

# We are having a baby

The journey from pregnancy to parenthood



- Pregnancy
- Childbirth
- Postpartum period
- Baby care and development
- Breastfeeding
- Growing into a family

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## You will be an excellent parent

With the birth of a baby, a mother and father are also born. You will grow into parents together with your child, learning many new things along the way, experiencing joys and overcoming challenges together. And you are worthy of support at every moment.

Dear future mother, Pregnancy is a natural state of your body and breastfeeding is a natural activity. Nevertheless, there may be moments when you will need support and information. You may have many questions, especially if you are carrying your first child. Your body is changing to accommodate the developing baby and you are likely to be more emotional or experience fear and doubts. Questions are part of becoming a mother, as are excitement, joy and learning to trust your body. You will definitely be a great mother!

Dear future father, Raising a child is a team effort. It works better when you openly discuss your roles and expectations with your partner. Make plans, but be open to changes. Your trust and support are crucial for your partner to feel safe! You are essential to your child and no one can replace you. You will definitely be a great father!

People say it takes a village to raise a child – we would add that a good support network is needed as soon as you are expecting a child. You do not have to know and be able to do everything right away and no one should have to raise a child alone. A family

needs a support network that can help increase the joys and guide them through the challenges of parenthood. Start building your support network early in pregnancy – this may include friends and relatives, grandmothers and grandfathers. Similarly, find those understanding specialists you need: midwife, obstetrician, family doctor and specialist doctor, lactation consultant, peer and crisis counsellors, psychologist and doula. Do not hesitate to ask them for advice and help!

The most important supporter on the journey of becoming a parent, and ideally a trusted figure within the family, is a midwife. Your midwife can already offer guidance while you are planning your pregnancy, offer support in its monitoring and with recovery after childbirth. You can also discuss nutrition, your newborn and relationships with them. If the pregnancy is proceeding without complications, you might only see an obstetrician during two ultrasound examinations and your midwife will help you discuss all other pregnancy-related topics during regular meetings.

We put together this book in collaboration with midwives, obstetricians, lactation and nutrition consultants, paediatricians and family doctors in order to support your family during this wonderful yet challenging time.

Maret and Irena, midwives





# We are thinking about having a child

Pregnancy planning

The challenging path  
to conception

How a romantic relationship  
changes when a child is born  
into the family

When getting pregnant  
is not easy

Infertility treatment



## Pregnancy planning

**Woman.** If you want to have a child, you should get a full-body check-up first. Visit a gynaecologist and a dentist and ask them to check if there are any hidden infections in your body. Infection in the body, including, for example, under the root of a tooth, can be an obstacle to the onset and progression of pregnancy. Moreover, treating an infection requires antibiotics and it is prudent to complete this treatment before pregnancy, so that your body does not have to deal with the effects of antibiotics while preparing to welcome new life. If you have any concomitant or chronic diseases, high blood pressure or diabetes, it is wise to discuss these matters with your treating or family doctor when planning for pregnancy.

**Man.** Men can also do things to prepare for pregnancy. While women have all their egg cells from birth, sperm in a man's body renews regularly.

Since the renewal cycle lasts 70-80 days, the man can take a couple of months before conception to cleanse his body. During this period, it is advisable to live especially healthily, avoid alcohol, energy drinks, protein supplements and steroids. Diseases and their treatment can also affect the quality and vitality of sperm.

**Relationship.** Think together about how your relationship will change once a child enters the family. Often, those who dream of their first child only know for sure what kind of parent they do not want to be. To achieve emotional readiness, it is good to discuss together what kind of mother and father you want to be.

Imagine what your daily life will look like with the baby. What role can the man take on when the new mother is completely occupied with taking care of the



baby and recovering from childbirth? Can the father take on the roles of cooking, grocery shopping and housekeeping, at least for the first few months? Or will you seek help from someone outside of the immediate family? Of course, you cannot plan everything in advance, but visualising can help you prepare for the upcoming life change. Tensions often arise because of things that have not been discussed, differences in backgrounds and the added element of fatigue. It is a good idea to attend parenting classes together, even if you're not pregnant yet.

Taking care of the baby will create a strong bond between the father and the child for a lifetime. The time immediately after birth is considered crucial – it has been found that a man who holds his newborn against his bare chest for at least a quarter of an hour immediately after birth and continues to do so in the following days builds a stronger attachment with the baby than a man who doesn't have this postnatal contact. According to fathers, thanks to skin-to-skin contact they understand the baby's needs better – physical closeness raises oxytocin levels and has a calming effect. The more equally both parents are involved

The most important thing for a baby is that they have a family where they are wanted.

with the baby, the less likely it is for the child to cling to the mother for several years and for the mother to become exhausted from constantly caring for the baby, which can strain the relationship.

Some couples keep postponing having children because the conditions aren't right. They don't have a house, a car, haven't built their careers yet. If this is the case, you should consider whether there is a place where the baby can be well cared for. If you have a desire to have a child, you do not have to delay it just because you don't have the perfect conditions yet. Everything will fall into place over time.

The most important thing for a baby is that they have a family where they are wanted. Also, keep in mind that a woman's fertility decreases quite significantly after the age of 35.

If it happens that you want a child, but your partner is not ready for parenthood, seeking counselling from a pregnancy crisis counsellor together might provide clarity.

**I will be going through this journey alone.** Raising a child alone is probably more difficult than raising a child together, but it is definitely not impossible. Many people have had to do it due to circumstances and there are more and more people who make a conscious decision to raise a child alone from the beginning. This decision requires courage and trust in life. In any case, a child born from such a decision brings a lot of joy.

Perhaps the right partner will come along after the child is born. Or you can get support from friends or your community. If you decide to have a child alone, carefully consider your support network: can your parents or friends help you? Or can you hire someone to help you?

If you feel that you need additional support, be sure to contact a pregnancy crisis counsellor.

## WHEN PREGNANCY IS UNPLANNED

A significant portion of pregnancies are unplanned or happen at a time before the couple have tested their physical readiness. There is no need to worry; most pregnancies proceed normally, and it is not humanly possible to eliminate all risks. Now, focus on mitigating the risks that you can control.

# The challenging path to conception

**Egg cells.** In the ovaries of a newborn girl, the primordial follicles of all the future egg cells are present. No new ones are formed later in life. There are approximately 400,000 of these egg cells by the time of birth. During a woman's lifetime, around 400 of them will mature. From the onset of puberty, usually at the age of 11-14, when the hormones start to affect the body, one egg cell matures in the ovaries every month. Egg cells are the largest cells in the human body and each of them contains 23 chromosomes. The maturation of egg cells continues throughout a woman's fertile years, usually until around the age of 50-51 when menopause occurs.

## **Ovulation and the menstrual cycle.**

Once an egg cell has matured, it exits the ovary and the flow of fluid carries the cell into the fallopian tube. A mature egg cell is immediately ready for fertilisation and its lifespan is about 24 hours. The release of a mature egg cell is called ovulation. If the egg cell does not encounter a sperm cell, it will die and exit the body through the vagina. The expulsion of an unfertilised egg, along with the uterine lining and blood, is called menstruation. Menstruation typically lasts four to five days. The time period from the first day of menstruation to the first day of the next menstruation

is called the menstrual cycle. Ovulation occurs approximately every 28 days and takes place about 14 days before the start of the next menstruation. Therefore, the fertile period in a regular menstrual cycle is usually between days 12 and 16. The body signals readiness to conceive: your breasts may be slightly tender and you may feel mild discomfort in the lower abdomen or lower back.

**Sperm cells.** When a boy reaches puberty, typically around the age of 12-13, his testes begin to produce sperm. A sperm cell, or spermatozoon, consists of three parts: the head, middle section and tail. The genetic information required for fertilisation is found in the head, along with granules containing biologically active substances. The

middle section is responsible for energy production and the tail provides the mobility needed to reach the egg.

The function of the sperm cell is to provide the man with offspring. It is well prepared for this purpose, being highly mobile and fast; sperm cells are estimated to move at about three centimetres per minute.

Sperm cells are among the smallest cells in the body, approximately 2000 times smaller than an egg cell. However, there are many of these cells: millions are released during a single ejaculation. Sperm cells that enter the uterus remain fertile for about three days. In favourable conditions, such as in the cervical mucus, sperm can survive for

A mature egg cell is ready for fertilisation and its lifespan is about 24 hours.

up to five days and still be fertile. However, when exposed to air, semen dries quickly and sperm cells lose their fertility within a few hours.

The male body is capable of producing sperm cells throughout a man's lifetime, even when erections no longer occur.

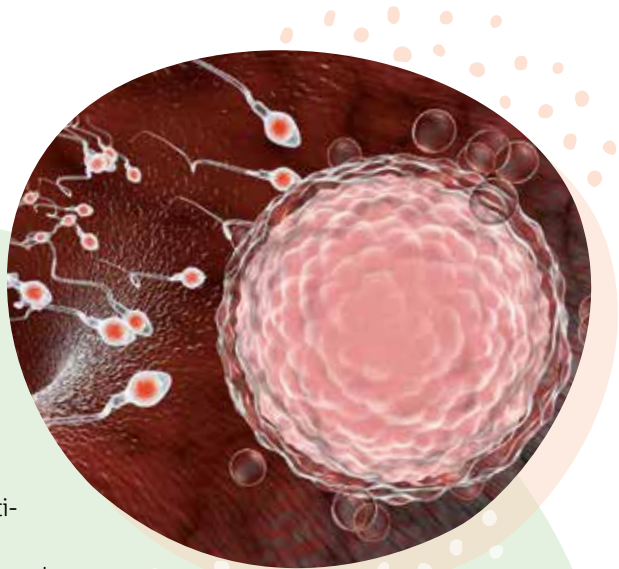
**Fertilisation.** Fertilisation is the union of an egg cell and a sperm cell in the fallopian tube. Sperm cells that reach the woman's vagina during ejaculation move rapidly towards the egg cell. Speed is crucial for them because sperm cells quickly die in the acidic environment of the vagina. After passing through the uterus, sperm cells reach the egg cell in the fallopian tube. The usual time for a woman's egg cell to reach the fallopian tube is about 70 minutes, but under the best conditions, during a woman's ovulation period, it takes only five to six minutes for the first sperm cells to travel from the vagina through the uterus to the fallopian tube. Both the tails of sperm cells and the rhythmic contractions of the uterus and fallopian tubes during orgasm assist in the movement.

#### DID YOU KNOW?

- In one milliliter of the average Estonian man's ejaculate, there are typically 50-70 million spermatozoa.
- Not all of these are viable. In a healthy man, 4% of the spermatozoa are of normal shape, while 96% may lack a neck or tail, have multiple tails, or an abnormal head shape.
- There are still enough viable spermatozoa in each ejaculate to fertilise one egg – for instance, among 50 million spermatozoa, 4% would still be a considerable 2 million.

On the journey from the vagina to the fallopian tube, the strongest sperm cells have distinct advantages. Hundreds of sperm surround the egg cell and collectively begin to break down the egg's membranes. However, only one, the most viable sperm cell, can fertilise the egg. The "cap" covering its head dissolves under the influence of a hormone produced by the egg cell. This allows the sperm cell to penetrate the outer membrane of the egg cell. Once the sperm cell enters the egg, the tail is left out, as it was needed only for movement. Afterward, the egg's membranes harden to block other sperm cells. This ensures that only one sperm cell's nucleus combines with the egg cell's nucleus. The last stage of fertilisation is the fusion of the nuclei.

The fertilised egg, now called a zygote, undergoes a series of divisions, resulting in the forma-



tion of a blastocyst by the sixth day. The implantation of the blastocyst into the uterine wall occurs on the sixth or seventh day after fertilisation. Once implanted, the zygote becomes an embryo. At this point, it can be said that pregnancy has occurred and new life has found a secure place to grow.

## Why am I not getting pregnant?

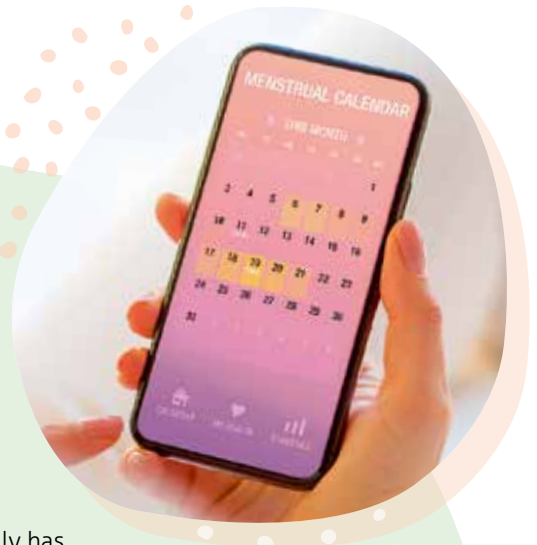
Getting pregnant may not always be easy. There are several reasons for that. Not all cycles in a healthy woman are ovulatory and a man's fertility can fluctuate. It may not always be possible to have

intercourse on the ideal day for fertilisation and there may be breaks in sexual activity. As a result, many couples go through periods of trying to conceive without success. These periods can sometimes be quite long, leading to concerns about possible infertility.

Sometimes, the issue is that the plan to have a child is too rigid. While being prepared is good, overly clinging to a plan can take away spontaneity. Spontaneity and the joy of sharing love are integral to the process of conceiving a child. Overly rigid pregnancy planning can have the opposite effect

## HOW TO SUPPORT CONCEPTION

- **Have frequent sex.** Conception is most likely for couples who have a regular and frequent sex life, ideally every day or every other day.
- **Aim for sex during ovulation.** If daily intercourse is too much, aim for two or three times a week, starting soon after menstruation ends.
- **Maintain a healthy weight.** Being both underweight and overweight can affect a woman's fertility.
- **Quit smoking.** Tobacco, including e-cigarettes, not only has harmful effects on the lungs but also reduces fertility.
- **Avoid alcohol.** Frequent alcohol consumption can decrease fertility.
- **Limit coffee consumption.** Up to two cups of coffee per day is the recommended upper limit.
- **Do not overdo it with exercise.** Very intense workouts exceeding five hours per week can cause you to miss ovulation.
- **Review your medication cabinet.** Certain medications can make conception more challenging.
- **Reduce stress in your life.** Stress, anxiety and depression impact fertility in both men and women.



and lead to stress. High levels of stress hormones can actually reduce fertility – the hormones produced by the bodies of a man and a woman who love each other and which support conception may decline due to stress.

Some couples take longer to get pregnant than others, but it is advisable to consider infertility testing only if you have been trying to get pregnant for at least one year. This means that you have been having regular intercourse, approximately two to three times a week, without using contraception. 80-90% of women conceive within a year and a significant portion of the remaining women conceive spontaneously within the second year.

**So what should you do?** If your patience is put to the test and the two lines are not appearing on the pregnancy test, try to track ovulation and time intercourse for the "right" days in addition to other days. Home ovulation tests are available at pharmacies and they accurately determine fertile days. Ovulation tests help detect the surge of luteinising hormone (LH) in urine, which occurs 24-36 hours before ovulation. If you have intercourse within 48 hours following the LH surge, it is likely to happen during the most fertile time. If there is no LH surge, it can be assumed that ovulation did not occur during the time when the ovulation test was taken. Ovulation tests are usually sold in packs of five – this amount is enough to determine the LH surge in a regular menstrual cycle. Each test can only be used once.

Avoiding certain substances can also promote fertility. For example, using lubricants during intercourse can become an obstacle to getting pregnant. It is also advisable to refrain from smoking, alcohol

and medications – these can also prevent you from getting pregnant.

Helpful tips can make a difference. For example, after lovemaking, you could lie down for about five minutes before going to the bathroom. Many women have a habit of urinating immediately after intercourse, but this reduces the chance of pregnancy.

If hormonal contraceptives have been used for a long time, it can also disrupt a woman's natural body functions. If your periods have not returned or are still very irregular a couple of months after stopping hormonal contraception, you should consult a gynaecologist.

The partners being calm and stress-free also helps with getting pregnant. We live in an exciting yet stressful time. Our bodies, emotions and thoughts are closely interconnected and stress can cause various physical ailments. The fast pace of life, stress at work and fears about coping keep the body in a constant state of excitement. When there is a lot of tension or anxiety in the body, it can be difficult to achieve a stable and harmonious state in which pregnancy can occur. A fertilised egg cell requires a lot of energy to grow, but a stressed body may not have enough energy for both the embryo and itself. There are stories of couples who have tried to get pregnant for a long time without success, but then it happened during a shared vacation. On vacation, their bodies and minds were able to relax.

It is said that children are the product of love, so the primary goal of sex should be the desire to express love to each other. Love is a powerful force. When sex is supported by love, and both partners enjoy it, the body produces hormones that promote fertility. If, however, the sole purpose of intercourse is pregnancy, they may not be produced.

Spontaneity and the joy of sharing love are integral to the process of conceiving a child.

And finally, it is good to know that every child chooses their own time to arrive. If you are still feeling stressed, discuss the situation with an obstetrician, midwife, family doctor or a pregnancy crisis counsellor to find reassurance and support.

## Infertility treatment

Natural conception is not the only way to have children in today's world. Statistics show that fertility issues are on the rise and in recent years, approximately every 8th-10th couple in Estonia faces infertility. While 20–30 years ago it was believed that fertility declines mainly with age and that the problem primarily lies with the woman, research shows that either partner can affect the outcome and lifestyle factors have become more significant. The causes of infertility can originate from the woman (30% of cases), the man (30%), both partners (30%) or be unclear (10%).

If you have had regular sexual intercourse for a year without achieving pregnancy, it may be reassuring to undergo fertility testing for both partners. Hormonal tests are used to assess the functioning of the woman's ovaries and the quality of the man's sperm. These tests also look for potential infections, overall health and other factors that may impact fertility. The testing process typically takes one to two months and a treatment plan is developed in collaboration with fertility specialists.

The most common method of assisted reproduction is the **IVF** (in vitro fertilisation) **procedure**, where the fertilisation of the egg cell and the development of the embryo occur in a laboratory setting, colloquially referred to as the "test tube." In this procedure, an egg cell is retrieved from the woman and combined in the laboratory with either her partner's sperm cell or a donor sperm cell. The embryo is then transferred to the uterus

on the third to fifth day. Following this, there is a 10–14 day waiting period until a blood test is performed to determine the presence of the pregnancy hormone, chorionic gonadotropin (hCG), which confirms or rules out pregnancy. Various factors affect conception and the success rate for a single treatment cycle is typically around 35–40%. When using donor cells, the success rate can statistically be over 60%. However, it must also be taken into account that some pregnancies resulting from fertility treatment may not last and multiple attempts

may be needed in order for a child to be born. Based on statistics, 85% of couples achieve a successful pregnancy after the third fertility treatment cycle.

As a result of fertility treatment, more than one embryo can result from a single cycle. In such cases, typically, one embryo is transferred and the remaining embryos are frozen. Embryos

can be stored frozen for seven years and used for future pregnancies if desired.

There are two other methods of artificial fertilisation. In intrauterine insemination or **IUI**, sperm is placed into the uterus using a special catheter and fertilisation takes place in the woman's uterus. In cases of male infertility, the **ICSI method** (intracytoplasmic sperm injection) is used, where a healthy sperm cell is selected under a microscope and injected directly into the cytoplasm of the egg cell using a micropipette. The ICSI method is used if previous IVF cycles have not yielded the desired results, if egg cells have been frozen previously or when the man has few viable sperm cells.

Emotionally, the process of fertility treatment is often challenging and time-consuming. Individuals going through this journey frequently experience high levels of stress, fear, anger, anxiety, depression,

Emotionally, the process of fertility treatment is often challenging and time-consuming.

denial, grief and a sense of losing control. Feelings of hopelessness, disappointment and defeat may arise. Therefore, peer counselling should be part of this process. It is recommended you visit a psychologist or a pregnancy crisis counsellor.

**Preservation of gametes.** More and more people want to focus on their career into their thirties and raise children at a later age. In such cases, egg or sperm freezing is an option. Gametes are stored in special containers filled with liquid nitrogen, where stable conditions are insured (-196°C). The cryopreservation of eggs is advisable for medical reasons when a disease or its treatment significantly impacts fertility. After treatment, women can use the preserved eggs in later assisted reproduction procedures. It will not guarantee the birth of a child, but it increases the likelihood of successful treatment and the birth of a biological child.

Men are advised to freeze sperm cells in a bio-bank for fertility preservation purposes, in the absence of a suitable partner, if they want to have a child after the age of 40, before undergoing chemotherapy or radiation therapy or when working in an environment that may decrease fertility. The quality of gametes can be negatively affected by smoking, certain medications, excessive alcohol consumption, drugs, obesity, hazardous substances in the environment, prolonged stress and excessive heat on the testicles (heated car seats, electronic devices).

## DID YOU KNOW?

- Fertility treatments have been available in Estonia since the 1990s. The first child conceived through assisted reproduction was born in 1995.
- In Estonia, fertility treatment is 100% compensated up to and including the age of 40. Starting from the age of 41, patients need to cover the costs themselves.
- Fertility treatments are allowed for women up to the age of 50.
- A mentally and physically healthy person can be a sperm donor up to 40 years of age and an egg donor up to 35 years of age.
- In Estonia, gamete donation is anonymous and sperm from one donor can be used for conceiving children with up to six different women.




## Fertility treatment is carried out by:

- Tartu University Hospital Women's Clinic
- East Tallinn Central Hospital Centre for Infertility Treatment
- West Tallinn Central Hospital Fertility Treatment Centre
- Elite Clinic
- Nova Vita Private Clinic
- Next Fertility Nordic Private Clinic

Services offered include fertility assessment, assisted reproduction and gamete freezing.







# I am expecting a baby

Signs of pregnancy

Physical and emotional changes

Your pregnancy journey

Your pregnancy journey  
with a midwife

What tests and examinations  
are conducted

Life during pregnancy

Preparing for childbirth





## Am I really... expecting a baby?

For many women, it all starts with a peculiar gut feeling. From the moment the foetus is implanted into the uterus, the hormones in the body begin working in a way that is most beneficial for the development of the baby. Some women clearly notice the changes happening in their bodies, while others barely feel or do not notice anything for a while. For this reason, it is good to know the signs that may indicate pregnancy. These signs may be indicative but are not definitive proof of pregnancy!

### Signs of pregnancy

- **Missed period.** The lining of the uterus, which is usually shed with blood during menstruation, now has a new and important role: providing a safe place for the developing foetus. The hormone progesterone produced by the ovaries helps to fulfill this role.
- **Tension in the lower abdomen.** Changes occur in the uterus and surrounding tissues. The stretching of the uterine muscle due to the growing embryo might cause a feeling of tension or mild discomfort.
- **Breast tenderness.** Breasts start preparing for the production of breast milk, increase in size due to developing mammary glands and are more sensitive.
- **Changes in the sense of taste and smell.** Tastes and scents that used to be tolerable may become intolerable and you can experience strong cravings for sour, salty, sweet, etc. flavours.
- **Nausea and vomiting.** This usually occurs in the morning but can happen anytime throughout the day.
- **Constant need to pee.** The increased need to urinate in early pregnancy is due to increased hormone levels.
- **Mood swings.** Fatigue and sleepiness occur, which may lead to unpredictable mood changes.

You may not experience any of the symptoms mentioned in the list and still be pregnant. At the same time, these signs may not necessarily indicate pregnancy: a missed period can have other causes, nausea and vomiting could be related to spoiled food, tension in the lower abdomen could be due to inflammation.

Some of these signs are familiar to women as indicators of an approaching period.

Sometimes, in the first few months of pregnancy, bleeding that resembles menstruation may occur, and the woman may not realise she is pregnant. A woman who is eagerly anticipating pregnancy or even fearing it may notice all these signs in herself, even if they are just a trick of the mind or physical symptoms triggered by thoughts, a so-called phantom pregnancy.

Therefore, determining pregnancy should not rely solely on intuition. The presence or absence of preg-

When determining pregnancy, you can not rely solely on your intuition. You should take a home pregnancy test.

nancy should be confirmed. If you have doubts, consider taking a home pregnancy test.

Pregnancy tests sold in the pharmacy are based on detecting the hormone hCG in urine. The test is performed using morning urine, as it is the most concentrated. Modern tests can detect pregnancy as early as ten days after conception. If only one line appears on the test strip (or in the control window), this is a sign of a correctly performed test. If the second line doesn't appear, there are

two possibilities:

- you are not pregnant,
- your pregnancy is in its very early stages and there is not enough hCG hormone yet; in this case, you can take another test after some time.

If there are two lines, that means the result is positive – you are pregnant.

If the test result contradicts your intuition, you can take another test after a few days. A pregnancy test does not indicate the duration of pregnancy, only its existence. The test also does not rule out the possibility of an ectopic pregnancy.

## MY FEELINGS, YOUR FEELINGS

When you have been eagerly awaiting pregnancy, you are likely to be filled with joy, enthusiasm and euphoria upon learning about your pregnancy. Alongside this, you may also feel fear and confusion. The same goes for your partner. Emotions can fluctuate widely during this time, you might be happy while shedding tears and it is common to experience fear and uncertainty regarding changes and your financial situation. Feeling anxiety is completely normal: will everything go well with the pregnancy? Will childbirth be painful? Can I handle it? How does my partner really feel about having a baby?

It is good to remember that all these emotions are valid. It is wonderful if you can openly discuss these things with each other, if it is normal in your relationship to express when you are feeling tired and not up to cleaning the house, going for a walk or having sex. Your partner will understand to let you rest, offer support and cuddle you. Even if there is no visible bump yet, your body is already undergoing changes that can cause significant fatigue.

## The three trimesters of pregnancy: from adapting to burden

With the growth of your baby, changes will occur in your body and emotions. According to international guidelines, pregnancy is divided into three trimesters as follows.

**1st trimester, the adaptation stage** (up to the 12th week of pregnancy). The first three months are a time of adaptation and uncertainty. Your psyche and organs are trying to adapt to changing conditions, you may experience nausea, vomiting, changes in taste and constipation. Changes in the body affect your mood. Feelings can be quite contradictory – you may feel happy and confused or anxious at the same time. Dealing with these conflicting emotions forces you to look deep within yourself and consider important topics.

**2nd trimester, the well-being stage** (weeks 13–28 of pregnancy). The following three months are a time of balance and satisfaction – you have adjusted to the knowledge of your pregnancy and are getting used to the changes happening in your body. As this is when you start to feel the baby's movements for the first time, you begin to form an emotional connection with them. Your conversations and thoughts revolve around the baby and you start preparing for childbirth and caring for your baby.

**3rd trimester, the burden stage** (from the 29th week until childbirth). The final three months are a period when pregnancy becomes physically more demanding. The baby is growing rapidly and exerting pressure on the neighbouring organs of the uterus, causing functional disruptions. It is possible that anxiety about childbirth and your role as a mother may increase, while at the same time you long to meet your baby. All of these experiences are a natural part of having a baby.

Changes during pregnancy are caused by an altered hormone balance and the production of new hor-

mones specific to pregnancy. The most important hormones that affect your body, psyche and the baby's development during pregnancy are hCG, oestrogen, progesterone and relaxin.

## Changes in the body

**Breasts** will increase in size and be tense and tender like before menstruation. Your nipples will also enlarge and the areolas will become darker. From the third month of pregnancy, a few drops of colostrum may be secreted from the breasts. The body is preparing to breastfeed the baby.

**Uterus.** Before pregnancy, the uterus weighs 50 grams. By the end of pregnancy, it weighs around 1 kilogram. This is due to the growth of the uterine muscle layer and increased blood supply. During the second half of pregnancy, hormonal effects lead to periodic contractions of the uterine muscles, causing your abdomen to become tight and hard for a few seconds. This prepares the uterine muscle for childbirth. Consult with a midwife if you experience these contractions more than two to three times per hour and if they are accompanied by a feeling of heaviness in the lower abdomen.

**The placenta** is a temporary organ that grows in a woman's body only during pregnancy. It acts as a porous filter between the mother's and the baby's blood, protecting the foetus from harmful substances in the mother's blood and produces hormones necessary for pregnancy and childbirth. The placenta fully develops by the end of the fourth month of pregnancy. It is a vital organ for the baby – through it, the baby receives nutrients and oxygen from the mother's blood and, in turn, releases metabolic waste products into the mother's bloodstream. Thanks to the placenta, there is no direct contact between the mother's and the baby's bloodstreams. The umbilical cord connects the foetus and the placenta. It is approximately 50 centimetres long, 2–3 centimetres in diameter and very slippery. Thanks to this, the umbilical cord rarely

The second trimester is a time of balance and contentment.

forms tight knots or squeezes the baby. The umbilical cord contains one vein that carries blood to the baby and two arteries that return blood to the placenta. Through the umbilical cord, the baby receives immune protection that lasts for the first six months after birth, which is further supported by breastfeeding after birth.

**Vaginal discharge** may increase at the beginning of pregnancy and last throughout the entire pregnancy. This is normal and is due to increased blood flow to the vaginal mucosa. In case of an infection, the discharge may change in color, have an unpleasant odour or cause itching. Talk to your midwife to discuss treatment. Sometimes a small amount of bloody discharge may occur at the beginning of pregnancy, on the expected days of menstruation. It can also be a sign of a spontaneous miscarriage, so always seek help in case of bleeding.

**Nausea** is most common in the morning, caused by hormones. Sometimes, nausea is accompanied by vomiting. If you vomit more than two or three times a day and feel unwell, consult with a midwife. Nausea usually subsides by the 12th week of pregnancy.

**Constipation.** The hormone progesterone relaxes the smooth muscles in the intestinal walls. Food moves through the intestines more slowly, more water is absorbed back into the body, making the bowel contents drier, leading to constipation.

**Heartburn** is also caused by hormones. Normally, the lower oesophageal sphincter holds stomach acids in place, but progesterone also relaxes this sphincter. Heartburn may occur at the beginning of pregnancy, but usually occurs during the second half of pregnancy when the growing uterus exerts pressure on the stomach. Heartburn can occur on an empty stomach or after meals.

**The head** may occasionally ache as the body adjusts to changes in blood volume and blood pressure. Stress can also trigger headaches. Dizziness may occur when standing up quickly. This is due to reduced blood supply to the brain as your body adapts to changes in circulation.



## WEIGHT GAIN

During pregnancy, you can expect to gain about 10–15 kilograms. In the first trimester, weight changes are usually not very noticeable and your weight may increase or decrease by a few kilos. In the second trimester, weight change is about 250–400 grams per week, and in the third, 400–500 grams per week. In the last 1–2 weeks of pregnancy, there is usually no weight gain. Weight gain does not come only at the expense of the foetus: the placenta and foetal membranes together weigh about 700 grams, you have approximately 1.5 litres of amniotic fluid and the uterus also becomes heavier by about a kilo. The breasts grow and blood supply to other organs increases – this adds another 1–2 kilograms. The amount of blood in the body increases by 1 litre and the amount of fat tissue and the water content of tissues also increase.

**Heart and circulation.** The total blood volume increases by 1-1.5 litres during pregnancy. Blood pressure may slightly decrease in the first half of pregnancy and return to its previous level by the end of pregnancy. To ensure that enough nutrients and oxygen reach the growing foetus through the bloodstream, the heart has to work harder. By the end of pregnancy, the heart rate will increase by 20 beats per minute. During the second half of pregnancy, the enlarged uterus puts pressure on the inferior vena cava and pelvic veins, making it more difficult for blood to return from the lower part of the body to the heart, resulting in increased venous pressure. Increased blood flow to the mucous membranes can lead to nosebleeds, gum swelling and redness of the palms.

**Kidneys and bladder.** The kidneys' function accelerates and vascular permeability increases, which may cause the loss of necessary amino acids, glucose and vitamins from the body. This is normal and the body will recover what it needs from food. Due to hormones, the ureters expand, the flow of urine in them slows down and favourable conditions for infection are created. The uterus puts pressure on the bladder and this causes the need to pee more often. The need to go to the toilet increases for the first time at the

## HOW TO ADAPT?

The time of planning for and carrying a child is often described as the happiest period in a woman's life. You can only experience pregnancy a few times – pay attention to and enjoy the process you are in. If you are at peace with your body, it will not be difficult to accept the changes that come with pregnancy. Some women have never felt as beautiful as they do during pregnancy. Observing your growing baby bump, stroking it and looking at yourself in the mirror gives you a good feeling. Do not forget to take pictures! It is a meaningful gift for you and your child that will become more valuable with each passing year.

However, pregnancy is not all about positive emotions – in a sense, pregnancy can be viewed as a developmental crisis. When becoming a parent for the first time, no one has the preparation or sufficient coping and self-regulation skills to cope with the new situation and the increased responsibility that a baby brings. Adjusting to pregnancy can be quite a painful process. Every family, to a greater or lesser extent, has to deal



with these emotions before the birth of a child. With the arrival of each next child, the cards are shuffled again.

Take the time of change as an opportunity to learn. Everything happening between you and your partner is a normal part of the adjustment process, it teaches you to support and ask for support from each other and creates an opportunity to reach a new level in your relationship. If you find it difficult to cope with the changes that come with pregnancy, talk to your midwife or a pregnancy crisis counsellor.

beginning of pregnancy, and for the second time at the end of pregnancy.

**Anaemia.** Haemoglobin, the levels of which are monitored during pregnancy, is located in the red blood cells, consists of a combination of protein and iron and its role is to transport oxygen to the tissues. If there is a deficiency in iron, it leads to anaemia, which impairs the supply of oxygen to both you and the foetus. Therefore, it is essential for the body to receive sufficient iron during pregnancy.

**Varicose veins.** Hormonal changes can weaken the muscular layer of the vein walls. At the same time, the volume of blood flowing through them increases and the growing uterus puts pressure on blood vessels. This can result in the development of varicose veins in the legs, genital area and around the rectum. The latter are known as haemorrhoids.

**Pigment spots.** The nipples and the area around the areola, the anal region and the midline of the abdomen become darker during pregnancy. Due to pigment changes, butterfly-like spots may appear on the cheeks, or brown spots around the nose or mouth. They will disappear after childbirth. The uterus grows and stretches the abdomen, which can cause reddish-blue stripes on the skin of the abdomen, hips, thighs and breasts – pregnancy scars. The cause of their formation is not only the tightening of the skin but also hormonal changes that affect skin elasticity. After childbirth, these scars become lighter but do not disappear completely and do not require treatment.

**Itching.** Some women experience itching in the last half of pregnancy. Some feel itchy only on the skin of the stomach and legs, while others may experience itching throughout the entire body. This can be caused by an excess of bile pigment in the blood, which also makes the skin yellowish. This condition requires treatment, so talk to your midwife or obstetrician about it.

Regular physical activity, especially walking, can be beneficial.

**Back problems** are common towards the end of pregnancy. If you have a sedentary job or have had back issues before, you are at a higher risk of experiencing back problems during pregnancy. To prevent pain, maintain proper posture and do exercises that strengthen your back muscles. You may also find relief in physiotherapy or taping.

**Swelling** can be caused by the pressure of the uterus on major veins, hindering blood flow back to the heart and leading to fluid retention. Metabolic changes also contribute to this. Swelling typically occurs in the evening after a strenuous day and subsides by morning. If, in addition to the legs, swelling also occurs on your hands, face and abdomen and does not subside by morning, contact your midwife.

**Dizziness.** In the late stages of pregnancy, it can happen that your well-being deteriorates, you experience dizziness, ringing in the ears and a loss of consciousness. This is due to the pressure of the uterus on the inferior vena cava, which obstructs blood flow to the heart. You can quickly improve your condition by turning onto your side.

**Leg and muscle cramps** can result from fatigue, pressure from the uterus on nerves or too little magnesium in your diet. Regular physical activity, especially walking, can be beneficial.

**Shortness of breath.** During pregnancy, you need more oxygen to ensure normal growth and development of your baby. That is why your respiratory rate increases. At the end of pregnancy, the growing uterus may push the diaphragm upwards, limiting the expansion of the lungs during inhalation. This means that you do not get as much air as you need at once, and shortness of breath can occur with even a slight effort. An overly full stomach can also make breathing more difficult. When going for a walk, take your time so you can adjust your pace according to your comfort level.

## Dental health

Pregnancy does not prevent the treatment of dental and gum diseases or the removal of inflamed teeth. If dental treatment was left incomplete before pregnancy, if possible, continue it in the second trimester of pregnancy when nausea is no longer an obstacle and you can lie down for longer periods. Anaesthesia can also be administered during pregnancy – acute inflammation or severe pain does more harm to the body than anaesthesia. If necessary, X-rays can also be taken during pregnancy. However, teeth whitening, dental implantations, planned tooth extractions, etc. are not recommended during pregnancy.

To keep your teeth healthy after pregnancy, pay extra attention to your oral health while expecting a baby. Hormonal changes during pregnancy and/or poor oral hygiene can lead to gingivitis, or inflammation of the gums. This can cause bleeding gums, a bad taste in the mouth and bad breath. If your gums start bleeding and show changes (gingival overgrowth), consult a dentist immediately.

If you have had gingivitis before pregnancy, be sure to have your teeth professionally cleaned by a dentist during pregnancy. If you feel nauseous and vomit during pregnancy, do not brush your teeth after vomiting, but rinse your mouth with clean water, because stomach acid softens the tooth enamel.

Know that your baby's dental health is directly dependent on the mother and father, as well as the influence and oral health knowledge and habits of close relatives and caregivers. Pregnancy and the postpartum period are the best times to make necessary changes in the family's lifestyle if needed.

Pay extra attention to your oral health while expecting a baby.

For more information about oral hygiene for the whole family, visit the website [suukool.ee](http://suukool.ee).

## Vaccination

Vaccination raises many questions nowadays. The World Health Organisation WHO and the Estonian Society of Obstetricians and Gynecologists recommend the following vaccines for expectant mothers:

- influenza vaccine, if the majority of your pregnancy takes place during the flu season;
- COVID-19;
- whooping cough to protect the newborn. This is recommended starting from the 27th and 28th week of pregnancy so that the antibodies have time to develop in your body and transfer to the baby through the placenta. This way, the child will be born with the antibodies. Whooping cough is very dangerous for a newborn. They cannot be vaccinated against whooping cough and their immune system itself does not form the antibodies.

Generally, vaccines containing inactivated or killed viruses or bacteria and their parts can be administered during pregnancy, for example against hepatitis A, diphtheria, tick-borne encephalitis, hepatitis B, tetanus, pneumococcal infections, meningococcal infections or rabies. Vaccines containing live bacteria or viruses, such as rubella, mumps, measles, chicken pox, tuberculosis, yellow fever, HPV (papilloma virus), are not administered. It is also not recommended to plan pregnancy before a month has passed since vaccination. If you get pregnant earlier, your doctor will monitor your pregnancy more carefully.

If you are planning to travel while pregnant, find out from the travel advice office which vaccines are required at the destination. If live vaccines are required, cancel the trip.



# Your pregnancy journey

Pregnancy is considered to last an average of 280 days, which is equivalent to 40 weeks or 10 months. So, which one is correct, 9 or 10 months? Both! Since a pregnancy month consists of exactly four weeks, there are a total of 10 pregnancy months. However, since a calendar month has more days than four weeks, pregnancy lasts for 9 months according to the calendar. In this guide, we will be referring to pregnancy months. It is even more precise to keep track of pregnancy in weeks. Weeks are what healthcare professionals, including midwives and obstetricians, use to calculate your pregnancy.



# First month of pregnancy

(weeks 1–4)

Pregnancy is counted from the first day of the last menstrual period, not from the moment of conception. Since conception typically occurs around the middle of the menstrual cycle, by the end of the first pregnancy month, the baby is only two weeks old.

During the time of conception, the uterus prepares the environment for the baby's growth. You might experience slight nausea, be a bit irritable, your breasts may be tender and your sense of smell heightened. Your body is getting ready for pregnancy and your hormone levels are changing. The released egg creates a structure called the corpus luteum in the ovary, which produces progesterone and oestrogen. These two hormones play a crucial role in supporting the development of pregnancy.

Towards the end of the month, you might occasionally feel a slight tightness in your abdomen, resembling the onset of a menstrual period. This is a sign that the uterus is expanding.



By the end of the first month of pregnancy, the baby is approximately 1 millimetre in size. That is almost as big as a poppy seed.

**Your baby.** After the egg and sperm cell merge, the fertilised egg will start to divide while moving towards the uterus. By the time it reaches the uterus, the fertilised egg has developed into an embryo, which attaches to the uterine lining. This attachment point is where the placenta will later develop.

Your blood will now feed the embryo – the exchange of nutrients and oxygen between you will take place through the cells surrounding it. The first segments of the body develop from the cells of the embryo, which will later develop into the spine, brain and spinal cord.

## RECOMMENDATIONS FROM A MIDWIFE:

- Incorporate healthy lifestyle habits into your daily routine. Discuss with your partner how you can support each other in making these habits a regular part of your life.
- Eat a diverse, healthy diet and get enough sleep!
- Join a prenatal exercise group or follow a pregnancy exercise programme at home.
- Find time for regular outdoor walks or swimming.
- Take folic acid! It is essential for the development of the foetal nervous system. It is recommended to start taking it three months before planning a pregnancy and continuing until the 12th week of pregnancy.

Find time for regular walks or swimming.

# Second month of pregnancy

## (weeks 5–8)

You missed your period. You have probably already seen two lines on a pregnancy test – typically, the test confirms conception around the fifth week of pregnancy.

Your pregnancy is not yet visible, but your breasts may have increased in size and become very sensitive. You may experience weight fluctuations – you might have even lost weight if pregnancy has made you vomit. You may have developed some interesting taste preferences or certain scents that trigger nausea. There might be an increased need to urinate.

At this stage, this is caused by hormonal changes in the body. You might notice redness in the palms due to increased blood supply.

**Your baby.** At the beginning of the second month, the embryo resembles a tiny shrimp and floats in a fluid-filled sac. Grooves have formed in the head area, which will later develop into eyes and ears. The abdomen, chest and limb buds are developing and the body ends with a “tail”. The circulatory system is developing and on the 21st day of life, the baby’s heart starts beating.

It is a very busy time in the development of the embryo – it suddenly doubles in size. The baby can now be seen in an ultrasound as well. The head is much larger than the body, you can already see the eyes, nose, lips and tongue, along with primitive baby teeth. The lungs begin to develop, the “tail” starts to shorten, the hands and feet resemble small paddles with slits at the ends. By the eighth week, all the internal organs have formed, the spinal cord is established and the spine and ribs have started to form. Two layers of skin and muscles start to form. At this stage, doctors start to call the embryo a foetus.



By the end of the second month of pregnancy, the baby is 1.5–2 centimetres long and weighs around 20 grams. They are about the size of a raspberry.

### RECOMMENDATIONS FROM A MIDWIFE:

- If a pregnancy test confirms your pregnancy, make an appointment with a midwife. The best time to do this is between the 7th and 9th weeks of pregnancy.
- Be cautious with medications. Ask your midwife about taking them, but if you have not seen her yet, discuss it with your family doctor.
- To prevent nausea and vomiting, try to avoid having an empty stomach. Always have something to snack on! For example, a slice of bread, a cookie or some muesli can help. Ginger might also be beneficial.
- Eat healthily. If it is autumn or winter, add sprouts to your menu, as they are rich in vitamins.
- If you are constipated, get enough exercise, eat fruits and vegetables and whole grains, drink water. Use appropriate natural methods to soften your stool; take laxatives only on the recommendation of a midwife or obstetrician.


# Third month of pregnancy

(weeks 9–12)

Pregnancy develops every day; your body is changing and your emotions are fluctuating. Morning sickness can now become daytime and evening nausea. Do not worry, around the 11th week of pregnancy, nausea and vomiting start to subside. The placenta plays an increasingly important role in producing pregnancy hormones and stops nausea and vomiting by the end of this month.

**Your baby.** The baby's head is still considerably larger than its body, but it already resembles a human. By the end of the 10th week, the tail disappears completely, the legs become more distinguishable and fingers are longer. All the body parts are present, blood and bone cells are forming. The baby is moving, which can be seen on an ultrasound.

Towards the end of the month, the growth of the baby's head slows down, but the rest of the body continues to grow rapidly. Bones start taking their proper shape, although most of them are still cartilage. While the gender is determined at the moment of conception, initially, both male and female reproductive organs develop in parallel. Under the influence of hormones, only the reproductive organs of one gender continue to develop and the others regress, but the baby's gender cannot be determined through ultrasound yet. Organs begin to function: the pancreas produces insulin and the kidneys excrete urine. By the end of the month, the foetus has become a tiny human. The baby sucks its thumb and has developed a swallowing reflex. The placenta is fully functional, serving as the baby's lungs, kidneys, liver, digestive system and immune system.



At 12 weeks, the baby is 5–6 centimetres long and weighs around 60 grams. They are about the size of a plum.

## RECOMMENDATIONS FROM A MIDWIFE:

- Eat in small amounts and often. Avoid spicy foods.
- Talk about your feelings with loved ones and look for pregnancy support groups. If you are feeling down, talk about it with your midwife.
- Maintain physical activity – special prenatal exercises or swimming are beneficial for your health, strengthen your immune system, prevent mood swings and prepare you for childbirth.
- Drink water, as it eliminates harmful substances from your body and speeds up metabolism.
- Stock up on maternity clothes and special underwear. Buy a bra that provides good breast support.

By the end of the third month of pregnancy, the foetus has developed into a tiny human.

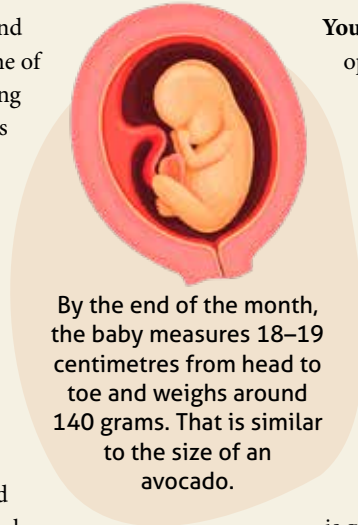
# Fourth month of pregnancy

## (weeks 13–16)

This is the beginning of the second trimester, the most enjoyable time of pregnancy. Your overall well-being is mostly good, your stomach has not grown much yet.

You may notice a dark line on the midline of your abdomen, the *linea nigra*, which will disappear after giving birth. The pigment on and around the nipples also changes. You may experience increased vaginal discharge, which is due to increased blood supply to the vaginal mucosa and higher glucose levels. You might also have headaches until your body adjusts to the changes in blood volume and vascular tone; dehydration can also trigger headaches.

At your midwife's appointment, you may be able to hear the baby's heartbeats using an electronic doppler device. Towards the end of the month, it will start to feel as if someone is blowing bubbles in your stomach. Pay attention to your body and what's happening inside and communicate with your baby.



By the end of the month, the baby measures 18–19 centimetres from head to toe and weighs around 140 grams. That is similar to the size of an avocado.

**Your baby.** The eyes of the foetus are developed, but the eyelids are still closed. The face and facial expressions increasingly resemble a human's: the baby frowns, pouts their lips, opens and closes their mouth. The intestines have separated from the umbilical cord and are inside the foetal body.

The muscular and skeletal systems have developed and the nervous system is gradually gaining control over bodily functions. Sensitivity to touch has developed: if the baby happens to touch their lips with their hand, it will trigger the sucking reflex. The baby's body is growing rapidly, their head is no longer as disproportionately large compared to the rest of the body. The ears look human and are quite close to their final position. The skin is thin and transparent, and you can see the blood vessels underneath.

By the end of the month, the baby's legs are longer than their arms, their palms are well formed and their fingernails are growing. The baby moves their hands and legs, kicking against the uterine wall.

### RECOMMENDATIONS FROM A MIDWIFE:

- Review your home. Now is a good time to make it a bit more child-friendly. If renovations are necessary, do not postpone them until the last months of pregnancy.
- If you have noticed any irritation in the genital area, it could be an infection. Talk to your midwife about it.
- When changing positions or getting up, do so slowly.
- You can relieve headaches by placing a cool, damp cloth on your forehead.
- Look for or purchase some comfortable, loose-fitting clothing; you will need them soon.
- Take care of your back and do exercises to strengthen your back muscles.

# Fifth month of pregnancy

(weeks 17–20)

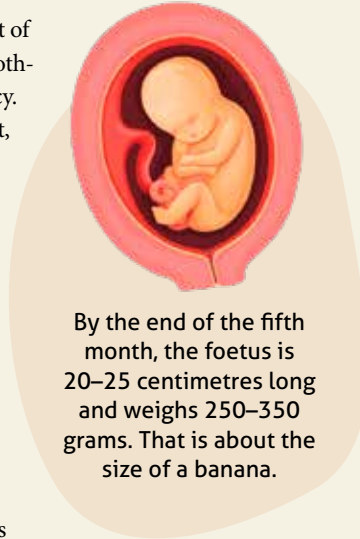
This month marks the halfway point of your pregnancy. It is only now that others will start noticing your pregnancy. Your hormones begin to balance out, your placenta gradually starts producing estrogen and you will start feeling more like yourself again.

The baby is moving in your stomach, although you will not feel all of their movements. Typically, the foetus is more active in the evenings, exercising their body by pushing their legs and head against the uterine wall.

The second trimester is usually more comfortable for the mother as there is no more nausea. You may experience dizziness when getting up suddenly, which is caused by reduced blood supply to the brain. You might also occasionally feel shortness of breath. You may develop varicose veins.

## RECOMMENDATIONS FROM A MIDWIFE:

- If you have older children, start preparing them for the arrival of a new sibling.
- Visit the dentist for a check-up if you have not already.
- Wear comfortable, low-heeled shoes.
- Elevate your legs when sitting. Avoid sitting with your legs crossed.
- If you notice varicose veins, wear maternity compression stockings. Before purchasing them, consult with a physiotherapist to determine the right stocking pressure. Put the stockings on in the morning while lying down with your legs slightly elevated.
- Perform pelvic floor muscle exercises, as it helps reduce the development of haemorrhoids and alleviates any discomfort caused by them.
- Sign up for prenatal classes.



By the end of the fifth month, the foetus is 20–25 centimetres long and weighs 250–350 grams. That is about the size of a banana.

**Your baby.** The baby is still growing rapidly. The skeleton is hardening and the foetus is covered in a white, cream-like substance called vernix. The body is covered in fine hairs that keep the vernix on the skin. This hair will disappear before birth. The eyes are still apart, the ears are nearly in their correct position. The foetus turns their head, makes sucking movements and facial expressions. Their immune system begins producing antibodies. If the foetus is a girl, her ovaries, egg cells, uterus and vagina are developing.

At the end of the month, the baby's growth slows down slightly. Subcutaneous fat begins to form, providing warmth. The foetus's heart beats 120–160 times per minute, approximately twice as fast as yours.

The placenta is larger than the foetus and covers half of the uterine wall. There is about 400 millilitres of amniotic fluid surrounding the foetus. Amniotic fluid protects the baby from shocks and maintains a stable body temperature.

# Sixth month of pregnancy

(weeks 21–24)

Your waistline has disappeared and your body is taking on softer curves. The body's center of gravity has changed due to weight gain and the growing uterus, which can lead to back pain. Pregnancy hormones may cause various changes: your fingers and toes may be swollen, your nipples may darken, spots or acne may appear on your cheeks and forehead, the palms of your hands and soles of your feet may redden. Hormonal changes during pregnancy and/or poor oral hygiene can lead to gingivitis, or inflammation of the gums. This can cause bleeding gums, a bad taste in the mouth and bad breath. If you experience gum bleeding and changes (gum hypertrophy), seek immediate dental care. If you have had gingivitis before pregnancy, be sure to have your teeth professionally cleaned by a dentist during pregnancy.



By the end of the sixth month, the baby measures 25–30 centimetres and weighs around 700 grams. That is about the size of a corn cob.

**Your baby.** There is still very little fat in the baby's body and they are rather thin. The baby is starting to practise breathing, has eyebrows, a bit of hair on their head and their nails are growing. If the baby is a boy, his testicles have formed and have started descending into the scrotum. At this stage, the baby can already use their immune system to protect themselves from infections.

The baby's skin is slightly transparent, and the circulating blood gives it a rosy or reddish glow. As nerve tissues continue to develop, their movements become more coordinated. The blood supply to the lungs is developing, the baby swallows amniotic fluid, their kidneys are functioning and they urinate, but bowel movements typically do not occur until after birth. The baby already has vitality, but if born at this point, they would not be ready for life outside the womb and would require intensive care.

At the end of the month, the baby begins to blink their eyes.

## RECOMMENDATIONS FROM A MIDWIFE:

- Stay hydrated and allow yourself plenty of rest.
- Take care of your feet. You can relax swollen feet by elevating them.
- Stand up slowly and support yourself, so as not to strain your abdominal muscles too much when standing up. Create a new habit: when getting up, roll onto your side first and then stand up.
- Discuss with your partner how you will organise your daily lives after the baby's birth.
- If you experience nasal congestion or nosebleeds, apply a little petroleum jelly to each nostril. Air humidification can also help.
- Start talking to your baby with your voice because they can hear you now. For example, you may make it a habit to sing a lullaby to them in the evenings.

At the end of the month, the baby begins to blink their eyes.

# Seventh month of pregnancy

(weeks 25–28)

You have adapted to pregnancy, your moods are no longer as erratic. Red stretch marks, or striae, may appear on your abdomen, hips and breasts. If your eyes become sensitive and dry, use eye drops. Constipation should have improved by this stage of pregnancy, but you may experience heartburn. Avoiding fatty and fried foods and eating smaller meals can help alleviate this.

At times, especially in the evenings, you may feel your abdomen tightening. These are painless uterine contractions that occur during pregnancy. If you have trouble sleeping, take a walk outside before bedtime. Sleeping can be made more comfortable by placing a pillow between your legs and sleeping on your side. If you feel cramps in your legs or other muscles, they may be caused by fatigue, pressure from the uterus on nerves, too little magnesium or too much phosphorus in your diet.

Your uterus has now grown up to your ribcage. You have probably noticed increased vaginal discharge – its acidic environment helps protect you and the baby from infections. You may feel dizzy, which is normal. Drink plenty of water, as it helps eliminate waste products from your body through your kidneys.

The baby can distinguish your voice from other sounds.



Your baby has grown into a small human, measuring 30–37 centimetres and weighing around 1300 grams. This is approximately the size of an average cabbage head.

**Your baby.** Your baby already has eyelashes and hair and has developed a sense of taste. They sleep at regular intervals. The baby looks more rounded, although the skin is still wrinkled because there is no fat. Now, your baby responds to touch and light – if you shine a light on your belly, they will move in response. They can hear and distinguish your voice from other sounds. The sounds they hear are muffled because their ears are covered with the same waxy substance as the rest of their body.

If the baby were to be born now, they would likely require care and assistance in the hospital.

## RECOMMENDATIONS FROM A MIDWIFE:

- Make a decision about where you want to give birth and write down your preferences and wishes for childbirth.
- Consider whether you want a support person during birth. Discuss your expectations with them to find out what they are ready for.
- If you have not attended prenatal classes yet, start now.
- Continue with regular, gentle exercise, especially walking and yoga.
- Discuss with your partner where the baby will sleep, whether in a crib or with you in bed.

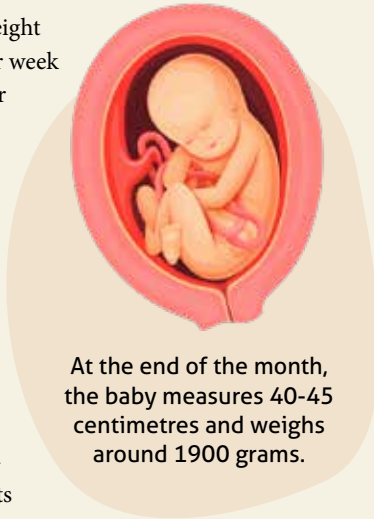


# Eighth month of pregnancy

(weeks 29–32)

You feel bigger and bigger, your weight gain can reach up to 500 grams per week and may also be noticeable on your buttocks. You might start to experience fatigue and discomfort and your sleep may be disrupted by the baby's activity.

Be sure to avoid constipation, as it can promote the enlargement of varicose veins. You may also notice swelling due to pressure from the uterus on large veins hindering blood from returning to the heart, resulting in fluid retention. The ligaments in the pelvic area have stretched to accommodate the baby – this can cause back pain. Occasional uterine contractions are normal at this stage of pregnancy. However, if you experience contractions that last up to 1 minute, occur regularly every 4–6 minutes and become more intense rather than subsiding within half an hour, go to the hospital where you plan to give birth.



At the end of the month, the baby measures 40-45 centimetres and weighs around 1900 grams.

**Your baby.** The baby is active and growing rapidly. Subcutaneous fat deposits are forming, the baby is becoming rounder and wrinkled skin is disappearing. The baby moves actively and turns their head down this month, usually staying in this position until delivery. You may notice that the head is down when you feel stronger pushes against your ribs. The lungs have developed to the point that if the baby were to be born now, they could breathe independently, but they would still require special care.

By the end of the month, the baby's skin becomes pink. If the baby is a boy, his testicles have descended into the scrotum. The baby's lanugo has disappeared, their eyebrows and eyelashes are getting longer and movements become less frequent but stronger.

## RECOMMENDATIONS FROM A MIDWIFE:

- Sleep on the side that is most comfortable for you. Usually, the baby's back is to the mother's left side, making it easier to sleep on your left side since the baby's back is there. If the baby's back is on the right side, it may be more comfortable for you to sleep on your right side.
- Monitor the baby's movements: lie down in bed and feel their kicks. The baby is doing well if they move at least ten times per hour.
- Avoid lifting heavy objects, especially above the chest.
- Practice relaxation and breathing exercises you have learned in prenatal classes.
- Take a warm bath with sea salt, use a sitz bath or sit cross-legged – this alleviates discomfort caused by haemorrhoids.

# Ninth and tenth months of pregnancy

(weeks 33–40)

Up to the 37th week of pregnancy, you will visit the midwife at least once a month, and then up to the 40th week, you will visit them twice a month. The baby's movements may be less frequent, but they are strong. The placenta weighs around 500 grams. Urination frequency increases for the second time during pregnancy as the uterus pushes the bladder against the pelvic walls, reducing the bladder's capacity.

When the baby descends into the pelvis, your breathing may become easier and you may experience less heartburn. This is because there is less pressure on the lungs and stomach. However, the organs below are compressed, which can lead to gas and constipation. You have gained about 10 kilograms and will not gain much more in the last month of pregnancy.

The baby is ready to be born by the 40th week of pregnancy. Enjoy every day before their arrival and try to get as much rest as possible.

## RECOMMENDATIONS FROM A MIDWIFE:

- Make sure you have someone close whom you can call in case your support person is not available when you go into labour.
- Plan out your journey to the hospital and pack the things you will be taking with you.
- Buy the essential items you will need for the baby and if necessary, arrange for someone to care for your other children during the birth.
- Avoid lifting heavy objects.
- Your breasts are now about the same size as they will be during breastfeeding – you should get a special bra for breastfeeding.
- Read as much as possible about newborns.



A baby's birth weight is typically around 3500–4000 grams and their height is approximately 50–52 centimetres.

**Your baby.** Nobody knows what might be going through the mind of an unborn child, but when they sleep, they dream and go through REM sleep cycles. From the 37th week of pregnancy, the baby is considered full-term and viable. The only thing they lack is a sufficient amount of subcutaneous fat, which helps regulate body temperature. The baby has most likely already turned to a head-down position, but they may continue to change positions if there's enough amniotic fluid. Most babies are born head first, but about 4% of babies are born in the breech position. The baby is preparing for birth by descending lower into the lesser pelvis.

Your baby hiccups, blinks, their pupils respond to light, they swallow, make breathing movements and urinate. Their hands can already grasp firmly, although there is no object to hold onto. At the end of the month, the baby's growth slows down. In the last weeks they gain about 14 grams per day. Movements become less frequent, but if you feel fewer than ten movements in an hour, go to the midwife or doctor for a check-up.

# The beginning of post-term pregnancy

## (weeks 41–42)

If the baby has not been born by the end of the 40th week of pregnancy, it is referred to as post-term pregnancy starting from the 41st week. The due date has passed, but your baby still wants to gather their strength inside you. Why some pregnancies go beyond the due date has not been fully explained. It is clear that labour is a team effort involving both the woman and the baby. The baby plays a bigger role in initiating labour.

By the 42nd week of pregnancy, it is considered overdue. In cases of overdue pregnancy, the woman's body can no longer provide the baby with all the necessary support, potentially affecting the baby's well-being. Therefore, it is not always safe to wait for labour to start on its own.

To help the baby come out, induction of labour is initiated from week 41+5. There are several methods for inducing labour and your midwife will discuss and prepare you for them.

### RECOMMENDATIONS FROM A MIDWIFE:

- Be patient and do not panic if your baby is not born "on time". About 80% of babies are born between the 37th and 42nd week and only 5% are born on the date the doctor has set as the due date.
- If you have gone beyond your due date and labour is delayed, you can help initiate it. Go for long walks, climb stairs, enjoy sex, saunas and kissing – these activities can potentially help start labour.



Enjoy each day before the baby's arrival and try to get as much rest as possible.



## Your pregnancy journey with a midwife

When you become pregnant, you gain a new confidant – a midwife. A midwife is a woman's support in all matters related to fertility. With them, you can discuss pregnancy, mental and physical health, nutrition, childbirth, the postpartum period, the baby and their feeding, family planning, sex and relationships. The midwife's office is a safe place to talk, cry and laugh.

Life will be easier if you find a midwife close to your home to monitor your pregnancy, because you will have frequent appointments during pregnancy and convenience is important. You can find a midwife at the health centre where you are used to visiting your family doctor, a maternity clinic at a hospital, a pregnancy centre, a maternity ward or another department that deals with pregnant women and newborns. Midwives work in youth

counselling centres and private clinics as well. You do not have to worry that if you choose a midwife working in a smaller clinic you might miss out on any tests – if they cannot be done on-site, the midwife will refer you to a necessary specialist at a larger centre.

If you do not have concomitant diseases and your pregnancy is proceeding normally, you can go through most of your pregnancy journey under the guidance of a midwife and only meet with a doctor on rare occasions, during ultrasound appointments. Your midwife is your support on the path to childbirth and they look forward to seeing you for postpartum visits. A trusting relationship is the foundation of good cooperation – if you do not feel like you click with your midwife, you have the right to change to another one.

## First visit

Schedule your first visit with a midwife during the 7th-9th week of pregnancy. Count the weeks not from the specific conception date but from the first day of your last menstruation. The purpose of the first meeting is to get acquainted, confirm the pregnancy and assess your health status. At the first appointment, the midwife will

- record your height and pre-pregnancy weight and check your blood pressure;
- ask about previous illnesses, surgeries, allergies and, if necessary, refer you to a specialist. Make sure to share your mental health history with the midwife;
- take a vaginal swab to test for sexually transmitted infections and, if necessary, for papillomavirus (HPV);
- perform an ultrasound with a vaginal probe to confirm the pregnancy, check if the pregnancy is in the right place, listen to the foetal heartbeat and rule out ectopic pregnancy and miscarriage.

Instead of an ultrasound, pregnancy can also be confirmed by measuring hCG levels in your blood;

- collaborate with you to plan your upcoming meetings and tests and book an appointment for the first-trimester combined screening, also known as the OSCAR test;
- estimate the start date for your expected maternity leave and the due date.

Once the pregnancy is confirmed and the plan is in place, you are officially in pregnancy monitoring, or “on the record”. The midwife directs the monitoring of your pregnancy. They schedule your tests, give you referrals and send you to doctors when necessary. In a normal pregnancy, you will meet your midwife 8 to 11 times – usually once a month, and every two weeks from the 36th week onwards.

You can access the results of your tests in the patient portal digilugu.ee. Important information is also recorded in your pregnancy booklet. This is a small paper book that you usually get after the first trimester ultrasound. You should carry this booklet with you during pregnancy. It contains your and your partner's personal information, your health history, test results taken during pregnancy, ultrasound findings, medications used and potential risks. The booklet is updated at each visit.

## YOUR SUPPORT NETWORK DURING PREGNANCY

**A midwife** provides support for women on topics from conception and pregnancy to birth and breastfeeding. If necessary, the midwife consults with an obstetrician, family doctor or paediatrician or sends you to a doctor.

**An obstetrician** deals with pregnant women when there are concomitant diseases or health issues.

**A family doctor** is also trained to monitor a normally progressing pregnancy and the health of both the mother and the baby after childbirth. If it happens that it is not convenient to visit a midwife, a family doctor can also monitor the pregnancy. In the event of risks and complications, they will refer you to an obstetrician. After giving birth, the family doctor monitors the baby's development and administers vaccinations.

## What is done during routine examinations

**Weighing.** At each appointment, the midwife will monitor your weight gain. Healthy weight gain during pregnancy is considered to be 10–15 kg. Depending on your initial weight, your weight may increase less or more and this may not be a problem. It is worth paying more attention to your weight if you gained more than 3 kilograms in one month or if you have already gained 10 kilograms by the 20th week. It is advisable to avoid excessive weight gain, as it is a risk factor for both you and the baby's health.

Most people are aware that as a result of excessive weight gain, the baby can grow too big, which increases risks during childbirth. Less known are the risks of gestational diabetes, the consequences of which can affect the child's future health. For example, maternal gestational diabetes is associated with the development of obesity, high blood pressure, diabetes and other health problems in the child's later life. The mother's own risk of developing type 2 diabetes also increases significantly as a result of gestational diabetes.

## GESTATIONAL DIABETES

Gestational diabetes, also known as *gestational diabetes mellitus* (GDM), is a carbohydrate metabolism disorder that develops during pregnancy and its prevalence is increasing worldwide.

During pregnancy, the placenta produces hormones that cause insulin resistance, which is why the pregnant woman's blood sugar levels rise. The development of GDM depends on how the balance of insulin and blood sugar adapts to pregnancy. While there are genetic factors involved in the development of GDM, lifestyle choices also play a significant role in triggering it. Gestational diabetes poses several risks, including the potential for miscarriage and premature birth, as well as the risk of low blood sugar in the baby after birth. In most cases, the baby adapts, and whether they develop diabetes later in life largely depends on their lifestyle choices.

Ideally, your midwife would like to see that you are already practising healthy lifestyle habits when planning for pregnancy, but it is extremely important to continue doing so during pregnancy. Discuss with your midwife what your level of physical activity should be and what to eat to prevent potential problems.

**Abdominal examination.** Your midwife will start measuring your abdomen from the second trimester. Specifically, they will measure the height of the fundus. To measure your abdomen, the midwife will ask you to lie down and expose your belly. More important than the numbers is the dynamics – if the growth of the fundal height has stalled, it will be necessary to perform an additional ultra-



sound to check how the baby is doing in the uterus. For this, the midwife will refer you to a doctor who will perform an ultrasound examination. Too rapid growth of the fundal height can also indicate pregnancy risks, such as gestational diabetes.

In addition to measuring the abdomen, the midwife will use a doppler to listen to the baby's heart rate from the outside. You can also hear it through a speaker. During the abdominal examination, the midwife will also notice if there are any skin rashes, signs of itching or dry skin, if the navel protrudes or if there are changes in moles. Bruises and scars will also be spotted, if there are any. To support your and the baby's well-being, discuss them with your midwife.

From the third trimester, in addition to observing the abdomen, the baby's position is determined – your midwife will palpate your abdomen and assess the position of the baby based on the body parts they can feel. If necessary, the midwife will refer you for an ultrasound examination to assess the condition of the foetus. By the middle of the third trimester, the baby should have turned into a head-down position.

**Blood pressure measurement.** One of the roles of pregnancy hormones is to ensure that oxygen and nutrient-rich blood reaches the developing foetus – these hormones dilate your blood vessels, causing a decrease in blood pressure early in pregnancy. You may notice this if you feel more tired than usual. The general normal blood pressure limit of 140/90 mm/Hg also applies to expectant mothers. If blood pressure values increase, your midwife will refer you to a doctor who will prescribe medication if necessary. PLEASE NOTE! Before measuring blood pressure, you should be at rest for at least 15 minutes without eating, avoid physical exertion and intense emotions.

**Urinalysis.** Your midwife will ask you to provide urine samples at almost every visit. During

the first appointment, a bacterial culture is taken from the urine to rule out asymptomatic infections, which can cause problems for both you and your baby's health. After that, urine strip analyses will be performed – during pregnancy, the most important thing is that there is no glucose, protein, white blood cells, nitrites or red blood cells in your urine. PLEASE NOTE! Before giving a urine sample, wash the genital area with water, gently pat it dry and then collect the middle part of your morning urine in a sample container.

**Blood analysis.** During pregnancy, venous blood is taken at least three times. In the first trimester, before the OSCAR test, you will have an analysis done of the hormones necessary for the first trimester screening, as well as viral diseases (HIV, syphilis, hepatitis B); the mother's blood group, Rhesus factor and antibody titer are determined; general blood parameters are assessed in a clinical blood analysis and fasting blood sugar levels are measured.

At the end of the second trimester (between the 26th and 30th week), a clinical blood analysis is performed to check haemoglobin, platelets and other indicators that may affect the course of pregnancy. Rhesus factor and blood group antibodies are also determined from the blood. If necessary, a blood sample may be taken at other times.

**Vaginal analysis.** Usually, a vaginal analysis is performed once during pregnancy – the sample is taken during the initial examination. In the context of pregnancy, it is important to rule out the most common sexually transmitted diseases, especially chlamydia, precancerous changes in the cervix and HPV infection. If there is vaginal bleeding, discharge with an unpleasant odour or consistency, itching or other discomfort during pregnancy, the midwife can take repeated vaginal samples.

It is advisable to avoid excessive weight gain, as it is a risk factor for both you and the baby's health.

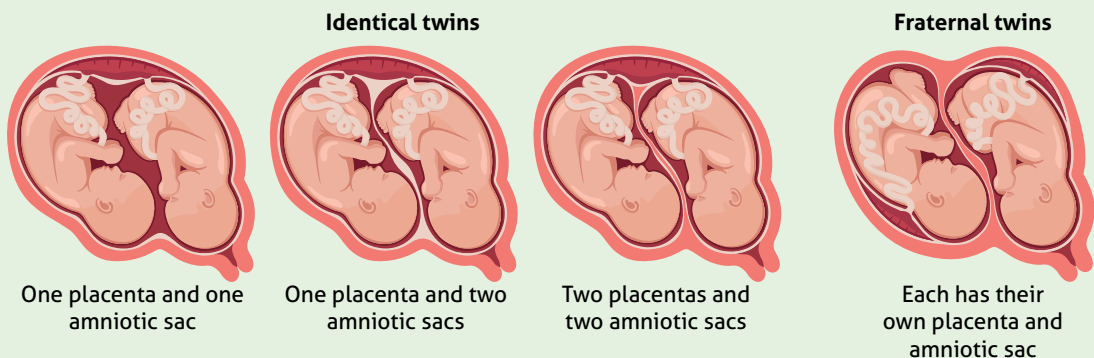
## MULTIPLE PREGNANCY

If you are expecting multiples, your midwife will monitor your and the babies' health more often than in a singleton pregnancy. You will also have more frequent appointments with an obstetrician because you will undergo more ultrasound examinations. The doctor will closely monitor the development of the babies, as they have a higher risk of growth restriction and premature birth.

For multiples who share one placenta, there is a greater risk of uneven blood circulation; you will have ultrasound scans every two weeks starting from the 16th week of pregnancy, more frequently if needed. If you are expecting multiples, each with their own placenta, you will have

ultrasound scans every four weeks starting from the 20th week of pregnancy.

Multiples are usually not carried to full term. Their delivery is scheduled between the 36th-38th weeks. The method of delivery will be determined by you and your doctor. A twin pregnancy does not necessarily require a cesarean section and you will have the option to successfully give birth to your twins vaginally. During the delivery, a larger team will be taking care of you compared to a regular delivery: an obstetrician (sometimes two), a midwife (or two), a paediatrician and a healthcare assistant responsible for cleanliness and comfort.



**Identical twins**, also known as monozygotic twins, originate from a single fertilised egg that has split into two embryos. Identical twins can have one or two amniotic sacs and they can also have one or two placentas. According to this they are divided into:

- twins with one placenta and one amniotic sac, or monochorionic monoamniotic, or mono-mono;
- twins with one placenta and two amniotic sacs, or monochorionic diamniotic, or mono-di;
- twins with two placentas and two amniotic sacs, or dichorionic diamniotic, or di-di.

**Fraternal twins** develop when two separate eggs are fertilised. Each foetus has their own placenta, or chorion, and their own amniotic sac, or amnion – there are two placentas and two amniotic sacs in your uterus. Such twins are said to be dichorionic and diamniotic, or di-di. Fraternal twins are the most common type of twins among multiples.



## Additional examinations and analyses

In addition to routine procedures, several additional examinations and analyses are performed during pregnancy.

**Ultrasound examination** provides many opportunities to assess the development and condition of the foetus. For example, ultrasound is used in the early diagnosis of pregnancy (the gestational sac is visible in the uterus in the 5th and 6th week of pregnancy), suspected miscarriage (the heartbeat of the foetus is usually detectable on an ultrasound by the 6th week of pregnancy), suspected ectopic pregnancy, determining the age and size of the foetus, diagnosing multiple pregnancies, as well as identifying foetal developmental abnormalities.

**The first ultrasound examination** that detects the pregnancy is a significant and important moment for the family, as future parents are seeing their child for the first time through a screen.

**The first trimester combined screening, or the OSCAR test**, is performed between the 11th and 13th week. Its purpose is to assess the risks of foetal chromosomal abnormalities and pre-eclampsia using ultrasound (so-called nuchal translucency ultrasound) and maternal blood hormone testing. Before the ultrasound, a blood sample is taken. During the ultrasound examination, a trained and certified specialist (either an obstetrician or midwife) measures the size of the foetus, examines their body parts and measures the thickness of the nuchal fold, which is the accumulation of fluid between the foetus's skin and soft tissues in the neck area. If there is a lot of fluid, it increases the risk of chromosomal abnormalities and developmental disorders. In this case, additional examinations will be offered.

The first ultrasound examination that detects the pregnancy is a significant and important moment for the family.

The second goal of the first trimester screening is to assess the risk of pre-eclampsia. For this purpose, data about your past health, height and weight are collected and entered into a software program along with blood pressure measurements and blood test results, which calculates the pregnancy risk. If it turns out that there is a high risk of pre-eclampsia and there are no contraindications, the doctor may recommend starting prophylaxis with a low dose of aspirin until the 36th week of pregnancy. The growth of the foetus and your health condition will also be closely monitored in the third trimester.

**The second trimester ultrasound examination, or the foetal anatomy scan**, is performed between the 19th and 21st week. Its purpose is to assess the development and growth of the foetus. When the pregnancy is exactly halfway through, the baby's organs are in a stage of development that allows the doctor to determine how well they have developed in relation to the size of the pregnancy.

In addition to assessing the baby's organs, the size and structure of the placenta and the amount of amniotic fluid are also evaluated. It is also possible to find out the baby's gender during this examination. This screening can detect about half of the developmental abnormalities in organs. Most babies are born healthy.

If the doctor or midwife finds it necessary to assess the baby's growth or well-being later on, **an ultrasound examination may be performed in the third trimester**. This is done only if indicated: if you have any concomitant diseases, such as gestational diabetes or high blood pressure, the uterus is growing too fast or too slowly, if there are concerns about the baby's movements, and it is also sometimes necessary for determining the position of the foetus.

## Special examinations

If your pregnancy is accompanied by peculiarities in your health or the development of the baby, your pregnancy progress will be monitored by specialist doctors and special examinations may be conducted. For example, if you have type 1 diabetes, lupus, rheumatic diseases or any other concomitant disease, your pregnancy will be monitored by an obstetrician and you will also have to see a specialist doctor. Shared care is also common, where some visits are with a midwife and others with an obstetrician. Information is shared between the midwife, obstetrician and other specialists, in which you also play an important role. If something unusual is found during a routine examination, you will be referred for further examinations for clarity and peace of mind. For example, if there are risk factors, early foetal heart examinations may be offered and, if necessary, early foetal anatomy examinations can be conducted as early as the 16th week of pregnancy.

Prenatal examinations are voluntary. Despite rapid advancements in medicine, no test can completely rule out potential abnormalities or guarantee the birth of a healthy child.

**Non-invasive foetal cell-free DNA tests (NIPT, non-invasive prenatal testing).** If the first trimester screening shows an intermediate risk for foetal chromosomal disorders, you will be offered the opportunity to do an additional blood test, the so-called NIPT.

The NIPT methodology and the NIPTIFY test developed in Estonia analyse cell-free foetal DNA fragments that circulate in the mother's blood. The NIPTIFY test is conducted on a sample of

## PRE-ECLAMPSIA

The symptoms of this condition include:

- high blood pressure and protein in the urine,
- rapidly developing swelling of the hands, legs or face, especially under the eyes, which leaves an indentation when pressed upon,
- headache that does not subside with painkillers,
- blurred vision,
- severe nausea or upper abdominal pain.

Rapid weight gain (2 kilograms or more per week) can also be an indicator of the development of pre-eclampsia.

The OSCAR test is the easiest way to identify women at risk of developing pre-eclampsia; thanks to intensive monitoring and prevention with aspirin, the number of severe cases has decreased. Pre-eclampsia currently occurs in about 2-8% of pregnant women.



your venous blood and is safe for the foetus. In the laboratory, DNA fragments from the placenta are separated from the mother's blood and analysing them allows for a very accurate determination of the likelihood of chromosomal abnormalities. For example, the detection rate of Down syndrome with the NIPTIFY test is 99%. If you have an intermediate risk or if an invasive procedure is contraindicated, the National Health Insurance Fund covers the cost of NIPTIFY, but you can also choose to purchase it yourself. It is important to note that NIPTIFY does not provide a diagnosis; it is a screening tool, just more accurate than the typical first trimester screening.

**Invasive foetal chromosome testing.** Diagnostic procedures that directly examine foetal chromosomes are amniocentesis and chorionic villus sampling. In these cases, a sample is taken either directly from the placenta or from the amniotic fluid and these tests are conducted only under specific indications.

**Amniocentesis**, also known as amniotic fluid testing, is performed to examine the chromosomes of the foetus, in order to detect potential chromosomal abnormalities in the child before birth and also when a developmental defect is found during a foetal anatomy ultrasound. During the procedure, the obstetrician uses a thin needle under ultrasound guidance to extract a small amount of amniotic fluid from the amniotic sac, inside which the foetus is located. The amniotic fluid contains foetal skin cells and metabolic waste. Amniocentesis is performed from the 16th week of pregnancy.

In **chorionic villus sampling**, chorionic cells, which are developing placental cells, are examined. The chromosomes of the cells in the chorion are the same as foetal chromosomes. During the

Cardiotocography (CTG) is a test used to monitor foetal heart activity.

biopsy, the obstetrician uses a fine needle under ultrasound guidance to extract a small piece of tissue from the placenta through the abdominal wall. The safest time to perform chorionic villus sampling is considered to be between the 12th and 13th weeks of pregnancy. For both tests, the risk of miscarriage is extremely low, less than 1%. You will receive the test results approximately three weeks later. If it is revealed that the foetus has a chromosomal disorder, you will be invited to an appointment with a genetic counselor, who will explain the nature and prognosis of the condition. Based on this information, you and your family can decide whether you wish to continue with the pregnancy. In Estonia, termination of pregnancy for medical reasons is legally allowed up to 21 weeks and 6 days of gestation.

**Cardiotocography (CTG)** is a test used to monitor foetal heart activity. CTGs are performed during labour for all expectant mothers. In addition to that, this test is offered to pregnant women whose foetus moves less than usual or when there is suspicion of foetal growth restriction. The normal foetal heart rate is 120-160 beats per minute. Starting from the 41st week of pregnancy, what is known as the beginning of post-term pregnancy, your midwife may direct you to have a CTG performed a few times a week to ensure the baby's well-being. Even though you may feel fine, the baby has less and less space in the uterus and a CTG provides a good overview of how the baby is doing.

You will be referred for a **glucose tolerance test (GTT)** if your blood sugar levels are higher than normal or if you have any risk factors: overweight (pre-pregnancy body mass index  $\geq 30$ ), previous gestational diabetes, diabetes in a close family member, a history of delivering a high birth weight baby ( $> 4500$  g) and/or polycystic ovary syndrome.

# Life during pregnancy

## Nutrition

During pregnancy, it is important to review your eating habits. Use the plate rule or the food pyramid as a reference – is your food selection balanced and does it include all the necessary nutrients?

**How much to eat?** You do not need to eat for two. In the first trimester, the additional caloric requirement is *about* 130 calories – roughly equivalent to one cheese sandwich. If you skip exercising due to fatigue, you will not even need the extra energy. In the second trimester, the additional requirement is 200 calories and in the third trimester, 300–350 calories. These calories apply if you were at a normal weight before pregnancy. Individual needs vary and moderate weight gain is important, but rapid weight gain can increase blood pressure and the risk of gestational diabetes. A suitable weight gain during pregnancy is 10–15 kilograms.

If your weight increases too quickly, you should reassess your eating patterns and food choices. In this case, it may be helpful to visit a nutritionist. If you start dieting on your own, it can lead to nutrient deficiencies, such as iron-deficiency anaemia. If you notice rapid weight gain, the first thing to

do is to cut out sugary drinks, including juices and sweetened water, sweets and sweet pastries.

**What to eat?** There is no perfect pregnancy menu because we all have our preferences. The principle is to follow the plate rule: choose a portion on your plate that is half vegetables, a quarter protein sources and a quarter carbohydrates. Eat at least half a kilogram of vegetables per day that are as varied as possible. Potatoes are classified in the carbohydrate group in nutrition, along with foods like buckwheat, rice, pasta, cereal, muesli and baked goods. For the latter, always check the

amount of added sugars on the product label. Choose carbohydrates like whole grain pasta, whole grain rice and whole grain products when you can. For protein sources, choose fish, eggs, dairy products, meat and legumes (peas, beans, lentils).

Dairy products should be unsweetened and preferably fermented, as proteins are more easily absorbed from them and they are also good sources of calcium. Fermented food also provides beneficial bacteria, which affects digestive processes, nutrient absorption, certain vitamin levels, as well as appetite and mood. Your gut microbiome is supported by everything else that is good for health: good sleep, exercise and low stress levels.

Eat a varied selection of at least half a kilogram of vegetables a day.

Instead of exotic fruits and especially sweet grapes, choose local berries as they contain less sugar and are rich in fibre. Fruits should be eaten as a snack together with nuts and seeds, as they help maintain better blood sugar balance. This reduces weight gain and balances mood, hormones and energy levels.

**How much water to drink?** Water is the best drink both during pregnancy and at any other time. You should aim to drink 1.5–2 litres of water per day, depending on your weight, physical activity, temperature and food choices. Muscle cramps, constipation or swelling can be symptoms of inadequate fluid intake.

**Are nutritional supplements necessary?** When planning for pregnancy, it is recommended to start

taking folic acid supplements and try to eat green foods, where folic acid is most abundant. Have your vitamin D levels checked early in pregnancy – if you have a deficiency, take vitamin D supplements throughout pregnancy and breastfeeding. If your diet rarely includes fatty fish or lacks it altogether, consider taking omega-3 supplements.

Discuss the use of multivitamins with your midwife or nutritionist. You should ideally be able to get all the necessary vitamins and minerals from food. This is possible if you can consciously direct and control your food choices.

If you are vegan, have your B<sub>12</sub> and iron levels checked; it would also be good to discuss your pregnancy menu with a nutritionist.

During the first trimester, you may experience nausea. Eating more often and smaller portions helps against this; also go for foods with milder smells and/or cold food. Experiment to find the most suitable way to reduce nausea.

During pregnancy, it is important not to make sudden changes to your menu, choose tasty and fresh foods, organic and local if possible, and adhere to hygiene rules when preparing and storing food. Animal products must be properly cooked and fruits and vegetables must be washed thoroughly. Dairy products should be pasteurised.



## WHAT TO GIVE UP

Avoid soft drinks and energy drinks. Do not drink any alcohol. If you want to drink coffee, strong tea, hot chocolate or eat chocolate, discuss it with your midwife, who can recommend the best quantity and frequency. Fast food may also tempt you, but it is better to avoid it because it is very calorie-rich but usually nutrient-poor.

Discuss nutritional questions with your midwife, or you can always consult a nutritionist. Nutrition is also a topic in prenatal classes.

**What about smoking?** Nicotine and pregnancy do not go well together. Smoking and e-cigarettes during pregnancy directly affect the foetus and can cause several complications. The most common of them are low birth weight, which leads to increased mortality and morbidity. Smoking or vaping also disrupts placental blood supply, thus affecting the supply of vital nutrients to the foetus. Passive smoking also has a harmful effect. Keep tobacco smoke away from your baby.

The same applies to all intoxicating substances that can be introduced into the body through smoking, eating, injecting or other methods. Drugs pass through the placenta, reach the foetus and affect them. The baby can be born prematurely, their development may not be age-appropriate and their immunity or emotional well-being may be damaged.

If you are a smoker or use other intoxicating substances,

quit. Overcoming addiction may not be easy and you may benefit from professional help. Free advice and support are available in counselling centres across Estonia. Many family doctors and nurses have received training and can help you create a plan to quit harmful substances, motivate you and prescribe medication, if necessary. You can find information about support options on the Health Insurance Fund's website under the addiction disorders section.

## Physical activity

Pregnancy is a good time to be physically active – your desire to provide the best for your foetus and create a positive childbirth experience can increase motivation. Additionally, your health is



## AEROBICS IS GOOD FOR YOUR BELLY

If you have been cautious about exercising and aerobics so far, start doing it now for the sake of feeling good and toned. Start with 5 minutes of aerobic activity per day and gradually increase the time every day until reach 30 minutes per day. Increase the load based on the "talk test" – if you feel that talking worsens the shortness of breath, take a break and rest. Join a group exercise class for pregnant women.

constantly monitored. Physical activity reduces the risk of gestational diabetes, high blood pressure and preeclampsia. It also decreases the likelihood of urinary incontinence, gives you more courage during birth, improves your ability to tense and relax your muscles and reduces anxiety.

If you are used to regular physical activity, you can continue it during pregnancy. The key word is moderation, not striving for personal bests. Discuss with your midwife what type and pace of physical activity is suitable for you because they are well aware of your health indicators.

During pregnancy, you should avoid competitive sports, jumping and avoid blows, falls and concussions.

Activities to avoid include all contact sports (ice hockey, basketball, football, boxing, etc.), mountain skiing, surfing, horseback riding, rhythmic gymnastics, underwater swimming and diving.

High-intensity exercise, i.e. more than 7 hours per week, may increase the risk of miscarriage during early pregnancy up to the 14th week. Pregnant women should engage in moderate-intensity aerobic activities for at least 2.5 hours per week. This kind of exercise elevates your heart rate above the resting rate and you start to sweat moderately, but you can still carry on a conversation. It is recommended to work out for 30 minutes a day, 5 days a week.

Suitable aerobic exercises during pregnancy include Nordic walking, walking, swimming and water aerobics. If possible, take the stairs! You can also do strength training in moderation, but the aim is not to look athletic but to maintain a healthy body weight.

For learning to relax, prenatal yoga and pilates are very effective.

For stretching muscles and learning to relax, prenatal yoga and pilates are very effective. They also help relieve lower back pain and control breathing during labour.

## Sleep and rest

Creating a new human being is hard work and the load keeps increasing over nine months, which can be quite tiring. Fatigue begins in the first months of pregnancy, primarily due to hormones. Allow yourself to rest and sleep when you are sleepy. If possible, take a short nap during the day.

In late pregnancy, finding a comfortable sleeping position can be a challenge.

During pregnancy, you can sleep in whatever position is most comfortable for you. Your bed should be supportive of your body: no visible sinking and a firm, body-conforming mattress. Use bed linens made from natural materials that do not make

you sweat and use several smaller pillows that can provide support for your body. For example, if you have a stiff back and back pain, it is good to sleep on your side with a pillow between your knees. In the case of heartburn, place an extra pillow under your upper body to elevate it slightly.

Sometimes pregnancy contributes to restless legs syndrome, which can disturb your sleep. This may be a sign that your body is not getting the essential minerals needed for foetal development. For leg cramps, try to elevate your legs as much as possible while sitting during the day and have your partner massage your legs in the evening. Discuss with your midwife whether taking mineral supplements and vitamins could be beneficial.

Your baby likes to move when you are resting. There is nothing to be done about it; take it as a

friendly greeting from your baby. If your bladder repeatedly wakes you up at night, try not to drink right before bedtime. This may not help because if the baby presses on your bladder, you just have to go. Instead, make sure you move outside during the day, take a warm bath or shower before sleeping, learn some relaxation exercises and turn off screens before bedtime.

## Sexuality

In most cases, sex is safe during pregnancy, even just before the due date. Your body is constantly changing during pregnancy and you will go through both physical and psychological changes that affect your sexuality.

The second trimester of pregnancy is often described by women as a period of increased sexual desire and there are usually fewer pregnancy-related discomforts during this time. This is when the body's estrogen levels rise, which improves blood

supply in the lower abdomen and pelvic organs. Similar changes occur in the vagina during arousal, which is why you may be interested in sex in the middle of pregnancy and enjoy it more than ever.

In the last trimester of pregnancy, you will be focused on the upcoming birth and the desire for sex may decrease. Towards the end of pregnancy, prefer sex positions that do not put pressure on the abdomen. All positions in which the woman is on top are also suitable because the woman can then take control. It is important that the penis does not put too much pressure on the cervix. Side positions are also good. The classic missionary position is only an option in the first trimester of pregnancy. Using pillows can make new and old positions more diverse.

Although an orgasm causes uterine contractions, they are not the kind that would indicate the onset of labour. A substance called prostaglandin, which is also found in sperm, helps prepare the cervix for birth, making it thinner, softer and more ripe. The same substance is used when necessary to induce labour. However, there is no need to worry because prostaglandin does not



## A HUNDRED WAYS TO SHOW LOVE

During pregnancy, it is especially important to talk openly with each other about your wishes, preferences and fears. Let your partner know that you still have needs as a woman and guide them in how you wish to express and receive love. Find other ways to enjoy each other – massages or satisfying each other with fingers, mouth and tongue can be enjoyable for both. Use the time of pregnancy to enjoy each other because when the baby is born, the nights and days will have a completely different focus for a while.



open the cervix until it is ripe enough for childbirth. Nothing from the outside world will reach the baby – the mucous plug, which is located in the cervical canal, protects the uterus from the entry of bacteria and sperm and the baby is also protected by amniotic fluid.

In some cases, it is still recommended to abstain from sex, for example when cervical insufficiency has been diagnosed or if you have had previous miscarriages or preterm births. Sexual intercourse is also not recommended if the placenta is attached too close to the cervix or in front of it, as there may be a risk of bleeding. Avoid sex if you or your partner have been diagnosed with a sexually transmitted disease.

Allow yourself to rest and sleep when you are sleepy. If possible, take a short nap during the day.

## Beauty procedures

Pregnancy is a time to pamper yourself. You will feel especially good when doing water-related procedures. Swimming and taking baths are not prohibited and the sauna is suitable for pregnant women as long as it is not too hot. It is good to stick to sauna temperatures that do not exceed 80 degrees. Higher temperatures may cause dizziness or palpitations.

Massages and body wraps are also allowed. There are special massages designed for pregnant women that promote relaxation and well-being. These are performed by specialists with proper training. Of course, you can get facial massages and visit spas if your health is good. You do not have to give up dying your hair, lashes and brows. Inform your hairdresser that you are pregnant and keep in mind that your hair may turn a different colour than usual. However, postpone getting tattoos – the pigment used might react differently in your body during pregnancy and the procedure carries a risk of infection.

You should not put your baby at risk with skin procedures that use acids, as most of them can affect the course of your pregnancy. An exception can be made for some acids, like azelaic acid. Laser treatments and photorejuvenation with an IPL device (intense pulse light) are not recommended because hormonal changes in your body can alter skin reactions and there is a risk of inflammation. For the same reason, you should postpone fillers, botulinum toxin injections, meso threads, mesotherapy, biorevitalisation and similar procedures.

Avoid spray tanning – although the tanning agent does not penetrate the skin, inhaling it is harmful to you and your baby. Choose skin care products and hygiene products that are as natural and neutral as possible.

## Travelling

If your pregnancy is going well, there are no obstacles to travelling.

**Air travel.** Air travel is not harmful to you or your baby, but you should discuss any pregnancy-related specifics with your midwife or doctor before flying. Most airlines allow travel up to the 36th week of pregnancy if your pregnancy has been without complications. The length of the flight and the documents that must be ready before the trip are also important. Sometimes you may need to pay extra for these documents and getting them ready takes time. It is safest to travel in the middle of pregnancy, when the early discomforts have passed and the growing belly is not causing discomfort.

The travel destination for a pregnant woman should be one with a well-functioning healthcare system and good food hygiene. Take out travel

insurance that covers all risks (maternity care, premature birth, change of return date, etc.). Remember to bring your pregnancy booklet with you so that you can provide relevant information to healthcare professionals if necessary.

If you are going to be sitting for more than 4 hours on a flight, it is recommended to have an injection to prevent thrombosis. During pregnancy, the risk of deep vein thrombosis is high and potentially life-threatening. It is also a good idea to wear compression socks purchased from the pharmacy, choose an aisle seat, drink plenty of water and stand up and move around frequently.

**Car travel.** If possible, avoid long car journeys. If they are planned, make regular stops and get out of the car to stretch and walk around. When sitting in the passenger seat, you can perform exercises like bending and rotating your legs and moving your toes. This maintains stable blood circulation and reduces stiffness and discomfort in the legs. It is also a good idea to wear compression socks.

During the trip, drink water regularly and eat healthy snacks such as fruits and nuts. Keep the air circulating and fasten your seatbelt so that the lower strap runs under your belly. You can also buy a seatbelt guide designed for pregnant women. If possible, do not travel alone.

**Sea travel.** Before going to sea, check the rules of the cruise line – most cruise lines do not allow passengers to board from around the 28th-32nd week of pregnancy.

When travelling, be sure to take your pregnancy booklet with you and get travel insurance that covers all risks.

## Working and rights during pregnancy

If you can afford it, reduce your workload during pregnancy and do not take on extra work. Do not work until delivery. Discuss with your employer how you can take rest breaks to stretch your back and move your legs. You have a legal right to these breaks.

While pregnant, you must not do work associated with danger: concussions, vibration, noise, radiation, too high or low air temperatures, hazardous chemicals, manual lifting of heavy loads, forced positions or movements that cause physical fatigue or overload. If your job falls into these categories, your employer is obligated to provide you with easier work or shorter working hours. If that is not possible, you can go on sick leave and the Health Insurance Fund will pay compensation. You also have the right to attend midwife and doctor appointments during working hours without having to stay at work longer in the evening for the missing hour. Your daily rate will not be reduced for the missed hour.

Pregnant women must not be laid off, except in case of the employer's cessation of activities. Also know that you can only be sent on a business trip with your consent.

**Parental leave and benefits.** Expectant mothers can go on maternity leave 30–70 days before the expected due date. The Social Insurance Board pays compensation for this. You must notify your employer at least 30 calendar days in advance of your maternity leave. A mother who does not work is entitled to maternity benefit after the birth of a child.

After the birth of a child, you and your partner have the right to parental leave and benefits. Since parental leave periods and benefit rates change over time, you can get the most up-to-date information from the Social Insurance Board's website at [sotsiaalkindlustusamet.ee](http://sotsiaalkindlustusamet.ee).



## Preparing for the birth of a child

Childbirth is an event you will experience only a few times in your life. It is natural to feel anxious about it. Childbirth is often the first major challenge in a woman's life. It is possible that you have never had the need to overcome yourself physically before, never had any experience with pain. You do not know how your body will react to pain and effort, or what your mind will do in a situation where giving up is not an option and you just have to keep going. Childbirth can be your first major challenge.

Be aware and explore different approaches to make your child's birth an event. Every woman's experience is different – if your friend had a negative experience with childbirth, it does not mean your story has to be the same. You create the story of your child's birth. What can you do for it? Sign up for childbirth preparation classes, attend discussion groups, prepare your body by participating in

prenatal yoga or water aerobics. Learn to relax. Learn to breathe. Learn to make an effort. Go for a walk every day. And when you are tired, rest and do not worry too much.

Most of all, work on your self-confidence. Believe in yourself and your body. Do you believe your body is capable of giving birth? If you think about giving birth and see more fear than excitement, discuss it with your midwife, pregnancy crisis counsellor or psychologist.

It is said that childbirth takes place in a woman's head. There is truth to this because the hormones that control many processes in our bodies are produced in the brain. Learn to manage your thoughts and focus on everything going well, then you will feel safe and cared for during labour. Oxytocin, which helps you give birth, is the love hormone. Think of labour pain as the powerful energy that you need to

give birth. Prepare for an ideal birth, but be ready for the fact that childbirth unfolds through the interaction of many variables.

## If you are planning a home birth

Since 2014, it has also been possible to give birth at home in Estonia. Every year, around a hundred women choose an assisted home birth. Home birth is a courageous and informed choice that may not be suitable for everyone. This choice can be affected by the distance from home to the nearest maternity hospital, the presence of pregnancy risks and the family's financial situation – while the state pays for a hospital birth, the family pays for a home birth.

For most people, their home is associated with a sense of security. A safe environment is one of the reasons why people choose to give birth at home. Be sure to discuss your choice with other family members. If your partner fears that they may lose control of a space they usually manage during a home birth, it could disrupt the atmosphere of the birth. If you have such fears, discuss them with your midwife. Sometimes, this fear cannot be overcome.

Women who give birth at home share a belief in the process and their own strength. Among those who have given birth multiple times, some have had a positive experience in the hospital and feel ready to give birth at home, while others have had a traumatic experience in the hospital and want a safer environment. The decision of a first-time mother is mostly philosophical and the experiences of others, including their fears, also play a role.

You can start planning a home birth at any time during your pregnancy. Some women already know

before pregnancy that they want to give birth at home, while others have the idea at the last minute. However, because home birth requires more thorough preparation, an earlier decision is better and ideally, at 36 + 6 weeks of pregnancy, you should discuss the birth plan with the home birth midwife.

If you want to give birth at home, start by discussing it with your midwife or obstetrician. You will meet with the midwife assisting the home birth a few times before the birth, but at the same time you will continue to have regular check-ups with your regular midwife or obstetrician. You can contact midwives offering home birth assistance

in Estonia through the Estonian Midwives Association website at [ammaemand.org](http://ammaemand.org). There, you will also find a home birth guide, which you should read.

The prerequisite for planning a home birth is a healthy mother and a low-risk pregnancy. Several conditions must be met for a home birth: you have attended regular pregnancy check-ups, done all the necessary tests, you have not had a previous caesarean section, your baby is healthy and your home is not more than 30 km away from the nearest maternity hospital, etc. Each visit to the midwife is like a new risk assessment because new circumstances can arise during pregnancy. Risk assessment ends only after giving birth.

Midwives who provide home birth services know that home births tend to be over-romanticised. Even though it takes place in a safe environment, birth is usually a long and powerful process. If the only reason for choosing a home birth is the fear of childbirth, the home birth midwife will refer you to a pregnancy crisis counsellor to begin with, because fear must also be overcome when preparing for a home birth. It is also useful to know that 40% of first-time births that started at home are

A well-functioning relationship is the source of your sense of security and the key to a positive childbirth experience.

transferred to the hospital for the safe continuation of the birth.

A couple's relationship is very important in the success of a home birth. A well-functioning relationship is the source of your sense of security and the key to a positive childbirth experience. Yes, you will be the one giving birth, but both of you participate in the process of home birth and the role of the support system is vital. Prepare thoroughly with your partner: read about what happens during childbirth, learn breathing and relaxation techniques and support each other, go to yoga and swimming classes and take courses. Be informed, but do not overthink. Be prepared for the unexpected. Be aware of postpartum processes and breastfeeding too.

The midwife assisting with the home birth will make at least one home visit before birth to get to know the environment you plan to give birth in. An experienced eye may notice things you might not think of. Plan and discuss with your midwife where

in your home the “birthing nest” will be. Many home births are water births, so prepare for that as well. A regular home bath or an inflatable birthing pool are suitable for water births. The environment should be clean and warm with a temperature of 23–24 degrees. It would be good to have running water and supportive people around during childbirth. How you feel is important – a home birth is a wonderful event for the whole family, but you get to choose who is present during childbirth.

## Who to give birth with

**A support person.** All Estonian hospitals allow giving birth with a support person. Choose someone close to you, whose touch feels safe and who wants to and is able to support you. In most cases it is your partner, but it can also be a friend, sister, mother or anyone else. Think about the support you need during childbirth and discuss your thoughts with your support person. Ask them what they are ready for.

**A birth supporter or doula.** You can also ask for a doula to attend the childbirth. A doula is an experienced birth supporter who has learned how to



## WHERE TO GIVE BIRTH?

You can choose the place of birth yourself. Choose a place where you feel safe or where it is convenient to go. The choice of location is limited if the pregnancy has not progressed smoothly, as it is safer to give birth in a large hospital. You can also choose to be monitored in one maternity hospital and give birth in another. Wherever you want to give birth, decide on it no later than a month before the due date, as uncertainty creates insecurity. Once you have made your choice, familiarise yourself with the birthing place and the journey there.

prepare for birth and support the person giving birth and can advise you during pregnancy, childbirth and postpartum. A doula is a great help to ensure that you are also emotionally well taken care of during childbirth. If you want to give birth with a doula, contact them well in advance. Doula services are paid and you can find a list of doulas on the Estonian Childbirth Support Persons Association's website [doula.ee](http://doula.ee).

**Individual midwife.**Hospitals also offer the option to bring your own midwife to childbirth. It doesn't have to be the midwife who monitored your pregnancy, but may be someone you chose from the hospital's website and whose service is paid. Meet in advance to discuss your wishes and feelings and determine if there is a connection between you.

**Father's preparation for childbirth.**If you have agreed to go to the hospital with your partner, take the time to talk about childbirth. Attend some parenting classes together. As a support person, it can be difficult for the man to accept the fact that they cannot help during childbirth or take your pain on himself. Some women fear that the man will see moments that are too intimate during childbirth – this is not true, as your support person is usually by your head. Childbirth can bring couples closer and certainly brings the father closer to the child.

The father's presence during childbirth is an agreement you make together and the father does not have to come against his will. Perhaps they are needed more at home to take care of the household or other children during that time. Discuss childbirth and its aftermath together, even if you decide that the father will not attend the birth. The father also needs understanding before a life change and the opportunity to share his uncertainty with a trusted person. It may be helpful to talk to another man – his father, a friend or a psychologist.

## Support network

You can never have too much support. Before childbirth, plan with your partner who will do what tasks before, during and immediately after childbirth. The father's first task during pregnancy and the baby's first year is to support the mother. Find out each other's expectations: would you rather have the father take care of the baby, walk and spend time with them from the first days, or would you be better supported if the father takes care of the household? Consider who from outside the home can provide support. It is smart to look into help before fatigue takes over. The better the support network is planned and the bolder you are in asking for help, the smoother and happier the baby's first year will be.

**Grandparents** will definitely want to do their part. Discuss during pregnancy how much they are willing to help and with what. Children develop an immediate bond with their grandparents – let it develop! Discuss during pregnancy how you want to raise your children and accept that the grandparents will do things their way anyway. It does not spoil children, it enriches them!

**Support person.**When the baby is born, most of your life will revolve around the baby. If you have friends with a similar-aged child, you can find a support person among them who can give advice and comfort because they know exactly what you are going through. You can also look for baby groups online or, even better, locally. You need to hear others' experiences and you might find a close person who can help babysit if necessary.

**Domestic worker.**Once the baby is born, you will need a new motto: when the baby sleeps, the mother rests. Discuss at home whether you need and can afford to hire someone who can help with cleaning or take the baby out occasionally.



## HOME PREPARATION

It is quite common for partners to feel the nesting instinct during pregnancy. If you do not have your own home yet, you might start buying or building one. The father may feel an elevated sense of responsibility for the family's well-being and creating a safe environment, which can lead to increased anxiety. Do not worry too much. Yes, your baby needs their own space and a dust-free environment. But the baby's "space" in the first months is mostly in the arms of their parents. Take it easy: at first, the baby needs the closeness of mum and dad and a warm nest to sleep in.

Your home does not have to be perfect, things will never be fully ready anyway. The baby will come into the family, adapt to family life and the home will evolve with the child. If necessary, it is a good idea to do a deep clean in the middle of pregnancy and think about what needs to be purchased when the baby arrives. If you have pets, consider how you can initially separate the animals from the newborn.

## WHAT BUY FOR MOTHER AND BABY DURING PREGNANCY

### For the mother

- **Maternity clothes** or simply comfortable, loose-fitting clothes to accommodate the growing belly. If you prefer a baby sling or a baby carrier, an oversized jacket or coat will be useful even after childbirth.
- **Large sanitary pads**, as you will need them immediately after childbirth, as well as large comfortable underwear, such as mesh panties.
- **Nursing bra.** You could buy this around the 38th week of pregnancy when your breasts are the same size as during breastfeeding.
- **Baby diary** to make notes about pregnancy and the baby's growth. It is amazing how quickly thoughts and feelings from this time are forgotten!

### For the baby

- **Onesie, shirt and pants with snaps** for a newborn. The child will quickly grow out of their first clothes, so it is enough to have only a few everyday clothing items. Have the next size ready in advance as well. Clothes with snaps or zippers and clothes that do not require taking off for diaper changes are convenient.
- **Outdoor clothing.** Depending on the season the baby is born, these may be warm or light overalls, gloves, socks, a thicker or thinner hat.
- **Bathing supplies.** Baby bath, soft bath towel, bath thermometer.
- **Skin care products.** Unscented baby cream and oil, unscented wet wipes, diapers. Buy a small pack of diapers initially to see if they are suitable for your baby's skin.
- **Car seat.** If you are coming home from the hospital by car, you will need a car seat right away.

You have time to buy other things after birth.







# Childbirth

Stages of labour

The journey with a midwife  
during childbirth

Active labour and the role  
of a support person

What relieves pain?

Giving birth at home



# How does childbirth begin?

## Stages of labour

Birth is an event – a long-awaited important day for you and a sequence of birthing assistants and specific processes, each with its own role in bringing the baby into the world. To describe what happens during childbirth more clearly, it is conventionally divided into three stages. The durations of these stages may vary, depending on whether you are giving birth for the first time or have given birth before. Transitions from one stage to another are smooth and can often be determined only afterwards.

**1. The dilation stage.** The early stage of this period, called the latent phase, is the time from the onset of the first regular contractions until the cervix is four centimetres dilated. Then begins the active phase of the dilation stage, at the end of which the cervix is nine centimetres dilated and the baby can move into the pelvis. At the end of the period comes the passive phase, during which labour may weaken and by the end, the cervix is fully dilated at ten centimetres. The dilation stage is the longest of the birth stages: an average of 18 hours for first-time mothers

and 10 hours for those who have given birth before. The right time to go to the delivery room is when the active phase begins – for first-time mothers it is when contractions have been regular every 4–5 minutes for 1–2 hours and for those who have given birth before, when contractions have been regular every 6–8 minutes for 1–2 hours.

**2. The expulsion stage.** Now begins the most demanding stage of childbirth, as the baby starts moving toward the outside world and passes through the birth canal. The space formed by the cervix and vagina is called the birth canal. This stage lasts 2–4 hours for first-time mothers and 0.5–2 hours for those who have given birth before. In the passive phase of the expulsion stage, the baby descends into the birth canal, but the mother may not feel it yet or may feel a very weak pushing sensation, mainly during contractions. In the active phase, the baby's head has reached the pelvic floor and pushing begins, lasting until the baby is born.

**3. The placental stage.** The placenta, along with the foetal membranes, is delivered. This takes an average of 30 minutes. The uterus contracts,

## STAGES OF LABOUR AND THEIR DURATIONS

Each childbirth is unique – the presented durations of the stages are approximate.

Stage of labour	First-time mother	Multiparous mother
The dilation stage	12–24 hours	6–14 hours
The expulsion stage	2–4 hours	0.5–2 hours
The placental stage	30 minutes	30 minutes

meaning you need to push a few more times to deliver the placenta.

## When to go to the hospital

From the 37th week of pregnancy, the birth of the baby is at term. The baby may not be born exactly on the midwife's calculated due date, but it will happen around that time. A few weeks before birth, vaginal discharge may increase, some women may lose the mucus plug a few days earlier. The baby drops before birth, increasing pressure on the bladder. You might get diarrhoea. The uterus also prepares for childbirth and you may experience false labour. If you are carrying your first child, it is not easy to distinguish these from real labour at the beginning. Therefore, when

contractions start, you should take a bath first if possible. The water should be body temperature and you should lie in the bath for about an hour. If they are false contractions, they will pass, but if it is real labour, the contractions will not stop and water can help speed up the birthing process. Taking a shower can also help.

Uterine contractions are like loyal guides that lead you from one stage to the next. The only difference is the speed – for some it takes two hours from the start of contractions, while for others it may take up to 12 hours before it is time to go to the hospital.

It is best to be at home until the beginning of the active phase of the dilatation stage. In a secure environment, it is good to move around, nap, breathe and relax. Trust and listen to your body; you can do it!

## GO TO THE HOSPITAL FOR A CHECK-UP IF

- you notice greenish, yellowish or brown amniotic fluid;
- you notice bleeding. Some bloody spotting is normal (likely the detachment of the mucus plug or tiny capillaries breaking during cervical dilation), but strong and continuous bleeding requires calling an ambulance immediately. Lie down until the ambulance arrives;
- you feel vague, constant pain in the abdomen and the uterus is rock-hard;
- you feel an urgent need to push;
- signs of the onset of labour occur before the 37th week of pregnancy;
- you have counted the baby's movements while lying on your side and got less than ten movements in one hour;
- you notice leaking fluid that does not just trickle quietly but rather comes out in spurts with movements over time;
- you have a strong headache, vision disturbances, ringing in the ears, swelling, upper abdominal pain and high blood pressure.



**False labour.** False labour, also known as Braxton-Hicks contractions, can occur throughout the entire pregnancy or develop towards the end. The uterus becomes hard to the touch and you may feel tension in the lower abdomen or back. Braxton-Hicks contractions do not open the cervix, are irregular and short-term and usually pass within a few hours.

**Loss of the mucus plug.** Loss of the mucus plug indicates that the cervix is shortening and slightly opening. You may notice a small amount of slimy bloody discharge on your underwear, resembling a small jellyfish. The mucus plug can come out unnoticed and sometimes it only comes out when labour is already underway. Loss of the mucus plug is not a sure sign of labour but rather an indication that the body is preparing for childbirth. You do not need to go to the hospital after the loss of the mucus plug.

**Monitor contractions.** Contractions come and go, although it may feel like it hurts all the time. Sometimes the baby's position may press on nerves,

causing pain between contractions. Mostly, the time between contractions is painless – use it! Relax your face and body, take a break. If you are able to lie down, take a nap. If lying down is not possible, move around the room. It is natural to feel anxious – relax and know that it will pass. You can eat something light, as you need energy and a good snack can also help distract you.

When considering whether to go to the hospital, monitor the time between contractions. Lie on your side, have a clock in sight and place your hands on your stomach. When the abdomen starts to harden, count the seconds – this is the beginning of a contraction. When the abdomen softens, the contraction is over.

A proper contraction lasts for 30–60 seconds. Measure the time from the beginning of one contraction to the beginning of the next. The rule of thumb is that for your first delivery, the best time to go to the hospital is when contractions have been

## BREATHE THROUGH THE CONTRACTIONS

When contractions start, use the breathing techniques learned in prenatal yoga and breathing classes. Adapt your breathing to what feels comfortable for you, find a position and breathing pattern that brings you relief. This is typically done by deep, slow, abdominal breathing. Inhale through your nose, exhale through your mouth. Relax your face, mouth, throat and neck. If possible, engage your abdominal side muscles and feel the air coming in through your nose and slowly moving out through your mouth. Focus your attention on breathing. This helps divert attention from the pain, making it easier for you to cope with contractions. Midwives at the hospital also guide breathing during labour.



regular every 4–5 minutes, last 30–50 seconds and have been like this for 1–2 hours. For those who have given birth before, consider going to the hospital if contractions have been regular every 6–8 minutes for 1–2 hours. If you live far from the hospital, start your journey earlier.

If you feel unsure, call your midwife or come to the emergency room at the maternity ward for an examination. It may not result in admission to the maternity ward, but you will gain reassurance and the on-call midwife will advise and calm you.

Ask a loved one to take you to the hospital. If no one can drive you, call a taxi or an ambulance. Do not drive yourself and do not use public transportation to go to the hospital.

**Rupture of the amniotic sac.** Labour does not always begin with contractions. If it starts with the rupture of the amniotic sac, check the colour of the amniotic fluid on white toilet paper or a pad. The amniotic fluid should be pink or clear and you may see white pieces of vernix. Small traces of blood are also normal. Write down the time your water broke and monitor the baby's movements. If the waters were clear, trickle quietly and the baby moves normally, you can stay at home with no worries for another 6–8 hours.

Usually, active labour begins within 24 hours of the water breaking. Amniotic fluid contains substances that signal to the baby and the mother's brain that it is time to cooperate to start labour. The uterus begins to contract and the baby's biomechanisms are activated, affecting the opening of the cervix.

It can also happen that the baby breaks the amniotic sac membrane with a finger or toe while turning inside the womb. This is called a high rupture of the amniotic sac and in this case, amniotic fluid is released periodically – in between it is completely dry, but when you move, some water comes out again. In this case, come to the hospital. A high rupture of the amniotic sac increases the risk of infection and you will be kept in the hospital for observation.

## WHAT TO TAKE WHEN GOING TO GIVE BIRTH

Giving birth is like running a marathon – take as little as possible with you.

In addition to essentials, pack something that gives you extra energy and restores your strength.

Bring along your

- pregnancy booklet,
- ID card,
- hygiene products,
- underwear and comfortable clothes for the postpartum period; if desired, your own nightgown for labour;
- larger sanitary pads for the days after childbirth;
- slippers or comfortable socks for the postpartum period,
- water, juice or herbal tea to drink; a bottle with a sports nozzle is convenient;
- something light to snack on, for example fruits and vegetables, nuts, candies; bring something more substantial for your support person to eat;
- clothes for the newborn, a hat, warm socks; diapers and other essentials will be provided by the hospital;
- nail file for the baby's nails – newborns have long nails and they can accidentally scratch themselves;
- clothes for the baby to go home in;
- if needed, a car seat for the baby to go home in.



## Your journey with the midwife during childbirth

### Hospital admission

The work organisation of hospitals may vary, but the initial steps are the same in most Estonian hospitals: when you come to give birth, you will be received by the midwife on duty in the emergency reception. In large hospitals, there is a separate admission department, while in some places, there is an admission room near the maternity ward.

In the admission room, the midwife performs routine procedures to assess the progress of labour: checks your well-being and the onset of labour, checks the opening of the cervix and monitors the baby's heart rate with a CTG. If labour is still in its very early stages, it is common for you to be advised and sent home to await further intensifi-

cation of labour. If you feel safer in the hospital or live far away, you will be admitted and a place will be found in the antenatal ward.

If the cervix is open 4–5 centimetres, the midwife will fill out the documents and you will be directed to the delivery room.

**Antenatal ward.** In the antenatal ward, necessary procedures are performed to intensify labour if needed, or your and your baby's condition is monitored. If your waters broke more than 16 hours ago, but labour has not started, infection prevention is started to protect you and the baby. Amniotic fluid and membranes have a protective function. If they come off and labour does not begin, the risk of infection increases. Support persons are not allowed in the antenatal ward.

**Delivery room.** You will stay in this room for the entire duration of the labour and at least two hours after the birth of the baby. You will be received in the delivery room by the midwife on duty. They will help you settle comfortably, show you where the shower and toilet are, introduce or bring aids such as a birthing ball, bag chair or exercise mat. You can discuss your wishes and preferences for delivery with the midwife and if you have a birth plan, you can review it together. If your delivery is progressing normally, the midwife will monitor the progress of labour and receive your baby. The midwife will also perform all the necessary assisting procedures during childbirth.

There is only you and those supporting you in the delivery room. The dilation stage of labour continues here until the cervix dilates to ten centimetres, the baby moves down the birth canal, fixes their head and the expulsion stage can begin. The midwife may not be constantly by your side, as they are also checking on other labouring mothers. But she is always within your reach, providing knowledgeable support in the journey of becoming a mother.

## Active birth

Active birth means that you lead your own delivery: choose your own positions, express your desires and choose the most suitable way to be during contractions. The more active your attitude during delivery, the better. In active birth, the birthing person is not a helpless bystander but an active participant in the process, understanding the situation and acting accordingly.

The prerequisite for active birth is the birthing person's awareness and the respectful attitude of the hospital staff towards the birthing person as a partner. If problems arise during childbirth that

threaten your or the baby's health, assistance is provided. If labour progresses normally, the process is allowed to continue.

To understand and control the childbirth process, you need to familiarise yourself with what happens in the body during childbirth already during pregnancy, learn to control your body and mind and trust yourself. A significant part of this is preparation. The preparation should include exercises that help you become familiar with the important muscles for childbirth, such as pelvic floor muscles and major muscle groups throughout the body, including the face. Correct, controlled breathing during childbirth is important and can be learned in advance so that it happens automatically during childbirth. The emphasis is on exhaling, with a relaxed mouth, for as long as possible, confidently vocalising in low tones.

The environment surrounding you is also important during active birth – light, sounds, smells. The people around you matter, too.

As an active birthing person, you do not wait for the baby to be born in bed but seek opportunities to facilitate and guide the birth through movement. The cervix dilates more slowly in a reclined position. If you move and stand, gravity helps the baby move down the birth canal. You can try sitting, walking, leaning forward, being on all fours, swaying, twisting your hips, rocking back and forth. This is how you can control what is happening. This can be combined with touch and massage from a support person, which activates the release of endorphins, which are pain-relieving hormones.

When you are scared and tense, your body produces pain-increasing stress hormones instead of endorphins. Do not be afraid to go to the toilet during the dilation stage – a full bladder prevents the dilatation of the cervix and the descent of the baby's head.

Active birth means that you lead your own delivery.

## MATERNITY WARD TEAM

The **midwife** monitors the well-being of the woman and the baby during childbirth either independently or in collaboration with other specialists. Typically, several midwives work in a maternity ward at the same time and they divide the arriving labouring women among themselves. The maternity ward has rotating shifts, meaning that the midwife who arrived at work at 8:00 finishes their shift either 11-12 hours or 24 hours later. Then a rested midwife takes their place. Depending on the work organisation of the ward and the current work pace, it should be taken into account that during the dilation stage of the cervix, the midwife is not constantly going to be in the delivery room but will regularly check in with the labouring mother. As labour intensifies, the midwife will be with you more.

A **lactation consultant** may be a midwife working in the postpartum department or a consultant called from outpatient care, specialising in preventing and resolving breastfeeding difficulties. All midwives can give breastfeeding advice.

A **gynaecologist** is called to the delivery if there are deviations from the norm in the birthing process. Sometimes it is enough to consult a doctor, assess the need for medication and correct the monitoring plan for the birthing person. Other times, it is necessary for the doctor to assist the labouring person with vacuum extraction or caesarean section. A doctor is also needed in the case of significant blood loss and problems arising from the birth of the placenta. An obstetrician also performs the sutures for extensive birth canal tears.

A **neonatologist**, or a newborn doctor, works either in the neonatal intensive care unit or examines the newborn in the postpartum department. A neonatologist is called to the maternity ward if the newborn needs assistance or an immediate postnatal health check. If the baby has



health concerns after birth, they are taken to the neonatal intensive care unit, where necessary procedures are performed under the guidance of the neonatologist. If the baby is healthy, a paediatrician will examine the newborn when they arrive in the postpartum department and before going home.

An **anesthesiologist** works in the operating room and is responsible for the administration of medications before and during surgery. The anesthesiologist is called to the maternity ward when epidural analgesia is needed. Together with the anesthesia nurse, they prepare the patient for the back injection, place the epidural catheter and mix the correct medication solution. If the childbirth ends in a caesarean section, the labouring mother will meet the anesthesiologist and anesthesia nurse in the operating room.

A **crisis counsellor** or spiritual counsellor is called to the maternity ward if something emotionally challenging has happened during childbirth.

In addition to these professionals, you will also meet the healthcare assistant and you might see student midwives on practice. If the presence of the students bothers you, you can tell your midwife.



**The role of a support person.** The role of a support person in the delivery room is to be your tireless helper. Their role is to provide the specific support you need. Women are different – some women do not want to be touched, but when the relationship is good, the presence of a loved one increases oxytocin and endorphin levels, thereby shortening labour and increasing satisfaction.

All of this encourages you and makes you a bit stronger. It can also happen that you start wanting privacy in the delivery room. Be bold in expressing this to your support person. If you want them to, the support person has to leave. Giving birth is your job and others can only support you, in the best way possible for the situation.

## The expulsion stage

When the cervix has reached full dilation – ten centimetres – the expulsion stage begins. Now the midwife is constantly with you, monitoring the descent of the baby into the birth canal. You feel increasing pressure on the pelvis and rectum. Your body generally signals when you should start pushing, but be sure to cooperate with your midwife, who will guide you on when to push harder and when to breathe and relax.

A baby can be born with just a few pushes, but it may also take several hours. You can speed up the birth process by telling yourself that you are brave and you are allowing your baby to come out. Relax and imagine the baby sliding out. You are very good at giving birth!

Even now, with the baby's arrival just an hour or two away, listen to your body and take the positions that are most comfortable. If you have the strength, use gravity – stand up, be on all fours, use a birthing stool. The midwife also recommends various positions and you can try them with her encourage-

ment. The most common birthing positions are lying on your side, on all fours, standing up, or on the birthing stool. You can also give birth while squatting.



## WHAT CAN A SUPPORT PERSON DO FOR THE LABOURING WOMAN?

- Be there for the person giving birth, acknowledge and praise her. Care, understand, fulfill her wishes. Calm and comfort her. Be the one for her to hold onto during contractions or lean on for support. Respect her wishes if she does not want to be touched, massaged or cuddled.
- Be aware of the stages of labour and encourage the labouring woman to go through them.
- Breathe together with the labouring woman. Help change and maintain positions. Massage and stroke.
- Offer something to drink and eat.
- Act as a mediator between the labouring woman and the medical staff.
- Share responsibility in decision-making.

The birthing bed is highly functional – it is comfortable to be on all fours, sitting and lying on the side. The supine position during childbirth is no longer recommended, as lying on the back closes the lower part of the pelvis, making the birth canal narrower. When giving birth in an active position, your tailbone can move aside as the baby is born, providing more space in the birth canal. The supine position is suitable only in cases of health issues in you or the baby where active intervention is needed.

During contractions, use your voice as support. The power of vocalising should not be underestimated, as it supports the progress of labour and helps alleviate pain. Labour is not the time to worry about what others are thinking about the sounds you make – focus only on yourself and the baby and do what feels right for both of you.

Water birth usually requires preparation. If you are planning to have a water birth, you should attend a special prenatal class to familiarise yourself with it. The use of a warm shower or bath during contractions as a mild pain reliever is common and possible in many maternity wards.

For many women, pushing the baby out is easier and less painful than contractions. However, it can take a lot of effort because you are likely tired and need to find strength to help the baby be born. With each push, the baby moves outward, but it takes some time.

The imminent end of childbirth is marked by the moment the baby's head is halfway out. At that time, cooperation with the midwife is crucial. Touching the baby's head can provide encouragement. It is good to know that the time between two pushes when the baby's head is partially out is very short. A few more pushes, and the baby's head, shoulders and then entire body are out. Congratulations, your baby is born!

## What relieves labour pain?

Coping with pain caused by uterine contractions begins with understanding what causes labour pain and why it is necessary. It is beneficial to know that your fear of the next contraction and childbirth increases tension in the body, thereby causing more pain. When you feel calm, stress-free and well, your body supports you with the pleasure hormones endorphins, which have a pain-relieving effect.

Non-pharmacological alternatives for pain relief include taking a warm bath or shower with water at body temperature, practising proper breathing, and staying active. During the active phase of childbirth, emotional support from a support person is also necessary to guide you through moments when your strength and self-confidence wane. Nowadays, alternative medicine options such as homeopathy, reflexology, aromatherapy and hypnobirthing are available to many – familiarise yourself with these options to choose from a variety of natural pain relievers.

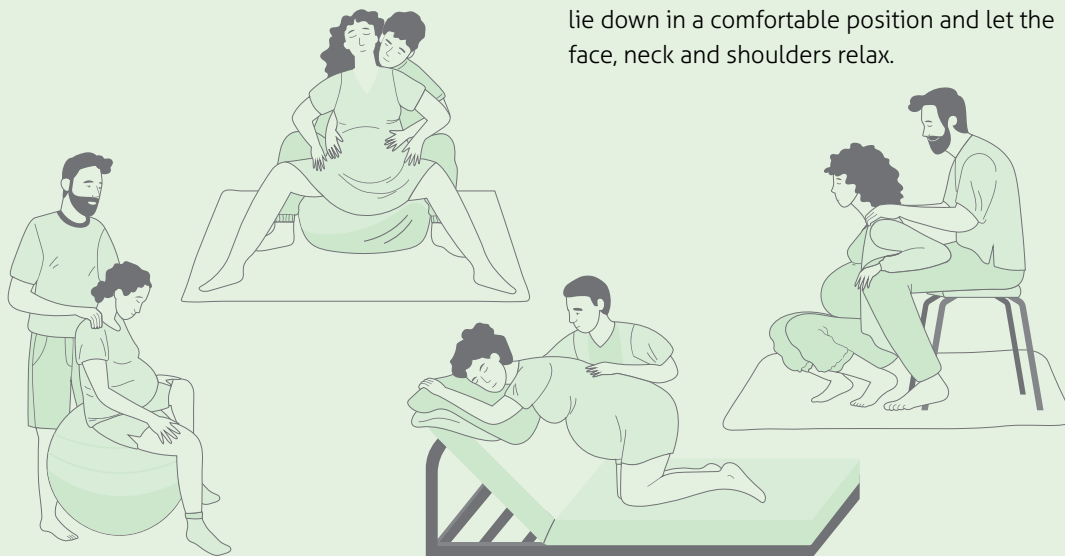
If you want pain treatment, inform the midwife. Mild remedies such as warm bags for your back, massage, movement and being in a suitable position can be helpful. The most effective pain relief methods include a warm shower, bath, massage, vocalisation, conscious breathing, relaxation inbetween contractions and maintaining a positive attitude toward childbirth and the pain you experience during it. Some women find bouncing on a ball, sitting on a bean bag or leaning on a walking frame helpful.

However, pain can be aggravated by the fear of pain or labour, incorrect breathing techniques, tensing up your body and lack of sleep. If you already feel heightened fear of giving birth during pregnancy, tell this to your midwife or seek advice from a pregnancy crisis counsellor.

During contractions, use your voice as support.

## PAIN RELIEF WITH THE HELP OF A SUPPORT PERSON

- **Hand pain points.** To massage the pain points, press with your thumb and forefinger on the top of the triangle formed between the thumb and forefinger of the birthing person's loose hand (these points are painful). PLEASE NOTE! This exercise can only be done during labour.
- **Pressure with thumbs.** Apply pressure with your thumbs on the hollows in the lumbar part of the spine while the labouring woman exhales.
- **Pressure with fists.** Press the lumbar region with your fists, you can also make circular, muscle-stretching movements.
- **Pressure with palms.** The pressure and stroking of the hands and warmth on the lower back also relieve pain. Warmth can also be placed on the back as a compress. Sometimes, cold might alleviate pain.
- **Lifting hips.** The birthing person is on all fours, leaning on a ball or a bean bag. Place a scarf under the belly and lift the hips during contractions with gentle pressure, allowing relaxation between contractions.
- **Back stretch.** During contractions, press your hands simultaneously on the upper and lower back and stretch your back longer.
- **Back stroking.** The person giving birth sits backwards on a chair, facing the backrest, legs apart, resting their upper body on the back of the chair. This position allows the support person to comfortably stroke her back – suitable for contractions and relaxation. Sitting in this way is not harmful to the baby during cervical dilation.
- **Neck massage.** The head and neck accumulate tension during contractions. Gently massage the woman's head between contractions, stroke her neck and shoulders.
- **Thigh relaxation.** Shake and massage thigh muscles and buttocks during contractions and relaxation.
- **Rest and relaxation.** During breaks between contractions, the birthing person can rest by leaning forward on a ball or a bean bag. Hip circles can also help to relax.
- **Relax facial muscles.** Between contractions, lie down in a comfortable position and let the face, neck and shoulders relax.



## Pain relief with medications

If natural pain relief methods are not enough, medications can be used. Often, the person giving birth may express a desire for more effective pain relief, or it may be suggested by your midwife or doctor if they see that you are exhausted. Timely administration of medication can ease the progress of labour and prevent excessive fatigue for both you and the baby.

Do not hesitate to ask for pain relief if you feel unable to cope with the pain. You have the right to change your decision – even if you came to the hospital with a wish to avoid pain medication, you can change your mind. Pain management is better than constant struggle and tension. The pain relief methods used in our maternity wards are safe for both you and the baby. For information about the side effects of medications, consult your doctor or midwife.

**Sterile water blocks or water papules.** In the early stages of labour, your midwife may offer water blocks. This is a pain relief method where distilled water is injected under the skin. You will feel a sharp stinging pain and a sensation of heat at the injection site, dispersing labour pains for approximately 60–90 minutes. Such water injections are safe for both the woman and the baby.

**Opioids.** These are used when the cervix is dilated 3–4 centimetres, contractions are irregular or very painful. They effectively relieve pain but may cause nausea and vomiting as side effects. It is not advisable to take a bath for a few hours after using these medications as they may induce drowsiness. If opioids are administered just before the baby's birth, they may have a depressive effect on the newborn's breathing.

**Laughing gas.** Nitrous oxide ( $N_2O$ ) or laughing gas is one of the most common medications for pain relief during childbirth. It is safe and can be used until the baby is born. Laughing gas is admin-

## PREMATURE BIRTH

Premature birth is considered when labour begins before 36+6 weeks of pregnancy. It is not possible to predict premature birth at the beginning of pregnancy. Risk factors include a history of previous premature birth, chronic illnesses of the mother, multiple pregnancy, foetal abnormalities, bleeding during pregnancy, vaginal or cervical infections, premature rupture of membranes, etc.

Modern medicine is capable of supporting the lives of babies born with a weight of at least 500 grams. Babies born between the 22nd and the 28th weeks of pregnancy weigh less than 1000 grams. Approximately 80% of premature babies are born between the 32nd and 36th weeks of pregnancy.

The biggest problem for a premature baby is often related to their lungs – before the 37th week of pregnancy, their lungs may not be mature enough for independent breathing in the outside world. Modern medicine can prepare a baby's lungs for birth and assist with breathing after delivery. Therefore, it is crucial to get to the maternity ward quickly when the first signs of premature birth appear. If possible, efforts are made to preserve the pregnancy to allow the baby more time to develop in the womb.

Premature babies are immediately taken to the intensive care unit. Their treatment can last a very long time as they require specialised

istered mixed with oxygen and you can breathe it through a mask held over your mouth and nose during contractions. Between contractions, you remove the mask and breathe normal room air.

The pain-relieving effect of laughing gas is moderate and for some women, it may cause drowsiness, nausea and dizziness. These complaints quickly subside when gas inhalation is stopped.

**Paracervical block.** In this method, a special long needle is used for anesthesia, with which the doctor injects the medication through the vagina into the area of nerve plexuses located under the mucous membrane next to the cervix. The procedure is no more painful or uncomfortable than a regular vaginal examination and effectively relieves the pain caused by cervical stretching. The effect of the paracervical block lasts for 1-2 hours. It is necessary to monitor the foetus using a CTG during the procedure.

Opting for pain relief is better than enduring constant struggle and tension.

monitoring and care, which, in Estonia, can be provided in larger centres, such as in Tartu or Tallinn.

The birth of a premature baby comes with fear and confusion. A whole team in the maternity ward supports you: midwife, doctors, nurses, psychologist and spiritual counsellor, paediatrician.

After leaving the maternity ward, find an opportunity to go to a pregnancy crisis counsellor with your partner or join a forum or support group for parents of premature babies. Talking to a psychologist or an experience counsellor can help cope with the unexpected life event and ease the emotional pain.

**Epidural analgesia.** Epidural analgesia is the most effective method of pain relief during childbirth. It offers the opportunity to rest a bit, especially if you have been in pain for a long time and the expulsion stage has not yet started. An anesthesiologist performs this procedure. The doctor uses an epidural needle to insert a thin plastic tube or catheter into the epidural space surrounding the spinal cord, where pain-relieving medications are then administered. You need to lie on your side or sit during the catheter placement and the condition of the baby is monitored with a CTG. Epidural analgesia is used when the cervix has dilated 3-5 centimetres and contractions are strong and regular. A single dose usually relieves pain for about 2 hours, after which a new dose of medication can be administered.

A potential side effect of epidural analgesia is a drop in blood pressure. To prevent this, fluids are infused intravenously before the procedure.

Sometimes, the medications used for anesthesia may cause itchy skin, weakness in the legs and difficulty emptying the bladder. A rare complication is a headache, which may require treatment. Epidural analgesia effectively relieves pain, but it may slow down the progress of labour and there may be a need to support contractions with oxytocin. Epidural analgesia also provides pain relief after childbirth and is continued, for example, when repairing perineal tears. Epidural analgesia is also used for C-sections.

**Single-dose spinal analgesia.** Single-dose spinal analgesia has a similar effect to epidural analgesia. The procedure is the same, but the medications used are slightly different and the duration of action is shorter.

## How and why is childbirth interfered with?

**Cardiotocography (CTG) or electronic monitoring of the foetus.** CTG is a procedure that measures both the foetal heart rate and uterine contractions. CTG is performed upon your arrival at the maternity ward and at certain intervals during the delivery. Foetal heartbeats are also listened to with a handheld doppler device at least every half hour, more frequently towards the end of labour. If there is a suspicion that the baby is not feeling well, it may be necessary to monitor them continuously using CTG.

**Vacuum extraction.** Vacuum extraction is an operation used when the progress of labour during the expulsion stage is weak, the foetus is experiencing acute oxygen deprivation or if pushing is contraindicated, such as in cases of maternal eye or heart disease. A baby born using a vacuum can develop a haematoma on the scalp in the

area of the vacuum nozzle. This typically goes away on its own.

**Episiotomy, or perineal incision.** Tears can occur during labour as the baby's head stretches the vagina and perineum, the area between the vaginal opening and the anus. Small skin tears usually heal on their own. Tears that involve muscles are recommended to be sutured, as torn perineal muscles will not grow back together on their own. This is done in the delivery room under local anaesthesia.

In some cases, a more extensive tear may occur, involving the muscles that control the anus or even



## HOW ARE TWINS BORN?

If both twins are in a head-down position, it is possible to have a vaginal delivery. A caesarean section is performed if one or both twins are in a breech position or if one baby is positioned sideways. Occasionally, the first baby may be delivered vaginally, but a caesarean section may be needed for the second baby. The birth plan for multiples will be made by your doctor and during delivery, there will be additional support – usually two midwives, a paediatrician, an obstetrician and a healthcare assistant.

Twins require special care in the hospital in approximately 50% of cases, especially if they are born before the 32nd week of pregnancy, weigh less than 2 kilograms or have health problems.

deeper, affecting the lining of the anus or rectum. Repairing these tears may require the woman to be taken to the operating room and anesthesia may be necessary. To prevent tears extending to the anus, an incision may be made in the perineum, allowing more space for the baby's head to be born. An episiotomy wound also requires stitching.

**Caesarean section.** A caesarean section, or C-section, is an operation in which the baby is delivered from the uterus through an incision made in the peritoneum and uterine wall. The majority of planned C-sections are performed under spinal anesthesia to prevent narcotics from entering the baby's system. This allows the woman to remain awake during the operation. In emergency C-sections where the foetus is at risk, it may not always be possible to administer spinal anesthesia.

The peritoneum is opened either with a horizontal or vertical incision and the uterus with a uterine muscle incision and the baby is lifted out. The placenta is delivered through the same incision and the incisions are sutured. In many maternity wards, the partner is allowed to be present during a planned C-section, staying by the mother's head and providing support. If the baby is feeling well, they can be placed on the mother's chest immediately after delivery so the baby does not miss the soothing skin-to-skin contact after birth. After delivery, the woman is taken to the intensive care unit for about six hours. The baby is brought to her chest there, but they will properly be together later in the postpartum ward.

Generally, getting out of bed is allowed the next day. Pain relievers may be given as needed, stitches are removed on the fourth or fifth day and you will usually be allowed to go home then.

In many maternity wards, the partner is allowed during a planned caesarean section.

## Induction of labour

Induction of labour is the initiation of labour before its natural onset. Induction is typically chosen when there is post-term pregnancy, intrauterine growth restriction, gestational diabetes, preeclampsia or other medical conditions, for example if the amniotic sac has ruptured and contractions have not started within the next 24 hours. Labour is also induced in the case of intrauterine foetal demise.

Induction can be done in various ways.

**Anniotomy**, or opening of the amniotic sac, is done during a gynaecological examination. The amniotic sac is opened with a sharp instrument. The procedure is painless, and labour usually begins within 1-2 hours. The prerequisite is that the cervix must be dilated at least 3 centimetres.

**Balloon catheter.** A small tube is placed in the cervix and a balloon at the end is filled with liquid to mechanically apply pressure on the cervix. As a result, the cervix softens and dilates. The balloon catheter remains in place until it spontaneously exits or until the next gynaecological examination.

**Oxytocin** is a hormone that physiologically induces uterine contractions and initiates labour. It is administered intravenously through a drip.

**Misoprostol** is administered as a tablet either orally or vaginally. This induces changes in the cervix, induces uterine contractions and initiates labour.

Labour usually begins within 24-72 hours of labour induction. Sometimes it is necessary to use more than one method. If, despite repeated attempts to induce labour, the cervix does not dilate, a caesarean section may be performed.



## Giving birth at home

Home birth is more private than giving birth in a hospital, only a midwife and your partner are present. A midwife alone is not enough – if it has been agreed that your partner will not be participating in the birth, invite a support person from outside the family or a doula.

**When to call the midwife for the birth?** If you notice signs of the beginning of labour, let your midwife know. If you would feel more secure in the company of your midwife, even if the frequency of contractions does not yet indicate an active phase, feel free to tell the midwife.

Home birth follows the same stages as in the hospital, but the difference is in the level of intervention in the process and how much control you have over the birth. The home provides a safe environment, and with proper emotional and physical preparation,

you have a good chance of feeling actively involved.

**Interventions in childbirth.** The midwife brings a set of equipment. While foetal monitoring in the hospital is primarily done using a CTG and following the guidelines, at home, the baby is monitored with an electronic doppler as needed, more frequently towards the end. The midwife observes the progress of labour by tracking the frequency of contractions and the dilation of the cervix through vaginal examinations.

Although interventions are less frequent at home, the assisting midwife will still monitor all necessary indicators and intervene if necessary for a safe delivery.

**After the baby is born.** The newborn is immediately placed on your chest, kept warm and you are given time to get to know the baby in peace. The midwife monitors the baby's condition, makes an



initial assessment of the newborn and assists with the delivery of the placenta. If needed, an oxytocin injection may be administered to help the uterus contract.

The midwife will support you as you begin breastfeeding, performs an examination of the birth canal and does sutures if necessary. The faster the tears are sutured, the easier the healing process will be. All this requires delicate action in order not to spoil the miracle of the arrival of the child, but not to allow health risks to arise. The midwife will stay with you for 3-4 hours after the baby's birth to make sure that everything is fine.

**Filling in paperwork.** While in a hospital, the baby receives an identification code within minutes and you are given a month to choose a name, the process is different at home. The midwife fills out the

documents immediately after birth and gives you a certificate of the child's birth. You must submit this certificate to the civil registry office. At the same time, you will receive a personal identification code for the child and must also choose a name. Within 3-5 days, you need to take the baby to a neonatologist and for this visit, you need a personal identification code – therefore, you need to visit the civil registry office before that.

The midwife organises the neonatologist's visit, provides documentation to the family and the family doctor and sends the data to the National Institute for Health Development for national birth statistics.

You will probably meet with the midwife who assisted the home birth during the postnatal visit, which you and the midwife will agree upon before they leave.



## IT WILL NOT BE EFFORTLESS AT HOME EITHER

At home, there are fewer options for pain relief than in a hospital. Typically, these are warm water, shower, bath, massage, hugs, encouragement, movement, vocalisations, breathing, aromatic oils, water blocks. Pain-relieving medications are not used. The walls of your home will not completely take away the pain of childbirth and you must be prepared for putting in effort. Even at home, there comes a moment when you will feel that you can not go on. If your midwife and support person can help you through this breaking point, you will have gotten past the most difficult part. Be honest about how you are coping with the pain and know that changes can always be made. Although you have planned a home birth, you can transfer to a hospital during a birth that started at home if it seems more suitable or if the pain is unbearable.





# We had a baby

Postpartum period

Your newborn

Life after childbirth

Changes in your body

Changes in your emotions

Relationship and  
the father's role



## Postpartum period

**Skin-to-skin contact.** Immediately after birth, the newborn is placed on your stomach and covered with a blanket. During this early postpartum period, the baby feels safe and warm on your belly, but care must be taken to ensure that the baby does not get cold. The baby is coming from the 37 degree environment in your body to the 22 degree environment of the delivery room, which is a sudden temperature drop.

A couple of hours after birth, newborns are alert and curious about their surroundings. This is the ideal time to get to know each other. Skin-to-skin contact in the first hours and days of life helps increase your sense of belonging, provides security for the baby and is crucial for their further development.

If the birth has gone as expected and there are no complications after the baby is born, the mid-

wife will let you get to know each other in peace. The umbilical cord will continue to pulsate for some time, providing oxygen for the baby until their lungs start working and the blood that was in the placenta at the time of birth returns to the baby's body. About 5-10 minutes later, the midwife will quietly analyse the umbilical cord (determining the baby's blood oxygen content and pH, for some babies also their blood type and Rh factor), clamps the umbilical cord and asks the support person to cut it if agreed upon, or makes the cut themselves. There is no need to fear that cutting will hurt anyone because there are no nerves in the umbilical cord.

**Delivery of the placenta.** The birth process ends with the delivery of the placenta. This occurs within 10-30 minutes. For you, this means a bit more pushing. Delivering the placenta is not

painful. It is important that the placenta and foetal membranes are born intact and no bleeding occurs.

**Examination of the birth canal and sutures.**

After the placenta is born, the midwife checks your birth canal – the cervix, vagina and perineum. If there are tears, the midwife stitches them up. For this, they will either give you local anesthesia or use the epidural analgesia that was used during childbirth. If possible, the baby is placed on your belly during this process. Rarely, more severe tears may occur, which an obstetrician will stitch up in the operating room. Most commonly, absorbable sutures are used that dissolve within 30–40 days. The midwife advises you on how to care for the stitches.

**Blood loss.** The average blood loss after childbirth is about 500 millilitres. When uterine contractions are not effective enough after childbirth, the blood vessels at the placental attachment site on the uterine wall may not close properly, leading to increased blood loss. For this reason, the midwife assesses the tone of the uterus postpartum. To strengthen contractions and stop bleeding, the midwife will give you a prophylactic oxytocin injection into the muscle or vein. After giving birth, there may be a little more blood for 3–4 days, menstrual-like discharge (or lochia) may occur for up to 8 weeks. Although a woman's body usually recovers well from blood loss, excessive blood loss affects energy levels, mood, the success of initiating breastfeeding and the amount of breast milk.

**Checking the woman's general condition.**

Before being sent to the postpartum ward, the midwife recommends that you go to the toilet, monitors how you are feeling, measures blood pressure, pulse and body temperature.

## First time breastfeeding

If the baby's condition is good, they will stay with you in skin-to-skin contact for up to two hours.

## PROCEDURES FOR THE NEWBORN

**Apgar score.** Within the first minute after birth, the baby is given an Apgar score, which is used worldwide. The one-minute-old baby's heart rate, breathing, skin colour, muscle tone and reflexes, i.e. response to stimuli, are assessed. Each indicator can receive 0 to 2 points. An Apgar score of 7–10 points indicates that the baby is in good condition, those with 5–6 points need attention and assistance. Newborns with a score of 4 or lower need help with breathing, longer monitoring, additional examinations and treatment. The same indicators are assessed at the fifth minute and, if necessary, at the tenth minute of life.

**Vitamin K.** Since the intestines of a newborn are sterile, there are not enough microbes to produce this vitamin and infants may develop a deficiency of clotting factors. This can lead to spontaneous bleeding in the intestines or brain. To prevent such serious complications, all newborns are injected with vitamin K within the first two hours with the consent of the parents. This is an important vitamin that prevents internal bleeding. The single injection is administered into the baby's thigh muscle.

**Weighing and measuring.** Newborns are usually weighed and measured when the family is about to leave the delivery room, approximately 1.5–2 hours after birth. The baby's weight, length, head circumference and chest circumference are measured. After weighing and measuring, the baby is dressed and you will be transferred to the postpartum ward.

Once the midwife has tidied up the birth canal, they will encourage you to breastfeed the baby. Typically, the baby will also be signalling this desire – most newborns want to eat 30–60 minutes after birth. Early breastfeeding is also very necessary for you, as it helps the uterus contract and reduces blood loss. While waiting for the right moment, be with the baby and keep them naked on your belly, because closeness promotes breastfeeding. The baby is much more active in your body warmth and proximity and your body responds to the baby's touch by producing breast milk.

A newborn's readiness to seek your breast is indicated when they open their eyes, try to look at you,

move and stretch their arms and legs, make grasping movements with their hands and reach towards your breast. These are signs of the rooting reflex. At the same time, the baby will start opening their mouth. Their tongue becomes visible and the baby licks and tries to suck anything that comes in front of them until they finally find the breast. Most newborns usually find the breast on their own, but of course, you can also help them.

The newborn may initially suck for only a few minutes, sometimes longer. Let them latch onto one nipple, and if they release it, try the other. Observe

## FIRST MILK, OR COLOSTRUM

There is no need to fear not having any milk. The quantity of breast milk significantly increases only on the 2nd-5th day after birth. However, every mother's breasts contain very beneficial colostrum when the baby is born. It looks different from breast milk: translucent, yellowish or bluish sticky liquid. Despite that, colostrum is very valuable and in the first few days, your baby will not need anything else. Colostrum protects the baby against potential pathogens they inevitably encounter after birth, activates the delicate and still developing digestive system of the newborn and acts as a laxative, bringing meconium out of the intestines and thereby protecting the baby from jaundice.

The amount of colostrum is small, but a newborn's stomach is also tiny and cannot hold more than one or two teaspoons of food. For a newborn, 2-12 grams of colostrum at a time is enough for the first few days. Offer the breast to your baby as often as possible during these days.



your baby. All babies are different from birth and have different feeding habits.

In the case of a C-section, the baby is placed on the breast as soon as possible, usually in the operating room. Afterwards, the father can provide closeness and skin-to-skin contact with the baby and then assist the mother in feeding the baby. Typically, the increase in milk quantity after a C-section takes a little longer than in natural childbirth. Be patient and ask a lactation consultant for advice if needed. Both skin-to-skin contact with the baby and frequent breastfeeding create favourable conditions for breast milk to reach the baby more quickly.

Use every moment while the baby is asleep to rest yourself.

## Postpartum ward

In the postpartum ward, you can stay in either a shared or a family room. There are 2–4 women in the shared room, but the family room is just for you,

### TIME OF LEARNING

The first days are a time of learning. You may have many questions about the baby's appearance and behaviour, your emotions can fluctuate and fatigue might overshadow joy – all of this is natural. You might be very tired but unable to sleep. You may be observing your baby constantly, feeling anxious about whether they are eating well and if everything is okay with them.

Get as much information as possible from the midwife. Use every moment while the baby is asleep to rest yourself. Take this skill from your time in the maternity hospital and follow the rhythm: when the baby sleeps, the mother sleeps. This way, you can spare your energy and maintain close contact with your baby.

your baby and your support person. Some maternity hospitals offer mother-baby rooms where you can be alone with your baby. If everything goes as planned,

you will spend 2-3 days in the postpartum ward. During this time, a midwife will

check on you and the baby every day, a paediatrician will examine the baby and if necessary, the midwife will consult with the obstetrician. In exceptional cases, if everything is well with you and the baby, you may be allowed to go home earlier.

The midwife will give you and your support person initial information on how to care for the baby's skin, folds, eyes, genitals and how to monitor the baby's weight gain.

**Baby procedures.** In the first days after birth, a paediatrician will examine your baby. They will listen to their heart and lungs, check the body, fontanelles, eyes, ears, roof of the mouth, anus, as well as the clavicles and mobility of the hip joints. The doctor will assess the baby's appearance, behaviour, skin colour, activity and congenital reflexes.

With your consent, a tuberculosis vaccine is administered to the baby at 24 hours old and before discharge, a "four-spot" sample is taken from their heel to screen for metabolic diseases.

All newborns also undergo a hearing screening in the maternity hospital. Sometimes, the initial hearing screening may not show everything is normal and it may need to be repeated after some time. There is no need to worry, as the baby's ear canals are narrow and there may be vernix in them.

## Your newborn

**Head shape.** The newborn's head is slightly stretched at the nape of the neck and more cone-shaped than round. Some areas may be bluish or protruding. This is common for babies born head-first. The skull bones of a newborn are softer than those of an adult and have not yet fully grown together at birth. This allows them to adjust slightly during birth to better fit through the narrow birth canal.

**Eyelids** may be swollen and there might be small bruises on the whites of the eyes. These have occurred when passing through the birth canal and disappear on their own – the swelling goes down within a few days and bruises within a few weeks.

**Fontanelles.** The baby's head has two fontanelles. The larger one can be felt at the junction of the frontal and parietal bones – this is the soft spot, so-called anterior fontanelle, which pulsates in the same rhythm as the heart and allows for the head to grow during the first year. Depending on its size, it usually closes by 1-1.5 years.

**Bluish skin.** If on the first day the baby's hands and feet are blue because they are conserving heat, after a few days it is usually not due to the cold, but due to the adaptation of the blood circulation. Because there are many red blood cells, the blood is quite thick and reaches distant body parts more slowly. A newborn's face may also be slightly bluish and swollen. Sometimes the face and neck have tiny dark red

dot bruises, especially if the umbilical cord was wrapped around the baby's neck at birth. They will disappear on their own over time.

**Stork bite.** Small bluish-red spots, known as stork bites, are often found on the baby's nose, eyelids and nape. These may disappear on their own within a few months, but they can still be visible for years, especially when the baby cries.

**Body temperature.** Newborns have thicker blood than adults and therefore their hands and feet are cold. If you are concerned about your baby being cold, check the back of their neck before deciding to add more clothes. Babies are quite sensitive to temperature. Since they are not able to regulate their body temperature yet, make sure to dress them appropriately to avoid both hypothermia and overheating. Use multiple blankets when sleeping, as this allows you to add or remove layers without waking the baby.

**White spots,** which especially appear on the nose and forehead, are undeveloped sebaceous glands adjusting to their new environment. Do not squeeze them, as like many newborn characteristics, they will soon disappear by themselves.

**Nasal congestion.** Newborns often sneeze without having a cold. They come into this world from amniotic fluid and their mucous membrane has been in a moist environment for nine months. After birth, the nasal mucosa can become very dry until the baby adapts to the new envi-

Clean, normal and healthy skin does not require oiling or creaming.



ronment. The baby may also sneeze in response to new smells that they are not used to yet. Due to the swelling of the mucous membranes of the nose, the baby might breathe in a wheezing sound, but this is also an adaptive reaction. To alleviate this, you can humidify the baby's room with a special electric air humidifier or place damp, clean clothes on the radiator. It can also help if you use a few drops of saline solution in the baby's nose several times a day.

**The skin** is the newborn's largest organ. Babies who have close physical contact with their mother develop faster both physically and emotionally. A newborn's skin is about five times thinner than that of an adult, making it more permeable to external irritants. The white, soft vernix is the best natural defense against chafing and is absorbed within a few days. The earlier the baby is born, the more vernix they have in the skin folds; overdue babies might not have any. Clean, normal and healthy skin

does not require oiling or creaming. However, if the skin on the hands and feet is dry and flaky with visible cracks, you could apply a water-based baby cream.

The baby's skin might have fine, downy hairs. These fine hairs are a reminder of the foetal stage and will soon fall out on their own. Vigorous sucking can sometimes lead to blisters on the lips. On the second or third day of life, small red spots and pimples might appear on the skin. These are part of the adaptation process and will disappear without treatment within a few days.

## GIVE YOURSELF TIME TO ADJUST

Your emotions immediately after childbirth can be overwhelming and powerful, but they may also be completely different than expected. You may feel content and happy, but you may also feel completely numb and empty instead of strong feelings of happiness and love. You might be happy and relieved that the delivery is over, but you may be so tired that you do not even want the baby on your breast. The baby may seem like a stranger and you might not feel the immense love that people talk about. You might feel disappointed that the childbirth did not go as planned. All these feelings are normal because you have gone through a significant ordeal. Give yourself time to adjust. Spend a lot of skin-to-skin time with your baby and take time to get to know them. Commend yourself and be gentle with yourself. If necessary, talk about your feelings with your partner and loved ones, you can also get help from a pregnancy crisis counsellor.



**Skin jaundice.** From the 2nd-4th day of life, the skin becomes paler and more yellowish. The yellowish complexion is caused by bilirubin, which is produced during the active breakdown of red blood cells. The liver helps eliminate bilirubin from the body. However, since the liver does not work sufficiently yet, bilirubin accumulates in the tissues, causing a yellowish complexion. Sometimes, too much bilirubin accumulates and then it is necessary to help the baby a little. Phototherapy and other medications are used to help reduce the level of bilirubin in the body.

**Physiological weight loss.** Newborns lose weight in the first few days of life. This weight loss occurs because the baby's body contains a lot of water, which is eliminated through breathing and the skin after birth. Up to 5% weight loss on the first day is considered normal. If 48 hours have passed since the baby's birth and their weight loss is greater than 8%, consult with the midwife. Review the frequency of feeding and the amounts of breast milk the baby receives. Offer the breast consistently when the baby demands it! In most cases, weight starts gradually increasing from the 3rd-4th day, reaching birth weight again within two weeks.

**Peeing and pooing.** In the first days, the baby usually doesn't pee or poo much. The baby should pee for the first time on the first day after delivery. The amount of urine starts to increase when the mother's milk supply increases and the baby starts to eat more. The first poo, or meconium, is formed during foetal development and is excreted in the first 48 hours. It is blackish, odourless and does not contain any bacteria. When the baby starts breastfeeding, the stool turns yellowish.

You likely felt **hiccups** already during pregnancy. Now, hold the hiccuping baby in an upright position against you or offer them your breast. If it does not help, simply wait, as the hiccups will stop on their own.

**Discharge.** In the first days after birth, girls may have whitish mucus discharge from their vagina, sometimes with a little blood. Boys' scrotums may be swollen and contain more fluid than usual. This is related to hormones transferred from the mother through the placenta and does not require treatment. For the same reason, the mammary glands of both newborn boys and girls may swell and a little whitish fluid may also be secreted. All this is normal and will subside over time.

## TAKE CARE OF THE BABY'S BELLY BUTTON

The remnants of the umbilical cord will soon dry out and darken. The umbilical cord will fall off on its own, usually within 7–14 days. It is good to clean the navel with boiled and cooled water a few times a day. You can also do it after bathing. It is important to clean the edges of the umbilical cord, i.e. the area between the skin and the umbilical cord. Keep the belly button area clean and dry and leave the belly button out of the diaper as it heals better with air. A little discharge may ooze from the base of the navel for some time after the stump falls off, this is normal. Make sure that the skin around the navel does not redden, as this may be a sign of an emerging infection.



## Life after childbirth

**Postpartum appointments with a midwife.** Regardless of where you received your first postpartum consultation, your prenatal midwife will be expecting you for a visit 6-8 weeks after giving birth.

By this time, your body has overcome some postpartum changes, although complete recovery will take place over a period of 1.5 years. The midwife knows the story of your pregnancy, you know each other and therefore you can best assess how well your body has returned to its previous state. Share your birth story with them. During this visit, the midwife also checks the healing of any perineal tears and, if necessary, takes samples. You can discuss planning for the next pregnancy and sexual matters during the postpartum period, as well as address your overall physical and emotional well-being. If you have topics that you would like to discuss in the

future, the midwife will invite you to a new visit or refer you to an appointment with the necessary specialist.

### Changes in your body

**Uterus.** The uterus returns to its pre-pregnancy state within 4-8 weeks. Recovery takes place with the help of uterine muscle contractions, which are promoted by breastfeeding, physical activity and regular urination. Postpartum pains resulting from uterine contractions are called afterpains and are more commonly felt by those who have given birth multiple times. The recovery of the uterus can be judged by the height of the uterine fundus, therefore the midwife will feel your abdomen during the postpartum visit. Around 9-10 days after

childbirth, the uterus is no longer palpable under your fingers.

Uterine involution is accompanied by discharge. In the first week, it is bloody, turning reddish-brown in the second week, until becoming whitish within 6-8 weeks. If the amount of discharge suddenly changes, there is blood in it again, an unpleasant odour or persistent abdominal pain, consult your midwife or obstetrician.

**After childbirth,** the cervix is loose and folded, and the cervical canal is open. Due to uterine contractions, the cervix contracts, and 10-12 hours after childbirth, the internal opening of the cervix is about two to three fingers wide. Complete closure takes several weeks, so you should be cautious to prevent potential vaginal infections from causing trouble

in the uterus. This is why it is not recommended to take baths, use tampons or have unprotected sex without a condom in the first postpartum weeks.

**The ovaries** are in a dormant state after childbirth, just like during pregnancy. If you are not breastfeeding, your first menstruation will start approximately 6-9 weeks after childbirth. It is possible to get pregnant even before the start of your first menstruation.

## FIRST HEALTH CHECKS

On the day you are discharged from the hospital, the midwife examines both you and the baby. If you have any questions, it is good to discuss them at this meeting before you go home. Be sure to discuss where you will take the baby for the first-week visit.

**First-week visit.** In the case of early discharge or health problems of the baby, you will be called for the baby's first-week visit to the maternity ward. In other cases, you can have the first-week visit with a midwife, family doctor or nurse on the baby's 5th-7th day of life. In some places, a midwife conducts the first-week visit at your home. The main topics for the first-week meeting include breastfeeding, bathing, baby care, sleep and how the mother is feeling and adapting. Several questions may arise at home in the first couple of days and it is good to get expert answers quickly.

**Baby's health checks.** Regardless of where the baby's first-week visit takes place, when you get home from the maternity hospital, let your family doctor know that a new person has been born. Agree on when to take the baby to the family doctor for the first time. Usually, the doctor wants to see the baby at 1 month of age and every month thereafter to monitor their development.



**The vagina** shrinks and shortens and swelling and hyperemia disappear. With each subsequent childbirth, the vagina becomes wider and its walls smoother.

**Skin.** Pregnancy pigment spots gradually fade from the skin and the nipples and the white line on the abdomen become lighter. Stretch marks do not disappear completely after childbirth. They do lose their bluish-red color and turn whitish, but they are still visible to some extent. The skin of the abdomen may be a little wrinkled, but the wrinkles will disappear little by little as a result of the contractions of the abdominal muscles and the skin will soon look like it did before pregnancy.

**Posture.** The growth of the breasts and abdomen during pregnancy causes the body's center of gravity to shift backwards. To maintain balance, the lumbar region bent forward, creating lumbar lordosis or "sway-back". For the same reason, you develop tension in the shoulder girdle and your muscles tire quickly. This excessive lordosis persists for about two months after childbirth.

## Deviations

**Perineal tear.** Perineal tears need rest and time to heal. In the case of a minor tear, you can carefully sit up as early as the next day, preferably on a hard surface. Practice this method of getting out of bed slowly: first turn on your side, slowly stretch your legs toward the floor and use your hands to sit up. Keep the wound clean and dry and make sure there is good air circulation. The wound usually needs about 4 weeks to heal. Put off having sex until then.

If the baby was born by C-section, take care of that wound as well. Keep the wound clean and dry

and avoid exertion. You can lift weights up to 5 kilograms for the next 2-3 months.

**Urinary incontinence.** On the first day after giving birth, you may not feel the urge to urinate. Since the abdominal walls are loose, the bladder has room to overfill and at the same time the reflex mechanism for emptying the bladder is disturbed. Use the toilet even if you do not feel the urge to pee. Take care to empty your bladder in the following days as well, until the body's mechanisms recover. Pelvic floor muscle exercises can be helpful. For more detailed advice, consult a physiotherapist.

**Constipation.** It is common to not have a bowel movement for a couple of days after giving birth. If this has lasted for three days, you can use a mild laxative. Avoid constipation if you have a perineal tear, as straining prevents it from healing.

**Diastasis.** The abdominal muscles recover on their own within 2-3 months after childbirth. Recovery is faster for women who were physically active before and during pregnancy. One factor slowing recovery may be diastasis, the separation of the rectus abdominis muscles. This phenomenon occurs when the white line of connective tissue between the rectus abdominis muscles widens and muscle bundles separate due to stretching. You may have noticed at the end pregnancy that when standing up from a lying position, a strong muscle bulge appeared above the navel. Many women experience this. Avoid activities that require straining the abdominal muscles after childbirth. A new mother does not need to lift weights heavier than her baby.

Diastasis is not dangerous but requires advice from a specialist. If you feel that your abdomen is different three months after childbirth, discuss it with your midwife or family doctor.

Complete recovery of a woman's body takes place over a period of 1.5 years.

## Changes in your emotions

**Maternal depression.** After the placenta is delivered, the levels of the hormones progesterone and oestrogen produced by the placenta begin to decrease in the body. Instead, the level of prolactin, the hormone responsible for breast milk production, produced by the pituitary gland, increases. This rapid change in hormone levels can cause mood swings – known as maternal depression (baby blues).

Do not worry, this occurs very frequently and is a normal condition that affects about 50-80% of new mothers. It occurs around the 3rd or 4th day after childbirth and should subside within a couple of weeks. There is no single cause for maternal depression, it is rather a combination of factors and

significant changes your body, mind and soul have gone through in the last 9–10 months. Seek help from your loved ones, be gentle with yourself and allow yourself time to adjust.



### SYMPTOMS OF MATERNAL DEPRESSION

You might experience one or all of the following. All mothers are different and all of these feelings are normal.

- You feel sad and cry. You may cry for no reason, or you may cry over a completely trivial matter.
- You are generally moody and easily irritable. Irritation can occur for no particular reason, or it can be triggered by a small or insignificant issue.
- Feeling overwhelmed. Trying to take care of your baby, yourself and your home can be very exhausting and requires adaptation.
- Feeling trapped. Because newborns require 24/7 care, you may feel like you are imprisoned in your own home or have no personal space, especially if the baby needs a lot of your closeness and frequent breastfeeding.
- You feel vulnerable, frightened and/or paranoid. Since the newborn is delicate and sensitive, you might worry excessively about the baby's safety. This can become compulsive. For example, you may check very often if the baby is still breathing; you may worry a lot about their life and health; you may fear that you might accidentally drop the baby; you may worry about the amount of breast milk and feeding; you may analyse everything related to the baby and not allow others to care for them.
- Sleep problems. Despite intermittent sleep and exhaustion, you cannot sleep even when you have the opportunity. Some mothers struggle with sleep because they are worried about the baby.

**Postpartum depression.** If your mood changes last longer, it might be postpartum depression. Its signs include excessive sensitivity, irritability, anxiety, feelings of sadness, crying, anguish, headaches and sleep and eating disorders. Some women experience a general decline in well-being without a clear explanation.

Postpartum depression is an illness that can affect all mothers, regardless of age, income or education level. Similar to depression, it might be challenging to recognize initially, hence reaching treatment may take time. There is no single cause for postpartum depression – research shows that it is a combination of genetic and environmental factors. Stress from everyday life, past traumas, physical and emotional strain during pregnancy and caring for the baby, significant hor-

It is good if you have someone close to you whom you can freely talk to about your feelings.

- Difficulty concentrating. You cannot recall what was needed from the store or where you placed something.
- Extreme weight changes. Changes in appetite due to excessive worrying and rapid weight loss can lead to nutrient deficiencies, which in turn can cause mood swings. If you are not eating enough, your body will not get adequate nutrients and breastfeeding is also disturbed.
- Experiencing anxiety and panic attacks. You might feel hot, sweat excessively, feel dizzy, nauseous and unable to breathe.

If these feelings bother you a lot or do not go away within the first two weeks, contact your midwife or a pregnancy crisis counsellor.

monal changes during pregnancy and after childbirth contribute to the development of postpartum depression.

Women with a personal or family history of mental health issues or those who have experienced postpartum depression in a previous pregnancy have a higher risk of developing it. The symptoms of postpartum depression are similar to those of maternal depression, but are stronger, worsen over time and last longer than a few weeks. This may make it difficult for the mother to care adequately for her baby, which can impact attachment formation and thereby the baby's well-being.

Approximately 7–20% of women experience postpartum depression, but only about a quarter of them receive diagnosis and help. Postpartum depression can manifest within 1–3 months according to various sources and occurs within a year after childbirth. If the mother experienced mood swings and/or depression during pregnancy, postpartum depression may occur earlier. Without treatment, it can persist for years.

You can do quite a lot for your mental health. Physical activity, having good support in caring for the baby and getting opportunities to rest can improve your mood. It is good if you have someone close to you whom you can freely talk to about your feelings. You could also consult with a family doctor or psychologist.



## Relationship and the father's role

During pregnancy, both the mother and the father begin to adapt to a new kind of life and new challenges. This intensifies now that the baby is born. Changes are both social and emotional and there is a lot to learn. Your main task is to focus on your body's recovery, gather inner strength and care for your baby. You do not have to stay in bed, but allow yourself quiet activities, walks with the baby and the skill to rest while the baby sleeps.

The father has an important role at this delicate time – to create an environment at home where you can quietly recover and be with the baby. It is also important for the new father to spend time with the baby to develop their bond. It is also good for the new father to be in skin-to-skin contact with the baby.

Besides caring for the baby, the man can support you by managing household tasks. It is good if you have already discussed who can do what in the household and how you will divide the roles in caring for the child before the child is born. However, not everything can be planned in advance and many activities will fall into place over time. You should also remember that the father goes to work during the day and is also tired in the evening. If you can calmly talk to each other about your feelings and concerns before tensions rise, your home life will also begin to run smoothly during this time of change.

You can also seek help from close relatives, so you have even more opportunities to focus on yourself and the baby. Although the initial focus is mainly



on the baby, do not forget about your relationship. If you can calmly recover and know how to accept support from your loved ones, it is possible that you might be able to invite your grandparents or a friend to babysit and go out together for a few hours already 1.5–2 months after the birth of the baby.

## Preventing a new pregnancy

There is a common belief that breastfeeding prevents pregnancy during the baby's first year of life. While breastfeeding does provide some protection, it is only partial and primarily during the baby's early months. Even then, it is only effective if breastfeeding is regular, at least eight times a day, you breast-feed at night as well and there is sufficient stimulation of the nipple (i.e. the baby does not receive breast milk from a bottle or pacifier in addition to the breast).

Persistently high levels of prolactin, the hormone responsible for milk production, suppresses the body's levels of hormones responsible for the maturation and release of the egg. However, this does not provide full protection, so discuss your plans regard-

Your main task is to focus on your body's recovery, gather inner strength and care for your baby.

## QUIET RECOVERY TIME

The time to resume sexual activity after childbirth is very individual. It depends on how your birth canal is healing, your overall well-being, fatigue level and whether you feel emotionally ready for sex. Generally, it is not recommended to start having sex before the postpartum discharge has stopped, which typically lasts about 6–8 weeks. If you want to have intercourse earlier, a condom should be used to prevent infection.

ing having another child with your partner before resuming sexual activity.

Consider the advantages and acceptability of different contraceptive methods for both of you. Note that the first postpartum ovulation occurs two weeks before menstruation, so the absence of menstruation is not a reliable indicator that you cannot conceive. During the postpartum check-up, you can consult with a midwife to find a contraceptive method that suits you.

**Condom.** A condom is the best contraceptive option, but as with all other means, you need to be consistent in using it.

**Intrauterine device (IUD)** is a T-shaped device inserted into the uterus to prevent pregnancy. IUDs can contain metal or the hormone progesterone. This method is suitable for use after childbirth, as it is effective and long-lasting. The IUD can be inserted from 4–6 weeks after

delivery. It is not suitable for women prone to infections, those with a history of heavy menstrual bleeding or abnormal Pap smears.

**Birth control pills and implants** are hormonal methods that are highly effective and suitable for use after childbirth. The first choice is progesterone-only mini-pills, which are safe during breastfeeding.

There is also a long-acting subcutaneous implant with the same ingredient. Recent studies allow for the use of combined pills, patches or vaginal rings during this period.

Before starting hormonal contraceptives, a thorough consultation with a midwife or gynaecologist is necessary.





# Breastfeeding

Breastfeeding positions

Proper latching technique

How often should you offer your  
breast to the baby?

Expressing breast milk by hand

When things don't go well

Donor milk

Menu for breastfeeding mothers

# Breast milk wisdom

Breastfeeding supports a baby's development, growth and health in many ways. Breast milk is easily digestible and contains essential nutrients for the baby's growth: proteins, fats, carbohydrates, vitamins and minerals. These nutrients are in the correct proportions in breast milk, thus covering the baby's nutritional needs until six months of age. A child does not get enough vitamin D from breast milk alone and it must be given additionally to babies every day from the 2nd week of life until they are two years old. A suitable amount is 400 units (IU) once a day.

Breast milk acts as a natural vaccine since it contains specific antibodies and growth factors your baby needs. Suckling is necessary for the baby's jaws and oral muscles and supports the formation of dental alignment. Breast milk is always at the right temperature and clean. Breastfeeding is convenient for the mother, requires no additional equipment and the baby can be breastfed almost anywhere.

### **Breastfeeding is also good for the mother.**

Breastfeeding promotes faster contracting of the uterus and your postpartum recovery. If breastfeeding goes well, the extra weight gained during pregnancy also decreases faster, because the body spends more than 500 kcal per day to produce breast milk. Mothers who breastfeed have a lower risk of breast

and ovarian cancer at a young age and a decreased risk of osteoporosis later in life.

Breastfeeding creates a special bond between the mother and the child and is the baby's first relationship experience. Like with all relationships, every breastfeeding relationship is unique. Some mothers and babies do great from the start, but some may struggle with it in the first few weeks or later. There are solutions to every challenge. In case of problems you can get support and advice from midwives and lactation consultants.

The World Health Organization recommends exclusive breastfeeding for the first six months. After six months, introducing complementary foods is advised while continuing breastfeeding until the child is two years old or longer, if suitable for both the mother and the child.

Breastfeeding creates a special bond between the mother and the child and is the baby's first relationship experience.

**Milk production.** The mammary glands develop and mature during pregnancy and colostrum is produced in the breasts as early as 16–20 weeks into pregnancy. After childbirth, the amount of breast milk significantly increases in the breasts between the 2nd–5th day. This occurs because the closeness of the child and breastfeeding trigger strong sensations in your body, leading to the release of the hormones oxytocin and prolactin. These two hormones regulate the success of breast-

feeding, the quantity of milk and its release from the breast.

Prolactin is responsible for the quantity of milk produced and is mainly released at night. The more frequently the baby suckles, the more milk is produced.

You can contribute to the production of prolactin by

- breastfeeding as often as the baby desires, at least every 3 hours and at least 8 times a day,
- allowing the baby to suckle for as long as they want,
- breastfeeding at night,
- getting enough sleep, including during the day with the baby,
- spending a lot of time with the baby – touching, stroking and caressing them.

Oxytocin is responsible for the ejection of milk from the breast. For instance, when you hear the baby cry and milk starts to flow from the breast, this happens due to the effect of oxytocin. You can contribute to the release of this hormone by

- relaxing when starting breastfeeding,
- avoiding tension and stress while breastfeeding,
- thinking happy thoughts about your baby and their breastfeeding,
- adopting a comfortable position,
- drinking a warm beverage if necessary.

Stress hormones are the competitors of oxytocin. For example, in case of pain, worry or stress, milk may not flow from the breast.

**Breast milk serves as both food and drink for the baby.** The composition of breast milk varies during one meal, over a 24-hour period, in summer and winter and changes as the child grows. For instance, at night, the milk is thicker and richer in energy, allowing for longer gaps between feedings. In the beginning, breast milk is more watery, also known as foremilk, satisfying the baby's initial thirst. During this time, the baby suckles with great appetite. Once the foremilk has been consumed, suckling becomes slower and the milk becomes thicker and more concentrated in fats and other nutrients. This is known as hindmilk. It is essential that the baby empties one breast before moving to the other. In the first weeks, always offer both breasts, as if the second breast is like dessert. This method stimulates both breasts, ensuring sufficient increase in milk supply.

## HOW CAN YOU UNDERSTAND WHEN THE BABY WANTS TO EAT?

In the first weeks of life, a newborn communicates the desire to eat in the following ways:

- opens their eyes and tries to look at you,
- moves and stretches their arms and legs,
- opens and moves their mouth and tongue,
- tries to grab everything in front of them with their mouth.

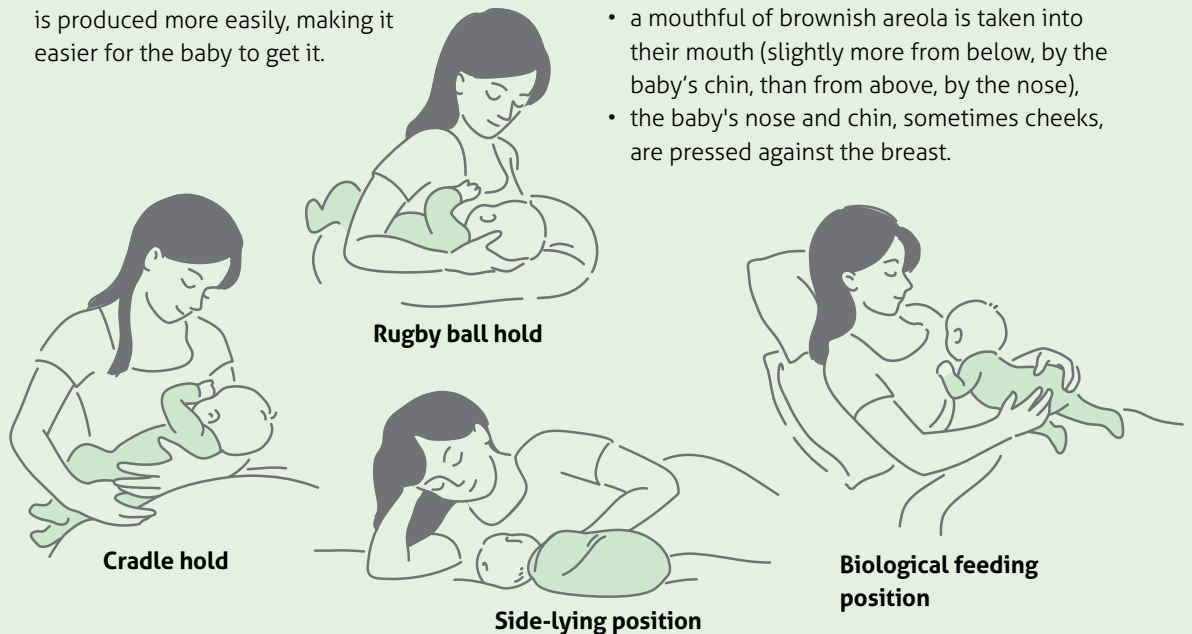


## THE ABCS OF BREASTFEEDING

**Breastfeeding positions.** When starting breastfeeding, choose a comfortable position either sitting or lying down. If lying on your side, simply support your head with a pillow, relax and turn the baby towards you. If you prefer to breastfeed while lying on your back, elevate the head slightly or use pillows behind your back to achieve a comfortable semi-reclined position. Then, lay the baby on their stomach on top of you and support them from the side with your forearm. Place pillows under your forearm and elbow to relax your arm.

If you want and are able to sit, find a comfortable position where your back is straight and supported. It is easier if you have pillows within reach that you can use to support yourself or the baby for better relaxation. It is easier for you to support the baby if you put pillows or a folded blanket under them on your lap, keeping the baby at the right height for the breast.

A comfortable position helps the body relax. When you are relaxed and calm, milk is produced more easily, making it easier for the baby to get it.



**Placing the baby on the chest.** When in a comfortable position, bring the baby close to you, belly to belly. It is more comfortable for both of you if there are no edges of blankets or pillows, loose dressing gown or empty space between you. Gently turn the baby so that their whole body and face are facing the breast.

Set the baby closer to the breast so their nose gently touches the nipple. The baby senses the touch of the breast, opens their mouth, slightly tilts their head back and starts searching. Give them time to open their mouth properly and slowly bring them closer so that the breast enters the baby's open mouth. Support the baby with your forearm from behind their neck, upper back and under their back and bottom.

**Proper latch.** The baby gets milk effectively when their latch technique is correct. The baby is correctly latched if:

- their mouth is wide open,
- the bottom lip is turned outwards (twice),
- a mouthful of brownish areola is taken into their mouth (slightly more from below, by the baby's chin, than from above, by the nose),
- the baby's nose and chin, sometimes cheeks, are pressed against the breast.



### Proper latching technique

### Wrong latch

Monitor how you feel while breastfeeding. Pain or strong discomfort indicates an incorrect latch from the baby and is a signal to carefully stop breastfeeding. To do this, confidently place your pinkie finger into the baby's mouth to release the vacuum, slowly free the nipple and then offer it to the baby again.

With the correct latch, the baby swallows less air while nursing. If the latch is not right, you might hear audible swallowing while the baby is eating and due to gas bubbles, the baby might start crying soon after eating. In such cases, reevaluate the latch – the baby's head should not be turned in relation to the body, their cheeks should not hollow during nursing, their lips should be turned outwards and there should be no loud swallowing noise.

If the latch is correct but the baby still swallows some air, hold the baby upright with their stomach against your chest after each feeding. You can gently pat their back or walk around to help release accidentally swallowed air. Sometimes it is necessary to try different positions to find the one that helps your baby release the burp.

## HOW TO BREASTFEED TWINS

Twins can be breastfed both simultaneously and individually. Nursing both babies together can help conserve a mother's energy. As twins are often slightly premature, which adds even more special features to their feeding, at the beginning twins might nurse for so long that it seems like the mother is doing nothing but breastfeeding all day.

In a tandem nursing position, each twin has their own breast. Get into a comfortable position on a couch or armchair with a straight back to avoid fatigue. Arrange pillows or rolled-up blankets for each baby or use a special twin nursing pillow. Lift one baby to your breast – as with nursing a single baby, ensure they are snugly against your side or belly and you can support their back and guide them towards the breast so they have the chance to grab the nipple with their mouth. Once one baby is nursing, lift the other onto a separate pillow and turn them towards the breast so they can latch onto the nipple. This way, each baby has their own pillow and breast. Just as with nursing a single baby, it is also necessary to support the babies' backs.

Nursing two babies simultaneously requires practice and you will need help at first. It would be good to have someone close by who can first help lift the babies for feeding and, at the end of the feeding session, take care of one twin for a while.



## How long to breastfeed at a time?

If the baby is latched correctly, they can suckle for as long as they desire. Initially, a newborn may take quite some time to learn how to eat: 20-30 minutes is quite average, although some babies eat faster while others take much longer. While eating, the baby takes occasional pauses without releasing the breast and then continues sucking. Most babies release the breast themselves and turn their head away when they finish eating. If the baby is a very slow eater, you can encourage them by gently massaging their palms and the soles of their feet while they're on the breast.

As the baby grows, they might want less time to eat. Initially, offer both breasts at each feeding to stimulate milk production. Later on, you can alternatively offer either breast. Some babies will continue to prefer feeding from both breasts during one feeding – this develops over time and according to what works best for both of you. Pay attention to the baby's cues.

If it works for you, breastfeed your baby as often as they desire.

## How often to breastfeed?

Feed your baby according to their wishes. There should be at least eight breastfeeding sessions a day, but for a newborn, 8-16 times a day is also normal. The younger the baby, the more frequently they feed. Their digestive system is still adjusting to the gradually increasing milk quantities. Intervals between feedings can range from 1.5 to 3 hours. As the child develops, feedings become more regular and often shorter.

More important than counting times is ensuring that the baby is full. Signs of fullness include weight gain, alertness, peeing at least six times a day and pooing regularly. Until the end of the first month, there should be at least one yellow poo a day, but

often there are multiple a day. As the baby grows, they poo less frequently, every other day or even a couple of times a week. Birth weight is usually regained by around days 10-14.

Most babies tend to gain weight more rapidly from the second month onwards, but there is no need to fear overfeeding from the breast. The baby regulates their food intake according to their needs. The average weight gain of a full-term baby in the first six months of life is 600-800 grams per month, even 1000 grams or more per month if they are exclusively breastfed. Weight gain decreases towards the end of the first year.

Some babies want to nurse frequently, but it may not always be due to hunger. There is a distinction between nutritive and non-nutritive sucking. The latter is for comfort. If it works for you, breastfeed your baby as often as they desire. If it becomes tiring, consider using a baby carrier: this way, the baby can be close to you, but your hands will be free. This is especially useful if there is also a small child in the family.

## Breastfeeding a premature baby

If a baby is extremely premature, born between the 22nd and 32nd week of pregnancy, their postpartum feeding differs significantly from feeding a more mature newborn. Therefore, the mother and baby will stay in the hospital for some time. The child's new extrauterine environment, illnesses, weight loss, the body's very limited nutrient reserves and the inability to cope with eating on their own can cause the child to have hidden hunger and subsequent growth delays, which in turn can affect the baby's future development. To prevent this, very premature babies are fed intravenously in the first weeks to ensure they receive necessary nutrients and micronutrients. Besides this, early oral feeding is also extremely important.



Most premature babies, about 80%, are born between the 32nd and 36th week of pregnancy. They may also be solely on oral feeding or may need intravenous feeding for a short period.

Breast milk is crucial for premature babies. If the baby needs special care and cannot breastfeed, ask a midwife to teach you how to express breast milk, so you can take it with you every time you visit your baby.

At first, breast milk might be given through a stomach tube and the amounts are very small. If the baby is allowed to nurse, always offer the breast, even if they are tiny. Suckling might be a big challenge for them at first, but it is worth trying. Regular skin-to-skin contact and mother's breast milk are very important for premature babies. If the baby cannot yet breastfeed, you can express and pump it. This will help maintain and create an adequate milk supply until the baby is ready to breastfeed. If the mother's milk supply is insufficient, the baby is given extra;

usually donor milk is preferred. In Estonia, this option is available at East Tallinn Central Hospital and Tartu University Hospital.

Upon discharge from the hospital, you will receive instructions on how to feed your baby. If necessary, the doctor might recommend adding breast milk fortifier to the breast milk, which can be obtained from a pharmacy with a prescription. If there is no breast milk, the baby has to be fed with formula, which the doctor or nurse will help choose. Feeding a premature baby may raise more questions than feeding a full-term baby, so stay in touch with your midwife, the nurses who supported you in the hospital and the doctor who treated the baby in the hospital, and follow their advice.

## DONORMILK AND BREAST MILK BANK

Donor milk is the best alternative when a mother's milk is unavailable or in limited supply. It is intended for newborns who, for various reasons, cannot receive breast milk from their own mother yet: deeply premature babies, critically ill infants born at term and babies born too small for their gestational age.

All healthy lactating women with infants younger than six months can be breast milk donors. Donating breast milk is voluntary and unpaid. To prevent infection risks, donor candidates undergo necessary hospital tests. 50% of donors are mothers of premature babies. The collection and storage of donor milk is managed by a milk bank. The implementation of donor milk has significantly reduced intestinal problems in premature babies, the child starts to eat more quickly, leaves the incubator sooner and latches onto the mother's breast. Thanks to breast milk donation, the aggressiveness of intensive care for premature babies has significantly decreased.



## When things don't go well

As with most things in life, breastfeeding comes with its own challenges. In the maternity ward, help is available because there are midwives, nurses and doctors who can answer all your questions. However, breastfeeding cannot be mastered in the first days – every baby is unique, a newborn develops rapidly and what worked yesterday might not fit today. There is no one-size-fits-all recipe for breastfeeding – it is more about building a relationship between the mother and the baby that develops day by day.

That is why the first advice is that if you feel at home that breastfeeding is not going well and tensions are rising, take some time off, snuggle with the baby in bed and keep them in skin-to-skin contact. Make sure that everything you need is within reach: a cloth to wipe the baby's mouth, pillows and blankets and a water bottle for yourself. Drink plenty of

water because breastfeeding dehydrates the body and causes dryness in the mouth. Let other family members handle cooking while you and the baby learn the wisdom of breastfeeding together. Do not limit the time spent on suckling. Offer the breast to the baby whenever they indicate the need. Breast milk is easily digestible, so it is not a burden on the body if the baby suckles almost all day with taking only small breaks – as some newborns tend to do.

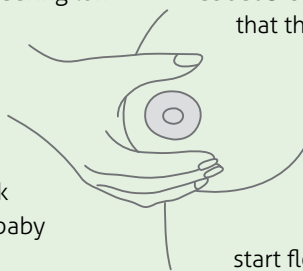
Remind yourself that everything passes. The sensitive nipples and your concerns about whether the baby is eating too little or too often will pass. At some point – usually around six weeks – you and the baby will establish your own rhythm and the right amount of breast milk. By then, your strength will also be restored.

**Painful nipples.** There are mothers whose babies suck eagerly and the latch is correct, but still the nip-

## EXPRESSING BREAST MILK BY HAND

Manually expressing breast milk is an important skill when the baby cannot latch or to reduce issues related to engorgement, for example. It offers control over breast health and helps resolve breastfeeding-related problems.

It is a convenient solution during the first days when colostrum is released in drops, when you need to stimulate the breast or to breastfeed a baby who does not latch well. Even during longer separations, a mother's breasts require emptying. This should be done according to how you feel and at least as often as the baby would feed, ideally around eight times a day. This helps maintain milk supply and you can breastfeed the baby again as soon as possible.



To express milk from the breast, wash your hands thoroughly and choose a clean container to collect the milk. Get into a comfortable position. It is recommended to drink a warm beverage before expressing, apply warmth to the breast, gently massage the breast and stroke the breast towards the nipple.

To express, place your thumb and forefinger about 3 centimetres away from the nipple, so that the hand forms a letter C shape and the nipple is in the middle of a straight line between the fingers. Press the breast towards the chest wall rhythmically in the direction of the nipple several times. It may take a few minutes for milk to start flowing. Collect the milk droplets in a

ples become sensitive. Painfulness can occur especially at the beginning of breastfeeding, but once the milk starts flowing, the discomfort usually subsides. It is good to know that this passes with time. To alleviate sensitivity, it can be helpful to apply breast milk to the nipples after breastfeeding. Air baths after breastfeeding also have a soothing effect.

Severe pain is a sign of an incorrect latch or position. The cause of pain can also be cracked nipples, mastitis, thrush, milk blister, anatomical peculiarities in the baby's mouth or hormonal changes in the mother. You do not have to endure pain that causes you to suffer through gritted teeth. If that is the case, be sure to seek help from a lactation consultant.

**Flat nipples.** Sometimes mothers worry about whether their babies can get milk if their nipples are flat. It is good to know

Do not limit the time spent on suckling. Offer the breast to the baby whenever they indicate the need.

cup. After a while, change the position of your fingers on the breast so that the other milk ducts are also emptied. Express milk from the other breast as well.

Store expressed breast milk in a sealed container and label it with the date and time of expression.

- At room temperature up to +26 °C, breast milk stays good for 6–8 hours.
- In the refrigerator at +4 °C, breast milk can last up to 72 hours.
- In the freezer at –18 °C, breast milk can last for at least 3 months.

Freshly expressed body-warm milk should not be directly mixed with milk taken from the refrigerator or freezer, it must be cooled in a separate container first.

that babies are capable – they can latch even onto the skin of your hand. Therefore, getting into the right breastfeeding rhythm is not related to the shape of your nipples. The initial bumps are a natural process that many need support and time to get used to. The baby sucks milk from the breast and the nipple serves as a guide to locate the breast and facilitates grabbing onto it. Babies can latch onto breasts with nipples of any shape, the question lies only in the ease of grasping the breast.

It helps to give the baby time to get acquainted with the breasts. Whenever possible, have skin-to-skin contact, lounge naked in a warm room and allow the baby to latch onto the breast whenever they want. Some babies learn best on their own. Make sure the baby latches onto the breast with an open mouth. Once they have taken the breast into their mouth, they stretch and draw the nipple outward by sucking actively.

Gently stimulating the nipples before a feeding can also help. This likely triggers oxytocin, which makes the nipples harder, makes them protrude more and brings a positive emotion to the baby when they start sucking – the milk flows immediately. A good technique to help the baby latch onto the breast is creating a "breast fold": support the breast from below with your fingers and gently press with your thumb. Once the baby has latched onto the breast and is sucking actively, release the breast. It is important to ensure that you are not pressing too close to the nipple.

**The baby refuses the breast.** Sometimes, the baby may cry and appear hungry, but when offered the breast, they become even more upset. Stop offering the breast for a moment and instead hold the baby securely and comfort them. If the mother feels rest-

less or anxious, the baby senses this and becomes anxious as well – if possible, ask your partner to take care of the baby for a while, relax and then try again later. To start, try expressing a little milk into the baby's mouth directly. Some babies may be more willing to suckle when they know what to expect. Trying different positions, changing the environment and the baby being a bit sleeper might also help.

**If it seems like there is not enough breast milk.** The amount of breast milk depends on how frequently the breasts are emptied, the duration of

breastfeeding and the effectiveness of the baby's sucking technique. Often, it seems like there is not enough milk when there actually is. Changes occurring in the breasts about 1–2 months after giving birth might make many mothers feel like their breasts are empty and saggy, therefore the breast

## WHEN THE BABY DOES NOT GAIN WEIGHT

Sometimes, a baby genuinely gets too little breast milk – then their weight does not increase. The reasons can be different, but the advice for the mother remains the same.

- Try to feed more frequently and for as long as the baby desires. Babies with a low birth weight are often sleepy, sleep more, and do not wake up every time they are hungry. Wake an oversleeping baby for feeding approximately every 2–2.5 hours.
- Offer the other breast each time. If the baby has actively nursed for about 20 minutes on one breast and is still restless, switch sides – let the baby decide whether they want it or not. Meanwhile, you can hold the baby upright to allow swallowed air during feeding to escape. Afterward, the baby will be more comfortable and there will be more room in their stomach for milk.
- Avoid using a bottle or pacifier.
- Connect with other breastfeeding mothers, visit a support group for mothers, etc.



- Consult a lactation consultant. When starting supplemental feeding, the number of breastfeeding sessions should not decrease. Always offer the breast first, then supplementary food.
- Feed the baby regularly at night as well.

### **The baby has received a sufficient amount of breast milk if:**

- they urinate at least 6–8 times a day,
- they gain at least 500–600 grams per month in weight (calculate weight gain in the first month from the lowest recorded weight, not birth weight),
- they grow taller,
- they feed at least 8 times a day.

milk is gone. Try offering both breasts at each feeding. This way, the baby gets more.

It is often a matter of interpreting the baby's behaviour – the mother might feel that the baby is restless and needs to eat all the time, there is probably not enough milk and it should be given more from a bottle. Many babies have restless and frequent feeding periods every few weeks, during which they stimulate increased milk production. During these times, it is important to take a break, spend a couple of days at home focusing only on the baby until the milk supply increases and everything falls back into place. If you are still unsure, consult with a midwife or lactation consultant before offering supplements.

**Breast engorgement.** Refusal and resistance to breastfeeding during the first week of life might be related to breast engorgement. This can occur due to an increased milk supply at the beginning of breastfeeding. Typically, you leave the hospital with your baby on the second or third day of life, around the time milk supply increases. Initially, there might be more milk than the baby needs. The breast becomes swollen, hot, firm and the skin feels tight. The nipple area is also tight, making it difficult for the baby to latch and get milk. The baby announces this loudly. A crying baby becomes increasingly agitated, making it harder for them to latch onto the breast.

Peace is the best treatment here as well. Calm yourself and then try to calm the baby. There are simple techniques to make the breast softer and easier for the baby to latch onto during engorgement. For example, place something warm on the breast before breastfeeding, like a warm bag or a warm towel. If possible, you can take a short warm shower. When the breast is warm, you can manually express a little milk for relief, helping the milk flow. This makes the breast slightly emptier and softer, the

nipple area is less tight and it becomes easier for the baby to latch.

If the breast feels uncomfortably full, you can also pump some milk for relief. Do this before breastfeeding and only a little. Otherwise, the breasts will receive a signal that a lot of milk is being consumed and more has to be produced. After breastfeeding, apply something cool to the breast, like a cold pack, a cold towel, or clean, washed cabbage leaves taken from the fridge. Line the entire breast with them, leaving the nipple exposed. The cold helps reduce swelling and alleviates discomfort.

Initially, there might be more milk than the baby needs.

**Mastitis.** Breast infection or mastitis typically begins with a blocked milk duct, which closes off a lobe in the breast, obstructing the flow of milk in the breast. This results in a hard and painful lump in one breast. Sometimes, this lump remains deep inside the breast and can be difficult to locate. As the blockage persists, pressure in the breast increases because more milk continues to be produced. The lump remains, the pain intensifies and overall discomfort sets in. Signs of inflammation may then appear – a high fever with chills and a headache.

To prevent the blockage from developing into inflammation, it is crucial to take immediate action. The most important step is to release the blockage so that the breast milk can flow again. Your baby can assist with this by breastfeeding on demand, but do not intentionally increase feeding frequency from the breast affected by mastitis. Increased removal of breast milk increases production, so overfeeding or “emptying out” creates a vicious cycle and is a primary risk factor for worsening tissue swelling and inflammation. You can manually express a little milk from the breast to make you more comfortable until milk production adjusts to your baby's needs. Mothers using a breast pump should pump only the amount their baby consumes. You can gen-

tly massage the area of the lump towards the nipple direction, but avoid deep tissue massage. Deep massage can worsen inflammation, tissue swelling and microvascular injury. Also, avoid electric massagers – while breast massage may reduce pain, it is not suitable as a home remedy. After feeding, place something cold (crushed ice in a towel, a cold compress with cold water) on the area of the lump for 15-20 minutes and leave the breast undisturbed for a few hours. Feed the baby from the other breast as well.

By using these techniques, your condition will typically improve and severe inflammation will not develop. Pain around the lump in the breast might last for a while, but frequent breastfeeding usually resolves the concern. If the situation does not improve and fever persists for over 24 hours, consult a midwife, family doctor or obstetrician.

**If breastfeeding is not possible or not recommended.** Sometimes, due to the health of the mother or the child, breastfeeding may be contraindicated. In such cases, during the first year of life, the baby

must be given formula milk, following precise instructions on the package when preparing them. Cow's milk should not be offered to an infant under 1 year of age.

Breastfeeding is contraindicated if

- the baby has a rare metabolic disorder (galactosemia);
- the mother has a dangerous infectious disease, HIV, AIDS or acute untreatable tuberculosis;
- the mother needs to take medications that are absorbed into breast milk, such as cancer medication, lithium, ergotamine, methotrexate, tranquilisers or sedatives;
- the mother has substance abuse issues.

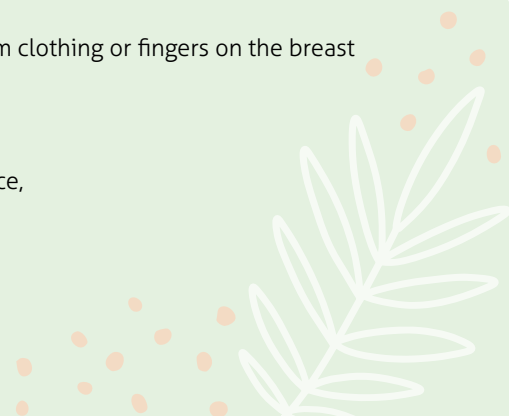
Breastfeeding may be disrupted if:

- the mother has a rare deficiency of breast glandular tissue or trauma, or post-surgery damage to nipple nerves;
- the mother has a serious health condition that prevents her from adequately caring for the child;
- the mother's harmful habits (smoking, alcohol) alter the taste of breast milk, might decrease its quantity and cause restlessness in the baby;
- the child has health issues (cleft lip or palate, Down syndrome, significant heart defects);
- the child has an extremely strong allergy.

## WHY DOES MASTITIS OCCUR?

Inflammation occurs due to blockage of the milk duct, caused by one or several reasons:

- too infrequent or short breastfeeding;
- sudden changes in the frequency of breastfeeding sessions: for example, if the baby skips a nighttime feeding, temporary separation from the baby, introducing supplementary foods too early or abruptly, or returning to work and not expressing breast milk;
- uncomfortable position, excessive pressure from clothing or fingers on the breast during feeding;
- mother's stress,
- hyperlactation or excessive milk production,
- factors related to the microbiome and its balance,
- use of antibiotics or probiotics.



**A breastfed baby does not need a bottle.** It is not advisable to use a pacifier during engorgement and in the first few weeks after birth when the baby is still learning to get milk from the breast. Using a pacifier from birth can lead to incorrect latch techniques for the baby, breastfeeding may become painful and you may not produce enough breast milk. When using a pacifier, the baby takes longer breaks between feeds and as a result the amount of breast milk may decrease. A breastfed baby does not need a pacifier later on either. Offering a bottle regularly may lead to early weaning from breastfeeding. The amount of milk decreases and the baby might refuse the breast even if you offer the bottle only a few times a week.

**Cup and needleless syringe method.** Sometimes, it is necessary to temporarily feed the baby in a way other than directly from the breast. For this, it is necessary to manually express the milk from the breast and offer it to the baby either from a spoon, from a small cup or from a needleless syringe. Milk can also be offered from your own finger, as the baby can successfully suck it. Using a cup, fill it one-third full and tilt it so that the liquid level reaches the rim of the cup – the baby tastes and smells the first drop of milk, puckers their lips and begins to suck over the rim of the cup at their own pace. This method can be used even for very small or premature babies.

For newborns, milk can be given from a larger needleless syringe. Syringe feeding is recommended if the baby refuses to latch. To help the baby, you can drip milk from the syringe onto the nipple field so that it trickles onto the nipple and you can also drip breast milk from the syringe into the baby's mouth or onto your thumb, where the baby can suck it.

Eat diversely  
to obtain  
vitamins,  
minerals and  
energy.

## Breastfeeding mother's nutrition

During breastfeeding, a woman's energy needs increase by about 500 kcal. You do not need to eat significantly more, but ensure a diverse diet to provide your body with vitamins, minerals and energy.

Avoid sweets and aim for a menu rich in fruits, vegetables, whole grains and high-quality protein sources. Most women lose around 5-6 kilograms of their pregnancy weight after childbirth and an additional 1-3 kilograms in the following weeks. The remaining extra weight is nature's way of providing for breast milk production. Further weight loss depends on your daily menu, intensity of breastfeeding, physical activity and metabolism.

Drink enough water – enough that you do not feel thirsty. During breastfeeding, your fluid intake is higher than usual and should be proportional to milk production. Producing around 750 ml of breast milk daily for the first six months increases a breastfeeding mother's daily fluid needs by about 600–700 millilitres. Drink clean water as much as you can, but you can also drink homemade juice, herbal teas, etc. Fennel, anise and cumin teas are suitable for nursing mothers. Keep a drink within reach throughout the day. If possible, refrain from coffee and other caffeine-containing beverages like strong tea, sodas or energy drinks. They stimulate you and might make the baby restless.

Although breastfeeding requires energy and helps shed weight, lack of physical activity during this time can lead to weight gain. It is not recommended to diet while breastfeeding, but to increase physical activity to avoid postpartum weight gain. The easiest and best way to do this is to walk outdoors with your baby.







# From birth to first steps

Baby development  
in the first year

What to do when  
the baby cries

When the child gets sick

Teething

When to start  
complementary food



# The baby's first year

## Newborn reflexes

Although the baby is tiny at birth, they already have a range of essential skills. These are reflexes, specific movements that occur as a result of stimulating certain parts of the body. The fact that a newborn pushes themselves from the mother's abdomen to the breast, finds the nipple and swallows milk without choking is possible thanks to reflexes. Some reflexes remain for life, while others gradually disappear, making way for intentional control over movements.

**Rooting reflex.** Gently touching the newborn's cheek or the corner of their mouth causes them to turn their head towards the touch and try to grasp it with their mouth. This is how they find the mother's breast. This reflex disappears after the 3rd or 4th month.

**Sucking reflex.** If a nipple or finger gets into the baby's mouth, they respond with sucking and rhythmic movements of the mouth and tongue.

**Hand-mouth (Babkin) reflex.** Pressing the baby's palm causes them to open their mouth and bend their head. This reflex serves as the basis for other reflexes that coordinate hand-to-mouth actions, so the child can learn to put things from hand to mouth. It disappears after three to four months.

If the baby is on their stomach and you support them under the soles, the baby will push themselves forward.

**Asymmetrical tonic neck reflex (ATNR).** This reflex is present when the baby lies on their back and creates a fencer-like pose: the head is turned either to the right or to the left and the arm and leg on the side of the face are extended, while the arm and leg on the side of the back are bent. The reflex starts to decrease in the 1st or 2nd month and disappears around the 4th month.

**Grasp reflex.** When a finger is placed in the baby's palm, they grab it tightly and strengthen their grip when the object is pulled away. This reflex disappears around three to five months when the baby learns to intentionally grasp objects.

**Moro or startle reflex.** If the baby gets frightened or has a fear of falling, they spread their arms and fingers, tense all their muscles and extend their head back. Then, they bring their hands back to the chest and clench their fingers into a fist.

This reflex disappears around four months.

**Crawling reflex.** When the baby is on their stomach and you support them under the soles, the baby pushes themselves forward. This reflex disappears around four months and is replaced by intentional movements.

**Protective reflex.** A baby on their stomach turns their head to the side. This reflex protects against suffocation.

**Stepping reflex.** Holding the baby upright with their feet on a solid surface and moving them for-

ward prompts them to lift their legs as if attempting to walk. This reflex disappears after the 2nd or 3rd month.

## Baby's development

**Emotional development and speech.** Babies show great interest in faces and voices. When feeding and interacting with the baby, look into their eyes and speak soothingly. Even a newborn is capable of learning, associating and remembering. Babies enjoy interaction and soon they can start to mimic you. For example, a two-week-old baby observes as their mother puckers her lips and successfully imitates it.

On average, in the 2nd month of life, the baby learns to smile when communicating with you, recognise their own voice and produce various sounds and noises. They actively seek face-to-face communication with you. Around three months, they begin cooing and laugh with their voice. Around this time,

their temperament becomes distinguishable. At around 4–5 months, the baby starts babbling, forming syllables and responding to you when you speak to them.

Around 7–8 months, various emotions can be expressed through babbling, through which the baby can indicate their desires, e.g. when they are hungry. They mimic surrounding sounds and react to changes in your voice. Around this age, the baby starts to understand their name and that their mother is a separate individual, leading to estrangement and separation anxiety.

Around 9–12 months, the baby can imitate syllables and say meaningful words and syllables. By this time, the type of attachment relationship, or special emotional bond, between the child and parent has developed, which can be either secure or insecure. The latter include avoidant, ambivalent and disorganised attachment relationships.

**Vision.** After birth, the baby may not open their eyes immediately or may open only one eye. Because the eye muscles are not yet strong enough, they may initially look a bit cross-eyed. Once the swelling around the eyes decreases, this issue should resolve. If the baby continues to be cross-eyed at four months old, consult with a family doctor.



## PROVIDE A SENSE OF SECURITY

During the baby's first year, you can help them shape their perception of the world. Communicate with them whenever possible, cuddle and caress them, talk to them clearly and narrate your activities. By watching you, the baby learns about different emotions and behaviours. A strong bond with the person most important to them instills a sense of security and trust in the world. Acquired in childhood, they remain for life.

A newborn's initial communication with the mother occurs through eye contact. As a newborn's vision is limited and distant objects appear blurry, the optimal communication distance is between 20-30 centimetres. This is just the right distance from the baby's eyes to their mother's eyes when held against the chest. Until the third week of life, the baby does not perceive colours and their depth perception is limited. Therefore, it is good to have contrasting colours and rounded shapes in their surrounding environment. Displaying such images or toys can help develop the baby's sense of sight.

Babies like to look at faces the most. A baby may thoroughly examine your face and hair for a long time, but they seem to like your eyes the most – there they may fixate their serious and inquisitive gaze for a while. Babies are sensitive to bright light,

so introduce them to light gradually; initially, the baby's room should be dimly lit.

By six weeks, the baby's eyes can work together most of the time.

By three months, they can recognise specific faces and objects in their lives and can fixate their gaze on an interesting object for quite a long time.

**Hearing.** A newborn's hearing is sufficiently developed. The womb is not as quiet as one might think and the newborn has heard many external sounds during their life in the womb and they are able to recognise them, especially the mother's voice, even after birth. Loud sounds may evoke sensations similar to pain in newborns and constant quiet background music is unnecessary too.

Soon, the baby learns to distinguish important sounds from background noise, so they can, for example, sleep peacefully amid the chatter of siblings

## SUPPORT THE BABY'S COMPREHENSIVE DEVELOPMENT

- Talk to your baby when you are doing activities with them, name activities, people and objects.
- Play soft music and sing to them.
- Offer toys that encourage movement, but avoid overwhelming the baby with too many toys.
- Hold the baby close to you a lot, hug and caress them.
- Exercise at home and encourage the training of new skills; if you want, join a baby aerobics group, but a lot can be done at home as well.
- If possible, go swimming – it is suitable for babies of all ages, promotes comprehensive development, soothes them and helps them become familiar with water. Start in the baby pools. You can move on to the larger pool from 6 to 7 months of age.

Take time to be with your baby and cherish these moments – your baby will be small for a very short time.



and wake up to the mother's soft voice. When talking or singing to the baby, hold them in front of you and make eye contact – this helps them associate your face with your voice better and learn faster.

## Physical development

During the first year of life, the baby develops rapidly and goes through certain stages of development. Every milestone in motor development is important and you shouldn't try to skip any or rush toward the goal of getting the baby to walk as quickly as possible. For you, this is a time to effectively support their development. If you offer your child age-appropriate activities, exercise and play with them, massage and caress them, your relationship and the baby's self-confidence will develop in addition to motor skills.

### 0–3 months

- A one-month-old baby can look into your eyes and fix their gaze for some time. In the first month, the baby does not have much control over their body and their reflexes do most

When talking or singing to the baby, hold them in front of you and make eye contact.

### FIRST EXERCISE: TUMMY TIME.

An excellent exercise for neck and core muscle development is tummy time. You can place the baby on their stomach once their umbilical stump has fallen off and their navel has healed. Until the baby can turn on their own, they need your help. At first, a few seconds on their stomach is enough. Do this several times a day. Gradually increase the time based on how well the baby can hold their head up. Avoid putting the baby to sleep on their stomach. Babies sleep on their sides or backs.

of the work. They move while awake but cannot yet control their body voluntarily.

- Around the second month, the baby learns to maintain a symmetrical body position. They can hold their head in line with their body for a longer time, look at you and smile.
- Between the second and third months, the baby can bring their hands to the center of their body and hold their head steadily. They can intentionally touch a toy or face in front of them. Their neck muscles have become stronger and their head does not require as much support from you.

- Around the third month, the baby can lift themselves onto their forearms while lying on their stomach, hold their head up and explore their surroundings.

During the first couple of months, a significant part of the baby's day is spent lying down. Divide their brief awake time between feeding, interacting, exercising and performing hygiene activities.

Since the baby's neck muscles are still weak, support their head when lifting and holding them. To help the baby firmly hold their head, do exercises with them to strengthen the neck muscles. From the second month onward, a suitable exercise involves taking the baby's forearms in your hands, with your thumbs in their palms and slowly pulling them from a supine position to a half-sitting position.

Hang rattles above where the baby lies so they can learn to hit and grab them. Make baby gymnastics part of your morning routine at home. Set it at a time when the baby is well-fed, burped, has peed and pooped and is in a good mood. Exercising and massaging the baby is also your bonding time and makes both of you happy. A play mat and a few toys to look at and grab are good to have, but too many toys will tire the baby.

If the baby is restless and wants closeness, a baby carrier is a useful tool. Make sure that the baby does not stay in the carrier for too long and that you have time to learn motor skills.

### 3–6 months

- Around 4 months, the baby learns to intentionally grasp a toy. Their hands are no longer tightly closed in a fist.
- Around 4–5 months, they start rolling from their back to their stomach. Now, they must not be left alone on the changing table for a moment.
- Around 5 months, the baby learns to roll from their stomach to their back, support themselves on their wrists while on their stomach and move circularly around their own axis. Their fingers may still be bent and their hands may be in a fist while they are on their stomach.
- Around 6–7 months, the baby begins crawling, with the belly against the surface. Some babies can also move backwards in this position.

Help the baby open their fists by gently stroking their palms. Introduce the baby to their toes and knees so that they can start to lift and touch them. Place toys on either side to make them interested in turning towards them.

Children use different styles to move with their belly against the ground. Not all babies may learn to crawl the classic way that involves alternating arm and leg movements. The alternating use of both sides of the body is crucial for a child's coordination development and they typically achieve this training when they start crawling.

### 6–9 months

- Around 6 months, the baby starts to push themselves onto straight arms while they are on their stomach and their palms are open.

- Around 7–8 months, sitting balance develops and the baby can maintain balance while sitting for a short time.
- Around 8 months, the child starts to crawl. The baby is able to rise from the prone position to the crawling position, rock back and forth and move forward.
- Around 8–9 months, the baby can independently go from the crawling position or lying on the side to sitting and can also return to crawling or lie on the stomach.

By now, the baby should spend most of their awake time in the prone position – initially by pushing up with straight arms, then by pushing themselves forward using the support of their palms and eventually starting to crawl. Crawling is a significant step in the baby's coordination and muscle development. You can

consciously support the progression of this skill at home by encouraging the baby to move and providing opportunities for floor activities. The baby should only be in the baby seat while eating complementary foods.

### 9–12 months

- Around 8–9 months, the baby starts pulling themselves up with support, first on their knees, then putting one foot down and pushing up.
- Around 9–10 months, the baby learns how to squat, half-kneel and sit down while standing. They also learn to take sideways steps with support.
- At the average age of one year, the child begins to walk independently. Initially, they take steps with support, pushing an object in front of them. This will soon be followed by the ability to move without support.

While children are generally ready to walk around the age of one, there is no need to rush this process. Instead, focus on supporting crawling, as it is a very important exercise for further development and muscles.

Crawling is a significant step in the baby's coordination and muscle development.



## How to care for the baby

### Skin care

Babies often experience changes in their skin that require attention. Chafing in skin folds is common – reddish irritation without blisters, which babies usually tolerate well. Air baths, careful washing and thorough drying after each wash help alleviate the chafing. The baby's skin does not require any cleanser, just clean their butt with running water in the direction from front to back. Use a soft terry cloth towel. Pat dry, avoid rubbing. Wet wipes are intended for emergency use, such as when travelling or visiting the doctor. Avoid regular use at home. If the skin is dry, let the baby be exposed to air. If the diaper area is red, place the baby on an absorbent underpad and allow them to be without a diaper for longer periods of time, up to thirty minutes. The more severe the chafing, the longer

you should allow the baby to air bath. If needed, apply an ointment containing zinc oxide or bepantenol to the reddened skin.

If blisters and scabs appear on the skin, it indicates an inflammatory process. Show the baby's skin to a family doctor or nurse who will assess the child's condition and, if necessary, recommend an appropriate medication.

In the first weeks of life, babies may develop pimples on their face resembling acne. This is known as an adaptation rash, which usually disappears on its own. However, it may progress to baby acne, associated with maternal hormones. For baby acne, frequent washing of the baby's face (5-6 times a day) with cool water is helpful. Pat the face dry and apply a cream containing bepantenol. By the end of the second month, the baby will grow out of the acne.

For the baby's flaky and dry skin, a fragrance-free liquid cream from the pharmacy is beneficial. You can also add a teaspoon of high-quality edible oil to the baby's bathwater. Be cautious when lifting the baby out of the water, as the oil may make them a bit slippery.

## Baby's poo

When assessing a baby's health, the quantity and consistency of their poo are more important indicators than colour and frequency. In breastfed babies, poo is typically yellow. A greenish colour is not a sign of illness, but depends on the mother's diet. For formula-fed babies, the stools may be greener and firmer.

During the first few months, the baby may have a bowel movement with each feeding, in the following months the frequency may decrease – at first once or twice a day, later even every few days to a week. This is within the normal range, but it is important to monitor the baby's weight gain. If the baby is gaining weight well, behaving normally, and is cheerful, pooing once a week is not a problem.

Stool that does not spill out of the diaper is considered normal. In the first month, poo spilling out of the diaper may not mean diarrhoea, but from the second month onward, diarrhoea may be suspected. If you notice frothy, watery poo in the diaper, but the baby is eating and happy, you could give the baby a probiotic drop course for up to ten days. If nothing changes, consult with the family doctor. Consult the family doctor also if the poo has changed and the child seems sick. Scanty, pellet-like, or infrequent stool may suggest that the baby is not getting enough to eat. Blood in poo

also requires discussion with the family doctor. Constipation usually occurs when the baby begins complementary feeding.

## Baby's sleep

A newborn sleeps an average of 16 hours a day, without distinguishing between night and day. A six-month-old sleeps 14-15 hours a day, of which about 9 hours are at night and the rest are two to three naps during the day. A one-year-old sleeps 14 hours, of which 10 hours are at night and the rest are one to two naps during the day.

**Own bed or parents' bed?** A newborn usually falls asleep on the mother's chest. If you fed your baby while sitting upright, place the sleeping baby in their designated sleeping place. While the baby is still eating at night, it is convenient for the mother to have the baby's sleeping place nearby for a few hours of sleep between feedings. The baby can sleep in the mother's arms. Although the mother's sleep may be interrupted when co-sleeping, the prolactin responsible for breast milk helps the mother to quickly fall asleep again. Most mothers sense the baby's movements well and do not roll over onto the baby during sleep.

If co-sleeping suits your family, there is no need to rush the baby to their own bed. The suitable time for this comes in the second year when the child does not eat very often at night anymore and their sleep is calmer and longer. However, there are children who want to continue sleeping with their parents at the age of two or move to their parents' bed when they wake up in the middle of the night.

**Night sleep.** Babies begin to distinguish between day and night around the second month but still wake up every 2-3 hours to eat. At three months, some babies may start to skip one night-time feeding and sleep for 6-8 hours in a row.

Babies begin to distinguish between day and night around the second month.



Night sleeps usually become longer in the second half of the first year. Although hunger may no longer wake the baby up at night, they can only sleep through the night once they learn to fall back asleep after waking up at night. This varies widely – some babies can do it in the second half of their first year, while others may wake up several times even at a year old, seeking their parents' company.

If your child wakes up at night, help them calm down and learn to fall back asleep. Go to them, make sure everything is okay, place your hand on their stomach, speak softly and calmly and wish them good night. For some children, this is enough and they can fall back asleep. If the baby seems to want to drink, offer breast milk or water for older babies. Avoid giving juice to the baby at night.



They can usually sleep better in a cooler room. Since babies tend to kick off their blankets, they need to be warm enough in their pyjamas. A pillow is not necessary, the time for that comes when the child is a year old.

If your child's nighttime restlessness is tiring you out, take a nap with them during the day to get some rest. This way, you will be able to help your child learn to fall back asleep at night.

## Gas pains

In the first few weeks of life, most babies do not have gas pains. Some babies may not develop them at all. The causes of gas pains are not entirely clear and most likely they are due to the baby's developing digestive system. The most common time for gas pains to occur is at the end of the first month. The so-called rule of three applies: they start in the third week of life, last for three hours at a time, occur three days a week and end after three months. The baby may cry due to gas even before that, but then it is more like whimpering and grunting that

## A SOLID RHYTHM HELPS THEM FALL ASLEEP

Leaving your baby to cry alone in bed for a long time can be a traumatic experience for both you and the baby. Instead, establish a suitable daily routine because babies need a rhythm – go to bed and wake up at the same time each day with a consistent routine. A steady rhythm also helps them get better sleep at night. Ensure that the baby is not overstimulated – an overtired baby does not sleep well.

Place the baby in their crib, be by their side, read a book quietly or sing a lullaby. Make the room dim and quiet. You can gently place your hand on the baby for reassurance.

occurs after eating and stops when the gas bubble comes out as a fart.

Signs of gas pains include intense crying and a bloated stomach. The baby may cry for 2-3 hours straight and nothing can calm them down. These crying episodes often occur in the evening, may last into the night and there may be periods of calmness in between. Fatigue during the day can also contribute to these crying episodes.

Comfort your baby while they are experiencing gas pains with your closeness, pick them up, move around with them. If this does not help, massage

their stomach with your warm hand. Some babies find relief from a warm water bag, others from a warm pouch filled with grains, such as cherry pits – warm it up and place it on the baby's stomach. A warm bath can also help soothe some babies.

A crying baby experiencing gas pains can be challenging for the family. When the mother

## THE SECRET LANGUAGE OF BABY CRYING

Crying is the baby's first form of communication. In the first months they can only express feelings of tiredness, hunger or discomfort in this way. Mothers quickly learn to understand the baby's cries by observing them.

Crying can also be triggered by the need for closeness. Babies like to hear their parents' voices and be cuddled. Always offer closeness whenever possible – in the first months, you cannot spoil a baby by holding them in your arms. Crying can also be caused by excessive stimulation – bright lights, sounds, moving from lap to lap can tire the baby and crying might be the baby's way of asking for peace and quiet.

Smaller babies may feel safer wrapped in a blanket near their mother, while older ones might prefer to be separate in a quieter place to calm down together.

A high pitch, inconsolable cry may indicate gas pains. If such crying is accompanied by fever and refusal to eat, it is due to an illness. A quiet, whimpering cry is also a sign of illness or pain, which requires consultation with a doctor.



In addition to these reasons, there is the usual daily crying. A healthy baby cries for an average of 2-3 hours a day. Some babies may cry more without any underlying health issues. In most cases, the crying stops when you pick up the baby, change their diaper or take a walk together. If you find yourself unsure about the reason for their crying, offer the child closeness and assurance that you are calm and strong and know what to do. The child senses your calmness and usually stops crying.

becomes anxious, the baby senses it and the crying may intensify. During gas pain crying, the mother needs support – perhaps you can arrange for the father to take care of the baby and the mother can go for a walk, or perhaps the grandmother can help. Grandmothers usually know how to hold the baby gently without becoming anxious about the crying.

Probiotics or gas pain relief for babies can also help. The latter comes in various forms, but all are simethicone-based. Both probiotics and gas medicine should be given regularly before each meal until the end of the gassy period. Since the baby initially eats every 2-3 hours, gas medicine needs to be administered quite frequently. Consult the pharmacy for advice and be sure to follow the recommended quantities. Simethicone affects only the intestines and does not create dependency. Gas pains usually disappear by the 4th month of life.

## Teething and dental care

Teething typically begins between the 6th and 12th month – the lower incisors usually come first, followed by the upper incisors. Usually, by the age of three, a child has all 20 milk teeth. Teething can cause pain for the child. To alleviate gum discomfort, cool teething toys are quite effective – keep them in the refrigerator before giving them to the baby to chew. For older babies, you can offer cool drinks and additional food for relief. If the baby is still uncomfortable, massage their gums with a clean finger and squeeze a special pain-relieving gel on their gums.

Teething can make the baby irritable and cause a temporary fever. If the fever is high, consult a doctor, as a high fever is not a typical symptom of teething.

Incorporate tooth brushing into playtime and choose a moment when the baby is in a good mood.

Start brushing as soon as the first incisor begins to emerge. Use a small-headed children's toothbrush or a silicone finger brush for brushing. Toothpaste is not necessary. At first, one brushing a day is enough. Incorporate brushing into playtime and choose a moment when the baby is in a good mood. You do not have to go to the bathroom for this, wet the brush with water and playfully brush the baby's teeth. It is important that this becomes a pleasant habit for the child.

Replace the finger brush with a regular small-headed children's toothbrush around the age of one. The toothpaste stage comes when the child has rear molars and can spit. Get a fluoride toothpaste for toddlers. A rice grain-sized amount each time is enough.

To maintain the baby's oral health, observe the following.

- When starting complementary feeding, prefer vegetable purees over sweet fruit purees.
- Do not give food with the same spoon you used to taste the child's food, use the child's own spoon. The child's eating utensils should only go in their mouth!
- If the child's pacifier falls, do not clean it in your own mouth, rinse it with water.
- Take the breast or bottle out of the sleeping baby's mouth.
- Do not give sweet drinks from the bottle.
- If the child has a strong sucking need, use a pacifier.
- When brushing the child's teeth, check for any discolouration, spots, etc. that do not come off with brushing. If you notice anything, take the child to a dentist.

By following these tips, you help prevent later problems. Children's dental care is covered by the Health Insurance Fund until the child turns 19.

## BABY'S HEALTH CHECKS

You get your baby's first development and care consultation at the maternity ward. Back home, you can discuss baby care and breastfeeding with your midwife, family nurse or family doctor, who will either make a home visit on the baby's 5th to 7th day of life or schedule you for an appointment at the health or family centre. In some cases, due to early discharge or the baby's health, you may be called for the baby's first week visit at the maternity ward. In the future, the baby's development will be monitored by the family doctor and you will have appointments almost every month throughout the baby's first year of life. During these visits, the baby is weighed and measured and their growth and developmental skills are assessed.

Healthy babies usually do not undergo special examinations. Only infants aged 9-12 months who are either breastfed or have limited diets have a clinical blood analysis performed to assess haemoglobin or iron levels, as well as the count of white and red blood cells. As the baby is already consuming solid food at this time, it helps provide more detailed advice to the mother regarding menu planning if needed.

## IMMUNISATION SCHEDULE

According to the national calendar, children in Estonia are vaccinated from the first day of life.

<b>Age</b>	<b>Vaccine</b>
12 hours	Hepatitis B (1st dose*)
1-5 days	Tuberculosis
2 months	Rotavirus infection (1st dose)
3 months	polio-diphtheria-tetanus-pertussis – <i>Haemophilus influenzae</i> type b and hepatitis B (1st dose) and rotavirus infection (2nd dose)
4.5 months	polio-diphtheria-tetanus-pertussis – <i>Haemophilus influenzae</i> type b and hepatitis B (2nd dose) and rotavirus infection (3rd dose)**
6 months	polio-diphtheria-tetanus-pertussis – <i>Haemophilus influenzae</i> type b and hepatitis B (3rd dose)
1 year	measles-mumps-rubella (1st dose)
1.5-2 years	polio-diphtheria-tetanus-pertussis – <i>Haemophilus influenzae</i> type b and hepatitis B (4th dose)
6-7 years	polio-diphtheria-tetanus-pertussis (5th dose)
12-14 years	human papillomavirus (HPV)***
13 years	measles-mumps-rubella (2nd dose)
15-16 years	diphtheria-tetanus-pertussis (6th dose)
25, 35, etc. years	(every 10 years) diphtheria-tetanus

*In addition, children can be vaccinated against other infectious diseases for a fee. The risk group for seasonal flu vaccination includes children aged 6 months to 7 years and children and adolescents aged 8-19 who have health conditions that pose an elevated risk. The cost of their vaccination is covered by the Health Insurance Fund. You can get more information from your family doctor or nurse.*

\* Only for newborns born to HBsAg-positive mothers or mothers not tested for hepatitis B during pregnancy.

\*\* only for the pentavalent rotavirus vaccine.

## Starting complementary feeding

The World Health Organization recommends exclusive breastfeeding for the first 6 months of a baby's life. Six-month-olds definitely need complementary food in addition to breast milk. If a baby has poor weight gain, you may start complementary feeding earlier. Consult with your family doctor, nurse or midwife on this. The first solid food would ideally be vegetable puree. Since the baby is not yet sitting on their own at this time, you can feed them while they sit on your lap. Offer the pureed food with a spoon. Once the child is accustomed to vegetables, you can introduce porridges to the menu – start with those made from oat flour, for example. At 7 months, include meat in their menu, starting with minced meat.

At eight months, the baby can already chew, handle chunks in food and sit on their own in the high chair. At this point, you can offer finger food made from high-quality fruits and vegetables – peeled apple or pear slices, boiled carrot sticks, boiled broccoli or cauliflower florets.

Porridges no longer need to be made from flour, you can use finer flakes. At this age, the child will hold their own spoon, practice drinking from a cup and eating together with the family at the table. At 9-10 months, you can gradually introduce them to the same foods that the rest of the family eats: soups and vegetable stews made from quality ingredients. Make larger pieces of food smaller at first. Semi-finished products, fast food and spicy dishes are not suitable for a baby's diet. Limit the salt in family meals or place the baby's portion on their plate before you add salt to the rest of the food.

Do not worry about the baby getting something stuck in their throat – learning to take solid food from a spoon, move it around the mouth and swallow is an important developmental skill. If the child has not received chunkier

food by the 10th month, they may develop aversions, which may disrupt their future eating habits and development.



## ABCS OF STARTING COMPLEMENTARY FOODS

- Always offer complementary foods before breastfeeding.
- Offer one new complementary food consisting of one component at a time, preferably every three days. Monitor the baby's well-being.
- Start with approximately half a teaspoon of each new food, gradually increasing the amount in the future.
- The baby may not immediately like the new taste. If there are no health issues (diarrhoea, rash), continue offering it – it often takes 10-15 tastings before the baby gets used to the new food.
- There should be one complementary meal a day at six months, two at seven months and three at eight months.

Cow's milk can be offered as a beverage alongside food from the age of 2.

Introducing complementary food provides an opportunity to establish habits essential for a new life – dietary habits begin in infancy. Set the table and create a pleasant atmosphere, as this will help the child see eating as not only necessary but also enjoyable. While eating, let your and your family's attention be on the food. It is not a good idea to show your child a book next to the food or to distract them with toys or screens. The child senses how you and the family feel about food and feeding them, shaping their understanding of mealtime behaviour.

It is common for a completely healthy child to eat less or be selective about food at times. This may make you want to entice the baby to eat, whether through play or coercion. If the child does not want to eat, there is no need to force them. Do not make eating a problem, maintain regular meal times and avoid giving snacks between meals – cookies, juices, candies or other sweets are not suitable for babies. These contain sugars. Too much of them prevents the feeling of hunger and therefore the child will not eat much at the next meal. Additionally, sweet snacks tend to contribute to the development of excess weight. Between meals, offer your baby water in a cup if necessary.

## Outdoor activities and strengthening the immune system

The immune system strengthens as the child grows. Natural resistance develops through direct exposure to pathogens. Such immunity develops slowly, lasts for a long time and acts against a specific pathogen. It is important for a baby's development that they have a daily routine that includes sufficient sleep, proper nutrition and going outside. During spring and summer, babies can also get sunlight during outings. The duration of a baby's outdoor time depends on their sleep schedule – if they eat at 2–3 hour intervals initially, they cannot be outside for very long. If possible, let your baby sleep outdoors. The baby

can be put to sleep outside or on the balcony even in winter, when it is warmer than  $-10^{\circ}\text{C}$  outside. This is the limit for outdoor activities for children up to one year old. A one-year-old can tolerate colder weather, so the limit depends on how the weather suits the mother. A windless day with temperatures around  $-12^{\circ}\text{C}$  to  $-13^{\circ}\text{C}$  is more suitable for walking compared to slushy weather with sleet and strong winds.

Check the baby's body temperature from the trunk – if it is warm on the back of the neck, the baby is fine. A cold or hot head, feet and hands do not count. Even when going outside, feel the back of the neck to see if the baby is warm or cold or comfortable and choose clothes accordingly.

## If the baby gets sick

**Fever.** A change in the baby's normal behaviour is a sign of illness. The normal body temperature, measured under the armpit, is up to  $37.3$  degrees. If the temperature is higher, offer more breast milk to younger babies and water to older ones. Remove excess clothing so the child can release heat. You can also cool the child by wiping their body with a cloth soaked in room-temperature water. If the fever rises to  $38.5$  degrees, use the previous cooling techniques and start reducing the fever with paracetamol suppositories designed for babies. If you are unsure what to do with a fever above  $38.5$  degrees, consult a doctor. Always consult a doctor if a child under three months has a fever.

**Runny nose.** A common health issue in babies is a stuffy or runny nose. Often, it is not an illness but rather a reaction to dry air. There is no medication for this kind of runny nose, but there are methods for improving the baby's well-being. Before each feeding, you can instill saline solution into the baby's nose. Keep the room air moist, use devices for cold steam inhalation filled with saline solution to provide relief (these are good for both colds and coughs), ventilate the room and elevate the baby's head slightly. Nasal aspirators are useful to help clear

the baby's nasal secretions, but using it too much can potentially damage the baby's nasal mucosa. Therefore, use it only when there is a lot of secretion. Fresh air is beneficial and a baby with a stuffy or runny

nose, without a fever, can be put to sleep outside or on the balcony. Steam, rinse, help the baby clear their nose. There is not much else you can do.

**Cough.** Most cold and cough medications are intended for children aged 1 and older or have even higher age limits. Children under one year of age cannot cough out sputum, so expectorant medications should not be given to them.

For coughing, the best remedy is cold steam inhalation. The pharmacy also sells balms that can be gently applied to babies' chests, backs and soles. They have a relaxing effect on the respiratory tract, making it easier to breathe. Products containing strong essential oils are not recommended as they can irritate the skin. It is also important during illness that the baby receives enough fluids. Breast milk or water is the most suitable for this.



### WHAT SHOULD BE IN A HOME PHARMACY?

Even before the baby is born, stock up the home pharmacy with the following:

- a thermometer (the most accurate is the so-called old-school thermometer),
- disinfecting solution,
- vitamin D,
- wound plasters in different sizes,
- antipyretics (paracetamol suppositories, paracetamol or ibuprofen syrups from 6 months)
- gas pain relievers,
- physiological solution (for the nose or to put in the inhalation device),
- inhaler,
- base creams (a thicker one for winter and more liquid one for summer),
- zinc ointment (for chafing),
- gel (for treating burns).

### ASK FOR ADVICE FROM THE FAMILY DOCTOR OR THE FAMILY DOCTOR'S INFORMATION LINE IF...

- the baby has a fever of over 38.5 degrees that does not go down with home antipyretics,
- the baby has laboured breathing,
- the baby is not eating and has not peed for 8 hours.

### CALL AN AMBULANCE IF ...

- the baby develops a high temperature quickly, the child is lethargic or cries very loudly or has convulsions,
- the baby has fallen off the sofa, changing table or elsewhere accompanied by vomiting, loss of consciousness, lethargy, convulsions or other changes in the child's condition.







## We are growing together

Becoming a parent can be both very happy and scary at the same time. Am I able to do this? Can I handle it? Do I have the strength? Try to see growing into a family as an ever-evolving journey. You learn and develop with your child every day.

Openly communicate with your partner and share your thoughts and feelings before the baby arrives. The more you have discussed in advance how to divide household tasks, activities related to child care and who will be your support system for those moments when you need time alone as a couple, the less tension you will experience later on.

While there are many parenting theories and your loved ones mean well by sharing advice and suggestions on how to raise your baby, learn to listen to your gut and instincts. You know your baby the best and are the specialists. Keep information and guidelines nearby, but remember your child and family are entirely unique. Sometimes, taking a more relaxed approach and simply going with the flow in growing as a family can be beneficial.

It is normal to feel tired as a mother. Not every day is sunny and routine can create a feeling of being trapped. Sleep with your baby during the day, cry if necessary and try to find an opportunity to rest. Be sure to ask for some alone time before fatigue takes over. Take walks, meet friends, sleep, read a book – do things that fill your cup!

Do not forget about your relationship. Just because you have become parents does not mean you should only be mum and dad. Occasionally take time to do things that nurture you as a woman and a man and maintain your relationship. A loving and close relationship between the parents positively influences children. Children are particularly sensitive to mood swings at home and parents' satisfaction quickly transfers to them.

Being a parent is challenging and a big responsibility, but it gives meaning and a broader perspective on life. The unconditional love of your child and their admiration for you softens your heart. To your child, you are the bravest, the best, the strongest. Thanks to your child, you get the chance to see life through sincere child eyes, rediscover the simplest pleasures and learn about your own needs. You can create your own unique family with habits and rules that suit you. Be consciously present and enjoy this time, as children grow quickly. To understand this more clearly, remind yourself from time to time: this too shall pass. Both the challenging and beautiful moments will pass. Awareness of the transience of everything gives strength in difficult moments and brings more presence in good moments.

## NECESSARY PHONE NUMBERS

**Midwife helpline 12252** Call if you need advice on pregnancy, breastfeeding, women's and baby's health. All family members can call, calls are answered 24/7.

**Family doctor's advice line 1220** Call if you have questions about minor health concerns, if your family doctor is unavailable or if you need a consultation about your own or your loved one's health. Calls are answered 24/7.

**Emergency number 112** Call if a health problem or accident requires an ambulance dispatch. Calls are answered by emergency dispatchers at the emergency response centre. Available 24/7.

**Poison information 16662** Call if you need information about poisoning situations caused by household chemicals, pesticides, insect repellents, fertilisers, cosmetics, medicines, drugs, mushrooms, plants, alcohol, poisonous gases or bites from poisonous animals. Available 24/7.

**Tallinn Children's Hospital helpline 1599** Call if you need advice from an experienced paediatrician. Calls are answered every day from 08:00-22:00.

**Health Insurance Fund customer service +372 669 6630** Call if you have questions about healthcare and health insurance. Calls are answered from 8:30-16:00 Monday to Thursday and 8:30-14:00 on Friday.

**Women's helpline 1492** An anonymous advice line for women seeking protection from violence and wanting to discuss possible ways to end an abusive relationship. You can ask for advice 24/7.

## USEFUL WEB ADDRESSES

### **Estonian Midwives Association's website [perekool.ee](http://perekool.ee)**

provides reading material on everything related to pregnancy, childbirth, baby care, child development and family life.

**[Ammaemand.org](http://Ammaemand.org)** provides information about midwife care in Estonia as well as information on home births and a list of midwives who provide home birth services.

**[Tervisekassa.ee](http://Tervisekassa.ee)** offers information about health insurance, monitoring a child's health and benefits related to children.

From the subpage [tervisekassa/trukised](http://tervisekassa/trukised), you can download a variety of informational materials for free, such as "Postpartum recovery" and "Postpartum depression."

### **Estonian Childbirth Support Persons Association's website [doula.ee](http://doula.ee)**

provides information about supported childbirth and a list of childbirth support persons (doulas).

**The website of the Estonian Childbirth and Breastfeeding Support Society [siet.ee](http://siet.ee)** offers practical information about breastfeeding and you can also find a list of lactation consultants by county.

**[Suukool.ee](http://Suukool.ee)** provides information and materials on how to keep your and your child's teeth healthy.

**[Sotsiaalkindlustusamet.ee](http://Sotsiaalkindlustusamet.ee)** offers a comprehensive overview of family benefits and allowances.

**[Rahvastikuregister.ee](http://Rahvastikuregister.ee)** allows you to register your child's birth and choose a name for your child. You can also do this at your local city or municipality government office.



Congratulations, you are having a baby! With the birth of a baby, parents are also born. It takes so little to be a good parent: providing your child a safe home, nutritious food and love, understanding their needs and responding to them with care. How exactly to do this is something you will learn through daily practice.

But no matter how much practice you get, you will still encounter situations where you need to ask for advice. If you are hesitating whether to ask for advice or try to manage on your own, be sure to ask! You do not have to know everything. Midwives, lactation consultants, psychologists, obstetricians, paediatricians and family doctors want the best for you and your baby. We have collected some of their experience and knowledge in this guide. You can find additional information about preparing for the birth of a child and becoming a parent on the Estonian Midwives Association's portal [perekool.ee](http://perekool.ee).

