



# **CRYOS INTERNATIONAL**

Cryos International is the world's largest sperm and egg bank, offering delivery to over 100 countries. With more than 30 years of experience, and a large variety of carefully selected donors of diverse ethnicities and phenotypes, our goal is to guide you on your path to parenthood with personal and professional counsel. Our vision and purpose is to help others fulfill their dreams of having a child, and we are proud to have achieved the industry's highest number of registered pregnancies worldwide.

To Cryos, it is personal.

# TABLE OF CONTENTS

Foreword	
Signs of early pregnancy	
Diet and pregnancy	1
Development of baby and body during pregnancy_	1
Preparing for a baby	_2
The three stages of labour	2
The first weeks after giving birth	3
Breastfeeding	3

# **FOREWORD**

Julie is a trained midwife and a part of the Cryos Customer Care team. She has six years of experience from several maternity wards and thus holds extensive knowledge on fertility, pregnancy, and birth.

This book was made to ensure the best support for our customers at Cryos and it contains various topics concerning maternity and pregnancy written by Julie.

Only the most essential knowledge has been included while more information and detailed explanations are to be found in blog posts on cryosinternational.com. However, you will also find links to the relevant posts in every chapter of the book.



# SIGNS OF EARLY PREGNANCY

Whether you are trying to conceive naturally or through fertility treatment, the time from ovulation until you can take a pregnancy test can seem unbearably long. It is natural to notice every single change in your body hoping to find early signs of pregnancy. But it is hard to determine whether the changes are a sign of early pregnancy, since the signs are different from one woman to another.

#### WHEN DO THE EARLY SIGNS OF PREGNANCY OCCUR?

The hormonal change in the body begins as soon as the egg is implanted in the uterus. Therefore, some women may notice early signs of pregnancy even before a pregnancy test will be able to show a positive result.

If you have started fertility treatment it is important to wait until 14 days after ovulation to get tested, since the trigger shot you receive to accelerate your ovulation contains HCG and can therefore show a false positive pregnancy result.



TENSION IN THE BREASTS

One of the typical signs of early pregnancy is that the breasts can feel tense, sensitive, or sore. The body is preparing for the upcoming milk production by increasing the hormones progesterone, oestrogen, and prolactin.

A very early sign, which may occur as soon as the egg implants in the uterine wall is implantation bleeding. This often occurs around a week before the expected period. A small amount of fresh blood will appear and then stop shortly after. It can cause worry since bleeding normally relates to having your period and therefore not being pregnant. Know that this is in fact a normal sign of early pregnancy.

SPOT
BLEEDING OR
IMPLANTATION
BLEEDING

MENSTRUA CRAMPS Menstrual cramps can also be an early sign of pregnancy. The cramps begin when the uterus starts to grow and the ligaments around the uterus begin to loosen. Just as with the implementation bleeding, this early pregnancy symptom can cause concern, as these pains usually lead to having your period. However, if the pregnancy has already been confirmed and you do not experience bleeding, there is no need to worry about this.



One of the most common signs of early pregnancy is nausea and vomiting. This will often begin as soon as the HCG level in the blood starts to rise. The worst nausea often occurs when your blood sugar is low – usually when you wake up in the morning. Pregnancy-related nausea is often worse in the first trimester (the first 3 months of pregnancy) after which it decreases. Although nausea and vomiting can be extremely unpleasant, it is not harmful to the baby.

In the early stages of pregnancy, it is normal to feel constipated and bloated. This has to do with the pregnancy hormone progesterone which causes the smooth muscle tissue to relax. Progesterone helps to prevent early labour by relaxing the uterine muscles, but unfortunately, it has the same effect on the intestinal system and bowel movements.

CONSTIPATION AND BLOATING



Fatigue is not just an early sign of pregnancy but will often be a factor throughout the whole pregnancy. The fatigue is caused by an increase in the number of pregnancy hormones as well as the fact that your body is now working extra hard to create a baby.



From the moment the egg implantation is successful, and the baby is beginning to grow. Your body will experience an increase in hormones, and it is normal to experience mood swings. This is one of the earliest signs that may occur immediately after the egg has been implanted in the uterus.

Heartburn and acid regurgitation often occur later in the pregnancy. The hormone progesterone causes the sphincter in the stomach to relax and thus makes the stomach acid easier to run back up the oesophagus.

**HEARTBURN** 

INCREASED SENSE OF SMELL AND TASTE One thing a lot of women notice early in their pregnancy is a change in their sense of smell. A stronger sense and intolerance towards certain smells is a clear sign of pregnancy. Some also experience that the sense of taste changes and that they get food cravings or suddenly cannot eat things that they used to like.

If you are expecting twins, it is normal that the pregnancy signs show themselves earlier than with a singleton pregnancy. This is due to the HCG level being higher in multiple pregnancies. You will your pregnancy.

EARLY SIGNS OF PREGNANCY WITH TWINS



# DIET AND PREGNANCY

When you get pregnant, you will probably learn that there are certain types of food you should avoid or limit. While this can seem frustrating, there are luckily more things you can and should eat.

#### **EATING HEALTHIER WHEN PREGNANT**

It is important to eat healthy and varied when pregnant. However, it is not necessary to eat for two as the body only needs an extra 300 kcal a day. A normal-weight woman needs about 2000 kcal a day, so the additional amount of energy that pregnancy requires is small.

#### **WEIGHT DURING PREGNANCY**

During pregnancy, you will naturally gain weight as the baby gets bigger and your body changes.

The extra weight is due to the baby, amniotic fluid, the placenta, and uterus, as well as increased blood volume and fat depots. Exactly how much weight you should gain is related to your weight and BMI before pregnancy.

See on the next page how much weight you should preferably gain during the entire pregnancy. The largest weight gain takes place towards the end of the pregnancy. During this stage, you may gain 500 grams a week.

# WHAT TO EAT DURING PREGNANCY

You must plan your meals, so you get all the extra protein, vitamins, and minerals your child needs.

#### YOU SHOULD EAT

- Meat, fish, and poultry
- Coarse grain products such as oatmeal, rye bread, crispbread
- Green and high fibre vegetables, such as broccoli, spinach, beans
- Fruit

#### **EAT FISH SEVERAL TIMES A WEEK**

Fish is great because it contains healthy oils and vitamin D, iodine, and selenium, among other things. You should eat at least 350 grams of fish a week, of which 200 grams should be oily fish.

#### VITAMINS AND SUPPLEMENTS FOR PREGNANT WOMEN

Food is the best source of the nutrients that both mother and child need, but some vitamins and minerals can be difficult to get in the recommended amount – even through a healthy and varied diet. Therefore, it is recommended that pregnant women take the following dietary supplements:

- 400 micrograms of folic acid from pregnancy planning to 12th week of pregnancy.
- 40-50 mg of iron from the 10th week of pregnancy and throughout pregnancy.
- 10 micrograms of vitamin D throughout pregnancy.
- 500 micrograms of calcium (if you do not eat or drink dairy products).
- Avoid vitamin A supplements in doses above 800 RE (a regular pregnancy vitamin pill is fine).

Dietary supplements cannot replace the nutrients that a healthy and varied diet provides you and should be a supplement to a healthy and varied diet. Calcium supplements are recommended for pregnant women who do not get enough dairy products.

Fibre containing products and dairy products inhibit the absorption of iron. Therefore, you should take iron supplements alone or with citrus fruits such as oranges, as these improve iron absorption.



## WHAT TO AVOID **DURING PREGNANCY**

#### **AVOID PREDATORY FISH**

Pregnant and nursing women should not eat large predatory fish as they can contain high levels of mercury. It is recommended that you eat a maximum of 1 regular can of tuna a week but avoid canned white tuna or albacore tuna. Eat no more than 125 grams of Baltic salmon a month, as it contains high levels of dioxins.

#### **RAW MEAT AND FISH**

When you are pregnant, you should avoid raw meat. Meat that has not been heated to at least 66° C for at least 3 minutes may contain toxoplasmosis, which can infect both you and your baby. Toxoplasmosis is caused by a parasite that is sometimes found in animal excrement and raw meat. If you wish to eat sushi, you must make sure that is has been frozen for 24 hours at minus 20 degrees, which in some countries is a legal requirement.

#### SOFT CHEESE

During your pregnancy, you should avoid soft cheese made from unpasteurized milk as it may contain the bacteria listeria.

#### LIVER

Liver and cod liver oil can contain large quantities of vitamin A which can harm your baby. Liver pâté and pâtés, in general, contain less vitamin A and are safe to eat.

#### COFFEE, TEA, AND COLA

You should not drink more than three cups of coffee a day and restrict your intake of other beverages which contain caffeine. Studies have shown that large amounts of caffeine can affect your child's growth negatively.

#### GINGER SHOTS AND SUPPLEMENTS THAT CONTAIN GINGER

Pregnant women are also advised to stay clear of ginger shots and supplements that contain ginger because it may be harmful to the fetus. However, you can still eat foods that contain ginger, as the amount of ginger will be small compared to ginger shots and supplements with ginger.

#### ALCOHOL, SMOKING AND MEDICINE

- **Alcohol:** If you drink alcohol during your pregnancy, your unborn baby will have the same concentration of alcohol in their blood as you. Alcohol is absorbed by your blood and passes through your placenta to the baby and is harmful to your baby's development. The recommendation is therefore that you should not drink alcohol when you are pregnant.
- Smoking: Your baby's development is affected if you smoke or are exposed to passive smoking. The harmful substances in tobacco smoke increase the risk of premature birth and low birth weight.
- Medicine: If you are being treated with medicines, ask your doctor whether you can continue the treatment while you are pregnant. Some medicines should not be taken while pregnant, whereas it is safe and important to continue taking others.





# DEVELOPMENT OF YOUR BODY AND THE BABY DURING PREGNANCY

## THE FIRST TRIMESTER

#### **BODILY CHANGES**

In the beginning of the pregnancy, the bodily changes are not that visible. Most women experience nausea, cravings, mood swings, and a heightened sense of smell, as mentioned in the article "Early signs of pregnancy".

#### YOUR BABY'S DEVELOPMENT

During the first trimester the baby undergoes an amazing transformation from almost nothing to a fully formed baby. The gender of the baby has actually already been decided when the sperm cell meets the egg. At first, the foetus' heart and lungs are developed as well as the brain, nerves, spinal cord, arms, and legs.

The baby will start to move inside the uterus but is yet to small for you to feel it. By the end of the first trimester between weeks 9-13, the baby is 4,5 centimetres long – the size of a plum. At this time the baby is developed enough for a fertility doctor to perform a nuchal translucency scanning, where the baby is examined for chromosome disorders and the date of birth is determined.

### THE SECOND TRIMESTER

#### **BODILY CHANGES**

In the second trimester your stomach starts to grow, and the baby bump often starts showing. As the baby grows bigger, you may experience that it becomes heavier, which for some causes body aches, such as back, abdomen or thigh pain. During the second trimester, you will start to feel the baby's movements. At first, the movement will feel like bubbles in the abdomen but later, when the baby grows, more like kicks. You should feel the baby's movements daily from week 24+0.

#### Other changes in the body may include:

- Nipple changes your breasts start preparing for breast feeding
- Round ligament pains often triggered by movement
- Stretch marks on your abdomen, breasts, or thighs
- · Patches of darker skin, often in the face
- Swelling of the ankles, fingers, and face
- Frequent urination
- Braxton Hicks contractions

#### YOUR BABY'S DEVELOPMENT

During the second trimester, the baby's appearance continues to grow as the nails, eyelashes, and eyelids are forming. It is also during this period, where the genitalia and hearing is developed. In the end of the second trimester, the baby starts to have a regular sleep/wake cycle and the hair begins to grow.

Your baby is now able to respond to stimuli like light or sound and will start practicing their breathing and drink from the amniotic fluid as

well as sucking on the hands. At this stage the baby is about 30 centimetres long and weighs about 900 grams – about the size of a cauliflower.



#### **BODILY CHANGES**

The baby is growing fast and gets bigger every week. As the stomach grows, you may become more troubled physically. Some of the discomforts you may have experienced in the second trimester will probably continue during the third trimester as well. Since the baby takes up more space in your abdomen, you may experience that breathing becomes more difficult and that you need to go to the bathroom more often. This is completely normal, since the baby takes up a lot of space and puts pressure on your organs.

#### Some of the new bodily changes include:

- Shortness of breath
- Leaking of pre-milk from the breasts
- Trouble sleeping
- Belly button may pop out
- Extra fluid in the body which can result in swollen legs, feet, and hands etc.

#### YOUR BABY'S DEVELOPMENT

During the third and final trimester one of the most important missions for the baby is building and reserving body fat so it is ready to face the world. Most of the functions in the baby's body are fully developed. Your baby will gain up to 200-250 grams every week.

As you are moving closer to your due date, the baby will move lower into your abdomen and may turn into a head-down position to get ready for birth. The baby's movements will change from kicks into rolling movements since the space in the uterus gets more limited. Your baby may also get hick-ups which you will feel as small rhythmical kicks. In the end of the third trimester, the average baby is about 51 centimetres and weighs between 3500 and 3700 grams.



# PREPARING FOR A BABY

Before you know it, your baby will be here, and it can be exciting and numbing at the same time. Therefore, it is a good idea to prepare. The best way to prepare for a baby is to relax and use the last time you have for yourself to listen to your own needs and your body. You often hear people say that you should get some rest while you can because you will need it. It is not possible to sleep in advance, but when heavily pregnant you are often very tired and exhausted. Therefore, you should try to relax and enjoy the time you have for yourself or together with your partner. Before you know it, your baby will be here, and preparing for it is a good idea.

#### THINGS YOU SHOULD PREPARE PRIOR TO THE BABY ARRIVES

- Prepare where your baby should sleep: As it is not safe to fall asleep with
  your baby lying on top of you it is a good idea to have a cradle for the
  baby to be placed.
- **Prepare food:** Prepare meal for the freezer and ask friends for help to get through the first weeks after birth.
- Nesting: Prepare for the baby at home. Wash the baby clothes, buy diapers, and prepare a changing station.
- **Install the car seat:** It is a good idea to install the car seat a few days prior to labour so that you can get home safely with your new baby.
- Learn about breastfeeding: It is not always easy to breastfeed and therefor you should prepare for it (read more on page 37).
- Checklist for labour (hospital bag): When you are due to give birth, a
  good idea is to prepare a hospital bag with all the stuff you need for the
  birth like clean clothes, breast pads, clothes for the baby and stuff that
  helps you relax.

### YOUR PARTNERS' ROLE

Your partner has an important role, once you become parents. It is easy for the partner of a new mother, to feel left out or neglected as all energy is spent on the newborn baby. It is important to make your partner feel seen, heard and recognized, as well as being aware of them having an active role in getting to know the child. Being parents is all about togetherness. The more you share, the more you get the feeling of togetherness which can benefit your relationship.

During the first time after birth, it can be difficult to find the desire and energy to be intimate with your partner as you, after the birth, feel completely engrossed in the baby and all the new changes. Intimacy with your partner can therefore seem like an unmanageable requirement. If you breastfeed, your body will be filled with oxytocin, the same hormone that is present when you are intimate with your partner. Therefore, some women experience that their need for intimacy is met when they breastfeed or lie skin to skin with the newborn baby.

Therefore, it is normal that your partner feels jealous, powerless, or envious of you and the baby. Your partner does not necessarily get the same needs met as you and the need for togetherness and intimacy is therefore naturally bigger. Try to prioritize giving your partner some of your energy and time. It does not have to be by having sex, it can also be from kisses, hugs or cuddling.





# PRACTICE YOUR BREATHING EXERCISES BEFORE LABOR

Breathing is the foundation of how to cope with labor pains. There are many different breathing techniques which can be used during your birth and only you know which technique works for you. Our recommendation is, that you find a technique that is suitable for you and start to practice 6-8 weeks before your due date. That way you are ready and know how to react when the contractions slowly start.

If you have not prepared any breathing technique in advance, our advice is to breathe in deeply through your nose and exhale slowly through your mouth throughout the whole contraction. Try to relax your body, especially your forehead, hands, and shoulders. If the body tenses up during contractions, it can aggravate the pain and can eventually drag out the birth. It is super important to stay focused through calm breathing and to keep the body completely relaxed – even though it can be extremely difficult.

# THE THREE STAGES OF LABOUR

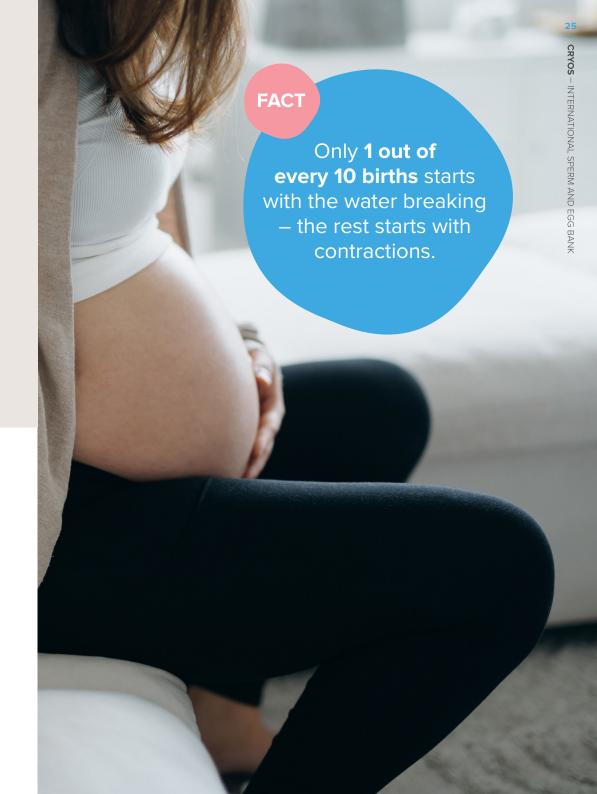
Giving birth to your child is a huge experience and something that you will always remember. Although the female body is built for childbirth, it is not easy and straightforward. Before giving birth, you must prepare yourself in the best possible way by understanding the three stages of labour. The birth consists of three stages that can be divided into five phases.

### THE FIRST STAGE OF LABOUR

#### **PHASE 1: EARLY LABOUR**

Early labour is the first phase of childbirth. For some women, this phase is short and for others it can last for many hours - sometimes days. Both ways are completely normal. Early labour begins with the first real and regular contractions and continues until the cervix is approximately four centimetres open. Only about 10% of all births start with the water breaking and contractions beginning afterwards.

Your contractions will typically be mild (but painful) and the breaks between the contractions may be long and irregular. In the early labour, you are usually at home in familiar and quiet surroundings, where you can use pain reliefs such as hot water, massage, or a heating pad on the lower back or front.



#### **EXAMINATIONS DURING THE EARLY LABOUR**

When the contractions become more intense, more painful and show themselves regularly with three to five minutes apart (from one contraction starts to the next contraction starts), it is time to contact your midwife or doctor to get a check-up.

#### The check-up will include:

- · Checking your baby's heartbeat
- Determining your contractions duration and intervals
- An external examination of your belly
- · Measuring your blood pressure
- Examining a urine sample
- Internal examination to examine how much your cervix has dilated if the amniotic membranes are intact and how the baby's head is rotated.

#### **PHASE 2: ACTIVE LABOUR**

Active labour happens when the contractions intensify, and the cervix dilates from 4 to ten centimetres. The contractions last about 60-90 seconds and are two to three minutes apart. As the contractions become more intense, it is a good idea to concentrate on your breathing as breathing techniques can help you cope with the labour pains. Depending on your birth plan, you will either go to the hospital during this phase or stay at home for a home birth. It is also in this phase you should consider getting pain relief if you wish to make use of it. There are different types of pain relief you can receive during childbirth. You can choose between natural and medical forms of pain relief. It may be a good idea to familiarize yourself with the types of pain relief your midwife or the hospital offers before giving birth and consider what you might prefer.

#### PHASE 3: THE TRANSITION PHASE

The transition phase starts when your cervix is completely open (ten centimetres) and lasts until the baby's head is in place on the pelvic floor and you need to start pushing. In this phase, the baby's head moves down through the birth canal and at the same time it must rotate correctly. This can take anywhere from a few minutes to several hours. You may also experience an incipient urge to push as the baby's head moves further and further down through the birth canal. Do not actively push yet, as it may eventually prolong the second stage and exhaust both you and the baby.

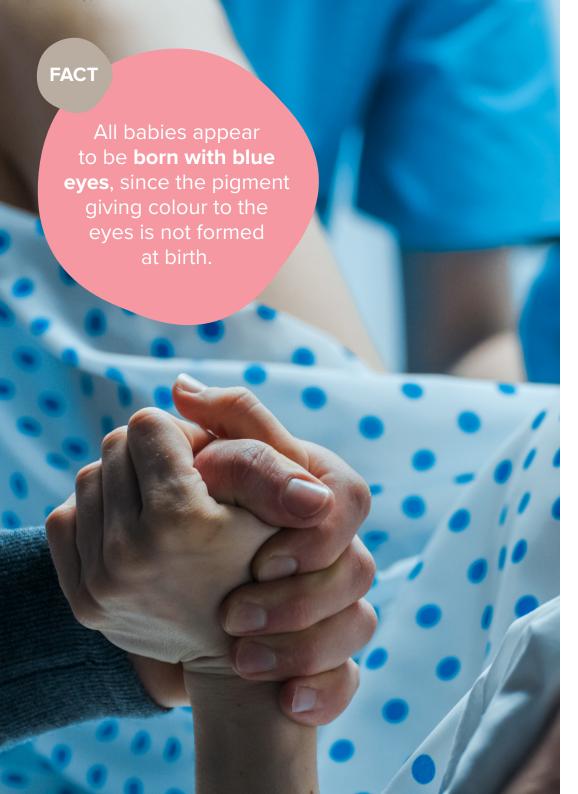
### THE SECOND STAGE OF LABOUR

#### **PHASE 4: CHILDBIRTH**

This phase begins when your cervix is fully dilated, and the baby's head is on the pelvic floor. You are now ready to push. Many women experience a huge need to push and have trouble holding back. For some women it may seem like a great feeling to finally be able to do something active during labour – even if it hurts. This stage can last from a few minutes and up to two hours. For a first-time mother, pushing for about an hour is normal.

Your midwife will guide you in how to push, when to push and finally when to gasp. It is very important that you and your midwife have a good collaboration at this stage. When the midwife tells you to gasp, it means that you are close to giving birth to your baby's head. When the head is born, the hardest work is done, and the rest of the body is born either in the same contraction or in the next with a single push. It is a huge moment when the child is born, and the pain disappears.





### THE THIRD STAGE OF LABOUR

#### PHASE 5: GIVING BIRTH TO THE PLACENTA

After giving birth to your child, the afterbirth follows, and it is time for the placenta to be born. For most women, giving birth to the placenta is completely uncomplicated and painless. The midwife may ask you to push or cough, after which the placenta will be quickly released. After you deliver the placenta, your uterus should contract and get very firm. You'll be able to feel the top of it in your belly, around the level of your navel.

Then it is time to check if you have ruptured and need stitches. Up to 80% of all first-time mother's rupture to some degree, but far from all need stiches. Most women have uncomplicated ruptures and are treated in the delivery room while holding their baby.

#### THE PARTNERS ROLE DURING CHILDBIRTH

In many ways, it can be difficult to be the partner to a woman giving birth. Seeing your partner in pain for many hours or maybe days without being able to take away the pain can be extremely hard and make you feel powerless. Some women need their partner very close, and others would rather cope with the contractions themselves. Both are perfectly okay.

During labour, the partner's job is to fulfil every need you have, whether it is massage, cold cloths, something to drink or a hand to squeeze. Again, it is a good idea to talk about your expectations before the childbirth.

# THE FIRST WEEKS AFTER GIVING BIRTH

During the first weeks after giving birth, your life will be a mix of emotions and changes. You may experience overwhelming feelings of doubt, but most importantly happiness. You have created and given birth to a baby who is now dependable on you.

After giving birth, you will either spend the first few days at the hospital or at home. When you can take your new-born baby home depends on the procedure at the hospital, and whether it has been a complicated or uncomplicated birth.

#### **BODILY CHANGES**

Throughout the pregnancy your body changes and it will take some time for these changes to fade and in some cases they never completely disappear. In the first weeks you might still look pregnant as your uterus needs time to fully contract and the abdominal muscles have been separated. It will take a few weeks before your stomach looks reasonably normal. Over time, the stretch marks will diminish in colour and size.

#### **BLEEDING**

After giving birth, you will experience some bleeding, which will subside and become less during the next few weeks. You might experience clumps of blood, as it can clot inside the uterus. It might seem a bit scary and will often decreases after a few days. If bleeding continues or increases a doctor should be contacted.

#### **RUPTURES AND RISK OF INFECTION**

If you have had stitches, these will either dissolve on their own within weeks or they will need to be removed. Make sure to buy plenty of large sanitary pads that fit your pregnancy underwear. It is recommend putting sanitary pads in the freezer before birth – ice pads, wrapped in a piece of cloth or a sock, can have a soothing effect on the rupture.



#### **AFTER-BIRTH PAIN**

Giving birth is hard work, and you will be sore all over your body afterwards. Many compare childbirth to running a marathon, and you must expect that your body and mind are sore and exhausted in the following days. That is why, I can recommend you prepare for your baby before he/she comes to the world.

It is also common to have after-birth pains/belly cramps. After-birth pains are often worse if you have given birth before, and it is like the pain you feel during labour. It is, as with real contractions, the uterus that contracts. It is recommended to take both Paracetamol and Ibuprofen after the birth as pain relief.

#### **SKIN TO SKIN CONTACT**

Skin to skin contact has positive effects for both you and your baby as it will release oxytocin. This has a pain-relieving effect, that causes your uterus to contract, and helps to stimulate milk production. In addition, skin to skin contact increases the connection between parent and child, helps to stabilize blood sugar and the baby's temperature.

Skin to skin is a good opportunity to get to know each other and for you to learn how to read your baby's signals. In this way, your baby gets to know your scent and has free access to the breast, which is an important part of breastfeeding. In the beginning, it is also perfectly normal for your baby to spend most of the time sleeping. But he or she must also have periods of being awake and alert. The baby is not yet able to maintain eye contact and the eyes will flutter around. Eye contact will increase over the next weeks and is very important for a baby's development.

#### **TOILET VISITS AFTER GIVING BIRTH**

During the first days, it will most likely sting when peeing, no matter if you have ruptured or just had small tears. You can relieve some of the pain by using a rinsing bottle or a shower with lukewarm water and rinse while you pee. The first times going to the toilet, you might also be afraid that the rupture will burst and feel like things are out of place, however, try not to worry as it is not the case. It can give a better feeling to use toilet paper or a pad to support the perineum.

## SIGNS THAT YOUR BABY IS THRIVING

Interested in and wakes up for breastfeeding at least 6-8 times a day

A normal skin colour (not grey, pale, or very yellow) Calm most of the time and is not slack, restless, or constantly crying

Has at least
6 wet diapers
per day and has
stools that fit
the age



#### **YELLOW SKIN**

Most babies turn slightly yellow two or three days after birth. This is a sign of physiological jaundice, which occurs in about 60% of all babies but disappears on its own within weeks. If your baby is yellow in the eyes or on the body but not lethargic, there is no need to be concerned. If concerned, contact your doctor to have it checked. Frequent breastfeeding has been shown to reduce jaundice in babies.

#### THE UMBILICAL CORD

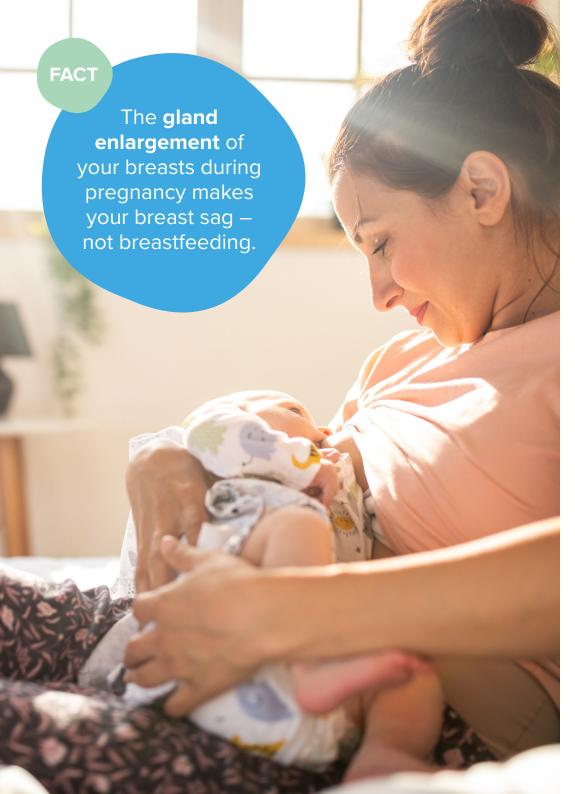
A small part of the umbilical cord remains in the belly button and will dry and fall off during the next few weeks. The remaining part of the umbilical cord might smell a bit, but it is important to keep it clean and dry and not to place the diaper tightly over the belly button. Either place it loosely over or folded under. Blood may appear as the umbilical cord detach and can be wiped with a cotton swab with water.

If you bathe your baby before the umbilical cord is gone, it is important to wash the face with fresh water to avoid the risk of causing an eye inflammation.

#### **HEAT RASH AND HORMONAL SPOTS**

Your baby might have either hormonal spots or heat rash. Hormonal spots are completely normal and caused by hormones from the mother. Heat rash can occur if the baby has been wrapped too warm. Try feeling in the neck of your baby – if it is warm and dry, your baby is comfortable. If it is hot and sweaty, your baby is too hot. Babies have difficulty regulating their own temperature and are easily affected by the environment. It is always important to be aware of your baby's temperature, also during skin-to-skin contact.





# BREASTFEEDING

Many pregnant women have a desire to breastfeed their baby after it is born, as breastfeeding is often associated with togetherness, and attachment to the baby. Breastfeeding is physically possible for most women regardless of their breasts' size and physical appearance, but it is something that you need to learn and practice together with your baby.

#### **BREASTMILK**

Your breastmilk is specifically designed for your baby. It adapts to your baby's needs and contains all the nutrients and fluids your baby needs. Because the breastmilk adapts to your baby's needs, it contains all the important vitamins, minerals, and antibodies that your baby needs. The first milk that appears right after birth is called colostrum. Colostrum is a thick, yellowish liquid that has a high protein content and contains antibodies that help strengthen your baby's immune system right from birth. The colostrum comes in small amounts and will be replaced with the real milk after a few days. The real breastmilk is thinner and whiter in colour than colostrum. You will be able to feel the difference in your breasts when the real milk starts to flow. Your breasts become larger, heavier, and the blood vessels become more visible. It can be difficult for your baby to get a proper grip around the nipple because the breasts become overfilled and hard. Therefore, it may require extra work in the beginning, but when the amount of milk has adapted to your baby's needs it will become easier.

If it is too difficult for the baby to get a proper grip around the nipple, it may be an idea to hand-pump some of the milk, so the breast gets softer. Remember, however, that you must not stimulate too much when pumping, with either hand and breast pump, as it may increase your milk production. Breast milk acts as supply on demand. The more the baby sucks or you pump out, the more milk you produce. In that way, you should end up producing exactly the amount of milk your baby needs.

#### WHAT HAPPENS IF THE BREASTMILK DOES NOT COME?

If the breastmilk does not come within 3-4 days after the birth, it is important to actively do something to increase the production. A reason for the missing milk production could be that your baby is using the wrong sucking technique or that you have started breastfeeding too late. To give the milk production the best chances of success, it is important to start breastfeeding within six hours after birth. Using breastfeeding pacifiers can also affect milk production, as the breast is not stimulated sufficiently. It is often recommended to use a breast pump along with the use of breastfeeding pacifiers to help increase the milk production.



## OTHER REASONS WHY THE MILK DOES NOT COME WITHIN 3-4 DAYS CAN BE:

- Physical or mental stress
- Large blood loss after birth
- Complicated birth or caesarean section
- The baby was not placed on the breast within six hours after birth
- The mother suffers from PCOS
- Metabolic disease in mother
- Breast surgery

If the sucking technique is wrong, it is important to correct it as fast as possible. It may be necessary to seek help from a breastfeeding counsellor or a midwife, who can help get the baby's mouth in the right position around the nipple. In addition, it is recommended to start pumping to increase your milk production. Pump both breasts after breastfeeding to make sure the breasts are stimulated and that the baby receives enough milk.

Breastmilk can be divided into thin and thick milk. Once the milk has been produced and is stored in the mammary glands, it will "separate" so that the fat particles stick to the inside of the mammary glands and the liquid milk in the glands contains a lower amount of fat. When the milk starts to run, the "thin milk" with a lower fat percentage will come first, followed by the thick milk with a high fat percentage as the mammary glands are getting emptied.

You can distinguish the thin and the thick milk on the colour. The thin milk will be milky white, with a bluish tinge. This is due to the low-fat percentage. The thin milk can be compared to skimmed milk. The thick milk has an off-white colour and can be compared to whole fat milk.

For your baby to gain weight, it is important that he/she gets the fat, protein-rich milk that comes at the end of the breastfeeding. Therefore, it is important that your baby empties one breast during the meal before switching to the other breast. Your baby needs to work harder to receive the thick milk, and you may be able to feel your baby's sucking technique changing along the way.

#### **HOW OFTEN SHOULD MY BABY EAT?**

There are no specific rules for when and how long your baby should breast-feed. But in general, a new-born baby should eat at least eight times a day. The baby should have free access to the breast and should be offered breast-feeding when he/she shows signs of hunger. Breastfeeding has many positive effects. It acts as comfort if the baby is restless, upset or just needs to be close to you. It is important never to deny the baby access to breastfeeding. Recent

studies show that new-borns' stomachs benefit from frequent breastfeeding and that breastfeeding every hour, or more is not unusual at all. A new-born's stomach is very small and cannot contain large amounts of milk. Frequent breastfeeding is therefore necessary. In addition, breastmilk is digested faster, and to keep blood sugar stable the baby will demand to breastfeed frequently. Frequent breastfeeding is therefore NOT a sign of too little milk or too little nutrition in the milk but just a sign of a healthy baby.

WHO and UNICEF also recommends that infants are fully breastfed until they are 6 months old and partially breastfed for 12 months or longer.

#### HOW DO I MAKE SURE THAT MY BABY GETS ENOUGH BREASTMILK?

During the first few weeks, the content in the diaper tells you whether your baby receives enough breastmilk. A minimum of five or six wet diapers a day and stools every day, is a sign of your baby thriving. After six weeks, your baby should continue to have heavy diapers every day. If your baby is fully breastfed, there may be up to two weeks between the stool diapers. This is due to breast milk being specially designed for your baby and the body therefore digests all the breast milk.

A lot of new mothers will at some point worry about their milk production and whether they have enough milk to feed their baby. For most women there is no need to worry, but for some this will cause them to stop breastfeeding.

#### THE SIGNS OF HAVING TOO LITTLE MILK ARE:

- Few wet diapers and few diapers with stools
- That the child is lethargic and passive
- The square fontanelle on top of the baby's head has sunk in
- Low weight gain or weight loss
- Lack of well-being

If you experience some of the signs above, I recommend that you consult a midwife or a breastfeeding counsellor. There are several measures that can be used to increase milk production.

The important thing is to get milk production started and send a signal to the brain about producing more milk. This can be done in many ways. One way is to lie skin to skin with your baby, as this helps trigger the hormones needed to produce milk. Offer your baby the breast as often as possible and change side frequently so that the breast is stimulated to produce more milk. It is also important to mention that soft breasts are not necessarily a sign of too little milk but rather that the milk has adapted to the right amount for your baby.

#### CAN I CONTINUE BREASTFEEDING WHILE HAVING COVID-19?

Yes. In fact, the National Board of Health and the WHO recommend that you continue to breastfeed despite being infected with Covid-19, as the benefits of breastfeeding outweigh any risks. It is important that you do NOT let yourself be isolated from the child and continue to give the child the closeness and security he/she needs.

No studies have shown Coronavirus in breast milk in breastfeeding mothers. Therefore, there is no reason to be nervous about or to stop breastfeeding due to the risk of Corona infection.

It is also recommended to get vaccinated for Covid-19 while breastfeeding. None of the WHO-approved vaccines currently being used contain the live virus, so there is no risk of passing the virus to your baby via breastmilk.





#### **CRYOS INTERNATIONAL - DENMARK APS**

Vesterbro Torv 3, 5. DK-8000 Aarhus C Denmark

Website: cryosinternational.com Email: dk@cryosinternational.com Phone: +45 8676 0699 Go to our website by scanning the code with your mobile camera



