

# Pregnancy

Dear (future) parents,

You have one of the volumes of The Growth Guide in your hands. This volume is meant for all those who are pregnant. If you have been pregnant before, you may have fewer questions than when this is your first time. Even so, you may still find the information interesting, because we keep updating it all the time and you may have new questions. The Growth Guide helps you make the right choices for your child and his development.

The Growth Guide consists of seven practical booklets:

- Planning for Parenthood
- Pregnancy
- Breast-feeding
- Post-natal period
- 0-4 years old
- 4-12 years old (in Dutch only)
- Adolescence (in Dutch only)

These booklets contain information on conception and pregnancy, as well as on the development, care and parenting of your child during the various phases of his life. The Growth Guide can also serve as a guidebook for the many major and minor doubts or concerns which all parents face every day. The conveniently arranged list of contents and index make it easy to find the subject you want to know more about. Every section also offers you space for your own notes and for filing vaccination documents and messages, notes or reports from the agencies you will be dealing with.

You may perhaps want to add an ultrasound result or photos. That is possible. In this way, you will have a precious overview of your child's development from the very beginning.

For the ease of reading, we have decided not to use both 'he' and 'she' continually in the text when talking about the paediatrician, the doctor or your child. The paediatrician, the GP and the gynaecologist will therefore consistently be referred to as 'she' or 'her' and your future child as 'he' and 'him'.

### We wish you happy reading

Since 2012, every municipality has its own Youth and Family Centre (CJG). Depending on where you live, it may have a different name, like 'Jong-in', 'Oké-punt' or 'OKC'. (Foster) parents, future parents and carers are welcome at the CJG with questions concerning their children's health, parenting and development. Usually, the CJG will have a website with information on training courses, opening hours and local news. Look for: [www.cjg <your municipality>](http://www.cjg <your municipality>)



#### Tip

The booklets on Planning for Parenthood, Pregnancy, Breast-feeding, Post-natal period and 0-4 years are available in English. Go to [www.groeigids.nl/bestellen](http://www.groeigids.nl/bestellen) for your order

This Growth Guide belongs to

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Due date

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Prenatal care from

Other important addresses:

(for example, well-baby clinic, parenting support centre,  
maternity centre)

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## If you speak little or no Dutch

If your Dutch is not yet good enough, it may be a good idea to take somebody with you for the translation, preferably somebody who you feel free to share confidential information with. A child is not a suitable choice.



### Tip

You will find the Growth Guide information on [www.groeigids.nl](http://www.groeigids.nl) or on the website of your c/jg (well-baby clinic). Go to [www.cjg.nl](http://www.cjg.nl) for that and more information.



You can set up a digital file for your child at [www.groeigids.nl](http://www.groeigids.nl) or by using the GrowthApp. You can print your child's own booklet, including a growth curve, a list of vaccinations and other milestones in your child's life.

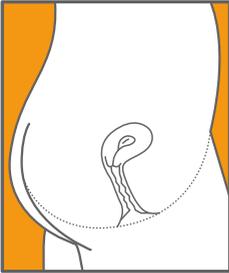


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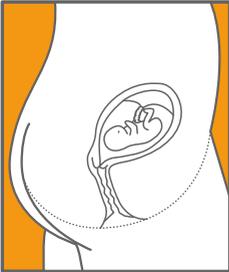
**The quickest way to find information?  
Look in the index!**

## Your unborn child: its growth and development



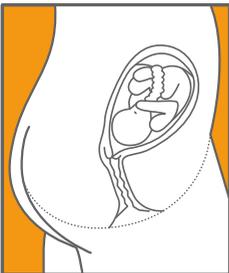
### 6 weeks

Pregnancy is considered to start on the first day of the last menstrual cycle, although fertilisation of the embryo takes place two weeks later. According to this calculation you are 6 weeks pregnant while the unborn child is only 4 weeks old. The heart, stomach, intestines and brain have started developing. The heart has started beating. The size of your child is now about 1 centimetre.



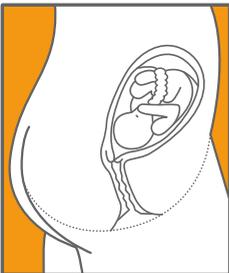
### 12 weeks

Your child is physically complete; he is growing and developing, moving arms and legs, although you cannot feel it yet. The child has grown to about 8 cm and has now started to swallow and secrete the amniotic fluid.



### 16 weeks

The child is now about 17 centimetres and weighs approximately 120 grams. Using a special device, you can hear his heart beat. The ears are now developing and are picking up body sounds from the mother.

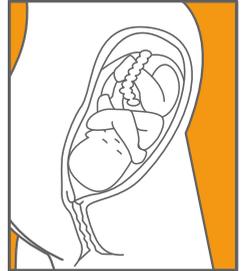


### 20 weeks

The child has grown to between 20 and 25 centimetres and weighs between 225 and 350 grams. He reacts to outside sounds. The movements can now be felt. If this is your first pregnancy, it may take you another 3 weeks or so to recognise this feeling.

### 24 weeks

Your child is now about 30 centimetres and weighs about 600 grams. Babies too can have hiccups: when they do, the feeling is unmistakable, like a constant gentle tapping in your stomach.



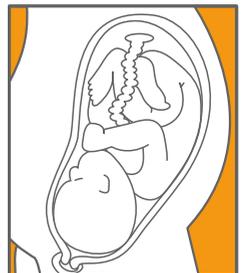
### 28 weeks

Up to 35 centimetres and weighing more than 1 kilo. A regular rhythm of sleeping, waking and sucking on a thumb. Your child is learning to open his eyes.



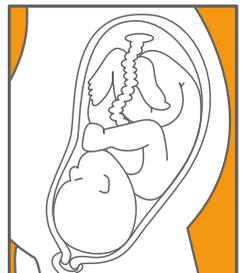
### 36 weeks

45 centimetres and almost 2,5 kilo's. From now on, the weight will increase by 30 grams per day. The baby's usual position is head down. At this age, the baby can react to familiar voices.



### 40 weeks

Normally, pregnancy ends between weeks 37 and 42. This is the time that most children are born. At birth, the child will usually weigh between 3 and 4 kilo's and be around 50 centimetres.



*For more information on the Pregnancy calendar, go to [knovzwanger.nl](http://knovzwanger.nl)*



# A baby on the way!

You are pregnant; there is a baby on the way. Perhaps you have not noticed anything yet. Or maybe you already feel quite different. Your body adjusts immediately to the new situation, but it may take some getting used to and some adjustment, both for you and your partner. Besides feeling happy and proud, you may be uncertain. The midwife or the gynaecologist will help you in the coming months to prepare for delivery and to begin parenthood full of trust and confidence. In this volume of the Growth Guide we try to give you some added support and information.

## Communicating with the baby in your tummy

There are several ways for you, mother and father, to communicate with your unborn child. It may be hard to imagine, but research proves that newborn babies immediately recognise their mother's voice. It helps your child's development if both parents talk and/or sing songs to their unborn child regularly throughout the pregnancy. Many parents enjoy doing this, and so will other children in the family. By touching mother's tummy, you can caress the baby. You get to know a little bit about the body and the temperament of your child. You will be surprised to experience how your child reacts, by moving around or by sudden tranquillity, to your gestures and your voice. He is already talking to you. Communication with your unborn child is really possible.

Talking, touching, eye contact and attention continue to be important once the baby is born. By beginning before birth, you are forming a pre-natal bond, which will help your child throughout its further development

Go to [www.lichaamstaal.nl](http://www.lichaamstaal.nl) and [www.babywerk.net](http://www.babywerk.net) for further information.



### **Getting to know your baby**

Go to [www.groeigids.nl/film](http://www.groeigids.nl/film) and find out about information sessions, films on breast-feeding, giving birth and other ways to get to know your baby.

# Visits to the midwife or gynaecologist

## Midwife or gynaecologist?

In the Netherlands we differentiate between pregnancies with and without a medical indication. If your pregnancy progresses normally and you have no medical problems, the midwife is responsible for your prenatal care and will assist you during delivery and afterwards (post-natal care). If there are complications, or if there is a possibility that complications may develop you will then, in general, have your baby in a hospital under the care of a gynaecologist. Wherever applicable in this booklet, you can substitute 'midwife' for 'gynaecologist.'

## Giving birth at home or in hospital

If there is no medical indication, you are free to decide whether to give birth at home or in the hospital. In the event of complications during pregnancy, you will generally give birth in hospital.

In 'normal' pregnancies your own midwife will assist you in the hospital or the natal clinic. In the event of complications, the midwife will call for a gynaecologist. For home births, the procedure is the same. Talk to your midwife about what you feel the best place is to give birth. You may of course always change your mind, if there are no medical objections.

## Create your own ambiance

You can create your own atmosphere, either at home or in the hospital. You can have music in your (bed)room, warm lighting and anything else that will make you feel at ease and relaxed, so as to create the best possible conditions for giving birth.

A growing number of hospitals have single-room delivery suites. Every effort will be made to create a comfortable and familiar environment. 'Regular' delivery rooms offer many facilities too.

To create your own atmosphere, you could bring your own music, photographs and electric candles. In the hospital, you can put the baby clothes or carrycot in plain view. When you are having a difficult time, you can look at them and find new energy!

It may be a good idea to write a 'birth plan' during your pregnancy, listing the points to be remembered at the time of giving birth. More on this on page 64.

## The first visit

During your first appointment with the midwife or gynaecologist, you will be asked a number of questions regarding your general health, the health of your partner and both families and about your lifestyle. This is done to determine which type of care is best in your situation.

The midwife or gynaecologist takes your blood pressure and

checks the size of the uterus. If you are three months pregnant, she will try to hear the heartbeat of the baby. There is time to ask questions and tell her things about your self. By writing down your questions and remarks in advance, you will make sure not to forget anything when you visit the midwife or gynaecologist.

### **Is this your first pregnancy?**

If this is not your first pregnancy it is important for your midwife to know how the previous pregnancies went. Miscarriages and abortions also count as pregnancies.

### **How far along are you?**

When determining how far you are, the calculation starts on the first day of your last menstrual period. Conception took place approximately two weeks after this first day. If, according to the calculation, you are four weeks pregnant, the foetus is then approximately two weeks old. A full term pregnancy lasts between 37 and 42 weeks. It is important to know when your last period was, whether or not it was normal and when you stopped taking the pill or using the coil. The midwife will send you for an ultrasound scan to determine exactly how far you are in your pregnancy.

### **The first ultrasound scan**

Several ultrasound scans will be made during your pregnancy. The first in- or external one is usually around the 10th week of

the pregnancy and is carried out to determine how far your pregnancy is. This ultrasound is therefore called the dating scan.

### Your health

The midwife wants to know a great deal about your general health. Based on your answers, she can determine if there are additional health risks for you and your baby. If you have questions about this, do not hesitate to ask your midwife.

### Feeling depressed?

It is perfectly normal for you to feel different during pregnancy. If you are feeling down or if you worry about your feelings, talk to your midwife. If you have been depressed before, tell her about this too. If you are encountering mental problems during your pregnancy, it is important to discuss these with your midwife. Hormone mutations may aggravate a temporary downturn into a more permanent depression. You will find more information in "Het beste voor mij en mijn baby" (in Dutch), which you can order through [www.trimbos.nl](http://www.trimbos.nl), reference 'baby'.

### Heredity

The midwife will want to know if you, your partner or either of the families have any hereditary diseases, hereditary conditions, congenital defects, and if you are related to each other.

Some diseases or defects can be detected in your baby at an early stage in the pregnancy. This test is called prenatal (or antenatal) screening. If your baby has an increased risk of a hereditary disease, the midwife will give you information about the test. Some examples of hereditary diseases: cystic fibrosis, muscle diseases, etc. See [www.strakswangerworden.nl](http://www.strakswangerworden.nl) (also in English) [www.zwangerwijzer.nl](http://www.zwangerwijzer.nl), [www.erfelijkheid.nl](http://www.erfelijkheid.nl) for more information.

### **Blood tests**

Your blood will be sampled and tested in the first weeks of your pregnancy. If the test shows up bacteria, viruses and other harmful substances in your blood, treatment can often prevent harmful consequences to your baby.



## What does the standard test examine?

**Blood Type:** In case you need a blood transfusion, it is important to know whether you have blood group A, B, AB or O.

**Rhesus factor:** Whether you are rhesus negative or rhesus positive is a question of heredity just like, for example, the colour of your hair. If your blood is rhesus c or D negative, a further test may be carried out. Go to [www.rhesusprik.nl](http://www.rhesusprik.nl) for more information.

**Other antibodies:** If antibodies are found in your blood, the midwife will discuss with you the pro's and cons of further testing.

**Haemoglobin level (Hb):** This test will be done several times during your pregnancy. The Hb level in your blood may indicate a degree of anaemia (iron deficiency). This condition is almost always easy to treat and the treatment is not harmful to the baby.

**Hereditary anaemia** If you are (originally) from a country around the Mediterranean (Turkey, Greece, Morocco, Italy etc), the Middle East or parts of Asia (India, Indonesia) or Africa, a test may be necessary to determine whether you are a carrier of hereditary anaemia (eg sickle cell anaemia or thalassemia). The inconvenience for the carrier is often only limited, but iron therapy will not cure this form of anaemia. If both parents carry

this form of hereditary anaemia, the child may develop a serious form of anaemia. If there is a carrier in your family or that of the father, make sure to inform the midwife.

Go to [www.zwangernu.nl/bloedarmoede](http://www.zwangernu.nl/bloedarmoede) for more information.

**Hepatitis B:** This virus causes an infection in the liver that sometimes progresses unnoticed. If a person becomes a carrier of the hepatitis B virus after being infected, he can pass on the infection to others. If a mother carries the virus, it will not harm the baby during the pregnancy.

During delivery however, the baby can come into contact with the virus and be infected. If you are a carrier of the B-virus, the midwife can tell you how you can best protect your environment against infection. Immediately after birth your baby will be vaccinated by the midwife and later by the Municipal Health Service [GGD].

**German measles (Rubella)** If you have had measles before or if you have been vaccinated, you will be safe from this disease. If you have not had the vaccination, you can ask for a blood test. If you have no antibodies in your blood, a rubella infection during pregnancy may cause congenital rubella syndrome. Therefore, a BMR (mumps, measles and rubella) vaccination is essential at an early age.

**Glucose** Sometimes, your blood will be tested for glucose. If the levels are too high, this may indicate a form of (gestational) diabetes, for which treatment is readily available.

**Lues (syphilis)** This is a sexually transmittable disease (STD). If the mother carries the infection, she will be given antibiotics to prevent the infection being passed on to the baby. Go to [www.soa.nl](http://www.soa.nl)

**HIV:** This is the virus that can cause AIDS. A pregnant mother can pass on the infection to the baby. For that reason, an HIV test at the beginning of pregnancy can be important. Immediate medical treatment may prevent the passing on of HIV to the baby. If the future mother is a carrier of the HIV virus, she will be referred to a specialised HIV centre. The baby should not be breast-fed. For more information, go to [www.gezondebaby.nl](http://www.gezondebaby.nl) and [www.hivnet.org](http://www.hivnet.org)

**Other sexually transmittable diseases** If you have, or suspect you may have, another type of sexually transmittable disease, you should make sure to inform your midwife. Chlamydia or gonorrhoea ('clap') may not always lead to obvious inconvenience, but for the baby they may cause premature birth or lead to eye or lung infection after birth. A cervical smear (Pap test) is used to establish the presence of the disease, which can be treated with antibiotics that are not harmful to the baby. Go to [www.soa.nl](http://www.soa.nl)

## Regular check-ups

In early pregnancy, you will see the midwife every four to six weeks for a check-up. Towards the end of the pregnancy, the intervals between the check-ups will become shorter. The number of check-ups depends upon how the pregnancy is going. Every time you go, the midwife will ask you how you are doing and perform the following checks:

**Size of the uterus.** At every check-up, the midwife will move her hands over your abdomen to feel how the uterus is expanding and thus to assess the growth of the baby.

**Heartbeat.** From around the third month, the midwife can hear the baby's heartbeat. From then on, she listens to your baby's heartbeat at every check-up. It can be quite emotional to hear your unborn child's heart beating so quickly! Almost twice as fast as your own heart.

**Position.** In the final months, the baby's position in the uterus is checked. Is he lying with his head down (the normal position) or with his buttocks downwards (breech presentation)? The bigger the baby, the more difficult it is for him to turn round in the uterus. At a certain stage, it is almost impossible to turn around and it is essential to know the position of the baby, as this determines how he will be born. Sometimes the midwife or the gynaecologist may try to turn the baby around (a process called external version). For more information: [www.knov.nl/stuitligging](http://www.knov.nl/stuitligging).

**Blood pressure.** At every check-up, your blood pressure will be checked. The blood pressure is indicated by two numbers: one for systolic pressure and another for diastolic pressure (for example 110/70). Your blood pressure should not be too high. If it is, your midwife will pay extra attention to your health and that of your baby. Towards the end of the pregnancy, your blood pressure will generally rise somewhat. It may be necessary to check your urine. Low blood pressure can do no harm, but is sometimes a bother because it can lead to dizziness. In this case be careful getting out of bed or getting up from a chair.

**Your weight** On average, you will gain ten to fifteen kilos during a pregnancy. Keep a record of your weight and height at the start of your pregnancy.

At [www.voedingscentrum.nl](http://www.voedingscentrum.nl) you can use this information to see whether your weight is normal. More on this on pages 32 to 34.

**Internal examination** The midwife or gynaecologist may decide to conduct an internal examination. If this is a problem for you, for whatever reason, please mention it so your midwife and gynaecologist can take your wish into account.

**Fluid retention** Towards the end of the pregnancy, your body will retain fluid. This is normal. As a result your hands and feet may be somewhat swollen.

### Registering your data

For medical-scientific and statistical research, it is important to collect data on pregnancy and birth. Doctors and midwives take part in these efforts designed to improve medical knowledge and the quality of care. Your data will be registered anonymously. For more information on data registration, go to [www.perinatreg.nl](http://www.perinatreg.nl), [www.rivm.nl](http://www.rivm.nl) or [www.sanquin.nl](http://www.sanquin.nl)

### Transferring your data

A midwife or gynaecologist will register the data on the progress of your pregnancy, the actual delivery and the period of post-natal care. This information is essential to make sure you and your child get the best possible care. Your permission is required before the data can be passed on to another medical health organisation. Talk to your midwife if you have any questions.

# Prenatal screening

There are different forms of prenatal screening and they are constantly being improved and refined. Prenatal screening does not give you total certainty about the baby's health. It is impossible to detect all defects and diseases in the unborn baby. No type of prenatal screening can guarantee that there is nothing wrong with your child. Your midwife will give you more information. The most common types of screening are described here. Or go to: [www.rivm.nl/Onderwerpen/Z/Zwangerschapsscreeningen](http://www.rivm.nl/Onderwerpen/Z/Zwangerschapsscreeningen)

## The combination test: When and how?

The combination test can only be carried out between weeks 9 and 14 of the pregnancy. The purpose of the test is to determine the probability of one of the following disorders: Down Syndrome or (even less common) Edwards Syndrome (Trisomy 18) or Patau Syndrome (Trisomy 13). This test combines several data

- a nuchal scan of the baby
- a blood test for the mother
- the age of the mother.

The nuchal scan measures the layer of fluid in the baby's neck. The thicker the layer of fluid, the greater the probability of a baby with a disorder. The nuchal fold can only be measured between 11 and 14 weeks of pregnancy; then it disappears. The blood test measures

the presence of two specific substances your blood. These substances can best be measured if you are 9 to 12 weeks pregnant.

The results of both tests are then converted into a probability calculation. The calculation also takes into account your age, the duration of your pregnancy, your weight and whether or not you smoke. The risk is considered increased if the outcome is greater than 1 in 200. The test cannot, however, provide you with total (100%) certainty, one way or the other.

The test is available to everyone. Health insurance only covers the test if the mother is 36 or older, if she has previously had a child with a chromosome disorder, or if the disorder occurs in the family.

An optional screening ultrasound carried out after around 20 weeks can detect physical defects in the baby, but only if these defects are clearly visible on the ultrasound. In some cases a second scan may be required in the hospital. Even if no defects are found, that does not mean there is 100% certainty that your child is free of defects. At this stage, some defects are still undetectable; others have not developed yet.

### **What to do with the result of the test?**

If you have been well informed about the defect your unborn child will be tested for, you should get together with your partner and discuss your course of action once the result of the test is known. If the scan has shown up a defect, or if the combination test indicates that the risk of a disorder is higher than 1 in 200, you may opt for further examinations.



space ultrasound photo



Ultrasound photos are printed on special paper. After a few years, the pictures will fade and the paper creases easily. If you want to keep the photos, store them safely. Better still, scan them and you will be able to enjoy them for the rest of your life. Never plasticise, or they will melt!

The most important questions to answer are: are you prepared to undergo further examinations and would you, or would you not, be prepared to terminate the pregnancy if a congenital defect or disorder is found? You need to talk about this.

### What are the chances?

There is no single test that will give you a full guarantee of good health. The results of prenatal screening can only tell you if there is a chance of a specific congenital defect.

Even if there is only a small chance, the defect could still be present. On the other hand, if the chance is greater (greater than 1:200) this does not definitively prove that there is a defect. It does, however, entitle you to follow-up testing: prenatal diagnosis. This can be amniocentesis, chorionic villus sampling, extensive echoscopic examination and, possibly, an NIP test (NIPT). This test is new and still in the process of regulatory screening in the Netherlands. For that reason, it is not available to everyone.

### Diagnostic testing

Tests carried out during pregnancy to detect chromosomal disorders are called pre-natal diagnosis. If you have had a combination test (see p 24) and the result points to an increased risk, you may be entitled to an NIPT-test (see p 28).

If you are 36 or older, or already have had a child with a chromosomal defect, chorionic villus sampling and amniocentesis are available for you.

The disadvantage of the tests is that they increase the risk of miscarriage, to 1 in 300.



For more information about prenatal screening, go to [www.strakswangerworden.nl](http://www.strakswangerworden.nl), [www.rivm.nl/zwangerschapscreening](http://www.rivm.nl/zwangerschapscreening) and [www.erfelijkheid.nl](http://www.erfelijkheid.nl)

## NIPT

NIPT stands for Non-Invasive Prenatal Test. NIPT is only available if there is a clear medical indication (for instance, if you had an earlier pregnancy involving a child with a chromosomal defect) or if the combination test points to an increased risk (1 or more in 200) of Down Syndrome, Edwards Syndrome or Patau Syndrome. For more information on NIPT, go to [www.meerovernipt.nl](http://www.meerovernipt.nl) or ask your midwife.

## Chorionic villus sampling (CVS)

Chorionic villus sampling will give you certainty whether or not your baby has a chromosomal defect, for example Down Syndrome. A small amount of tissue (chorionic villus) is removed from the placenta, through the vagina or abdominal wall. The test is possible between weeks 11 and 13 of your pregnancy and the result is usually available within a week.

## Amniocentesis

For amniocentesis, a long, thin needle is inserted through the abdominal wall into the uterus. A small amount of amniotic fluid is withdrawn.

It takes a week before you get the results. Amniocentesis is possible after 16 weeks of pregnancy.

## What does the insurance pay for?

Your health insurance pays (allowing for your annual deductible) for the test in a number of cases:

- Medical indication. This means: if there are congenital or hereditary conditions in your immediate family or in your partner's family. Or if the outcome of the combination test points to an increased risk
- if you are 36 years or older
- if you or your partner have a hereditary disease, the cost of the tests for specific defects will be covered.
- if you are taking (or have taken) medication that may be harmful to the baby
- if you have previously had a child with a disorder.

The midwife will inform you about which tests are available to you. Check your insurance policy to see what is financially possible.

# Registering for post-natal care

Even if you get help from family or a friend, you cannot do without professional post-natal care. It is compulsory and largely paid for by your health insurance, even when you give birth in a hospital under gynaecologist supervision.

A maternity nurse is available during the first 8 days after birth, whether in the hospital or at home, to look after you, to help you and your partner to look after your baby independently as quickly as possible.

The maternity nurse assists the midwife at birth, she checks on you during the post-natal period and on your baby to make sure he is adapting well to life outside the womb.

The maternity nurse assists the midwife at birth, she checks on you during the post-natal period and on your baby to make sure he is adapting well to life outside the womb. More information in Growth Guide Post-natal care.



Go to [www.groeigids.nl](http://www.groeigids.nl) or use the GrowthApp to set up a digital file for your child. Print your own booklet, with a growth curve, a list of vaccinations and other milestones.



It is normal for new parents to have lots of questions about caring for the baby. The maternity nurse will give you all the answers. The midwife has a list of maternity centres she works with on a regular basis. Make sure to inform your health insurance company of the maternity agency of your choice.

How much post-natal care you are entitled to depends on your personal circumstances. To get this information, contact your health insurance provider as soon as possible. Registering for post-natal care is possible through your insurance or directly via the maternity centre.

For more information, call the centre or your insurance company. A couple of weeks before the due date, the maternity centre will contact you and will, if necessary, arrange an intake visit at your home.

# A healthy lifestyle

You can simply keep doing what you always did: work, sports, sex, driving, etc. Your body will let you know when it becomes too much. It is, therefore, a good idea to listen to your body and take good care of yourself. There are however a number of things you must pay extra attention to:

## Your diet

Good nutrition is even more important during pregnancy than at other times. The baby is dependent upon it. The future mother and her baby need a bit more of most vitamins and minerals. That does not mean that you must eat more during pregnancy, rather that the quality of the food you eat must be good. The most important guideline for your diet is simple: make your diet as healthy and as varied as possible. It is better to eat a couple of small meals throughout the day than a large amount of food at once. 'Eating for two' is absolutely not necessary. Make sure to drink between 1,5 and 2 litres of fluid per day, preferably water.

## Folic acid

Before getting pregnant, it is a good idea to start taking folic acid at least four weeks before conception. As you do not know precisely when you are going to get pregnant, it is best to start taking folic acid when you stop using birth control. If you keep

taking it up until the tenth week of your pregnancy, you reduce the risk of having a baby with spina bifida. The recommended dosage is one tablet of 0,4 mg per day. Folic acid can be obtained without a prescription. See [www.slikeerstfoliumzuur.nl](http://www.slikeerstfoliumzuur.nl)

### Vitamin D

The function of Vitamin D is to support the absorption of calcium from food. Calcium helps to build up your bones and keep them in good shape. Vitamin D is important for pregnant women. The recommended daily dosage is 10 mcg, which can also be taken in the form of a special multivitamin tablet. These contain Vitamin D and folic acids in the right proportions.



### Exercise and sports

At least half an hour per day of physical activity is recommended, preferably outdoors. Being in good shape will help you during pregnancy, delivery and recovery. If you practice a sport involving strenuous activity or physical contact, talk to your midwife.

Practicing sport at a professional level is not advisable.

## Weight and nutrition

Eating well and getting enough exercise (walking, bicycling, swimming) will contribute to a healthy pregnancy.

What about a 'Fit for Two' course, or advice from your dietician?

Being at the right weight (check your bmi on [www.voedingscentrum.nl](http://www.voedingscentrum.nl)) and staying there are important during pregnancy.

Women who are overweight are at an increased risk of pregnancy diabetes and other complications. Note that the baby may be less visible on an ultrasound in case of serious overweight. Also keep in mind that giving an epidural to obese people can be more difficult. Serious overweight may also be a medical indication for a hospital delivery.

Women who are too light (underweight) for a normal pregnancy. If that is the case, get help from a dietician. To grow and develop well, your baby really needs you to eat and live in a healthy way. Mother Nature has conveniently arranged for your body to store some extra fat now in order for you to breast-feed in the future. Breast-feeding requires energy too. You will find that you will lose the pregnancy pounds quickly after birth once you start breast-feeding. Go to [www.voedingscentrum.nl/zwanger](http://www.voedingscentrum.nl/zwanger) for more information.

## Toxoplasmosis

A toxoplasmosis infection can lead to congenital defects in your child. Cat faeces may contain a parasite that can cause toxoplasmosis. For that reason, you should wear gloves when working in the garden or cleaning the cat litter box.

The same parasite can occur in under-cooked or raw meat and unwashed, pre-cut vegetables and fruit. During pregnancy, do not eat rare roast beef, fricandeau, steak tartar, raw minced ground steak or raw beef sausage. Also, pay close attention when cooking meat. It must be well done or thoroughly cooked. Lunch meats such as smoked or uncooked ham, smoked horse meat, dried beef or salami can do no harm; they are not actually raw but have been specially treated. Because the parasite can also occur in fruit and vegetables (especially pre-cut vegetables) make sure to wash all vegetables and fruit carefully.

## Fish

Eating fish is very good for you. The acids are important for the development of your unborn child's brains and eyesight. You can eat white fish every day. Buy and eat the fish as fresh as possible. Maintain high standards of hygiene when keeping and preparing it. Because of dioxins, do not eat fatty fish or wild fish such as swordfish, tuna, shark or king mackerel (300 grams in total) more than twice a week. Be careful with raw fish (sushi) and shellfish, such as oysters. The same applies to cooled, vacuum-wrapped fish such as salmon, eel and mussels. You can eat these safely if they are sufficiently pre-heated.

More information on [www.voedingscentrum.nl/eten en drinken tijdens de zwangerschap](http://www.voedingscentrum.nl/eten-en-drinken-tijdens-de-zwangerschap).

### Soft, raw cheese

Soft cheeses that are made from raw (unpasteurised) milk may contain the listeria bacteria. This may apply, for example, to brie, camembert and roquefort. It is not a huge risk, as most of the cheese sold in the Netherlands is made from pasteurised milk. The listeria bacteria is virtually harmless to adults, but it may be dangerous for unborn babies.

Always check the label on the cheese. If it says 'au lait cru' or 'ongepasteuriseerde melk' you should not eat that cheese. If in doubt, ask the shop assistant.

### Kitchen hygiene

Bacteria like listeria may develop in vegetables, chicken and meat when kept too long in the fridge, or in vacuum-packaged fish. So always buy these products fresh and do not keep them in your fridge longer than necessary. Cooking and frying will eliminate the listeria bacteria.

Raw milk, fresh from the farm, is not recommended. Wash your hands regularly and use a clean kitchen cloth every day to keep bacteria at a safe distance.

## Vitamin A

Too much vitamin A can be harmful for an unborn child. Pregnant women should not take in more than 3000 mcg per day of Vitamin A as contained in animal products and supplements. Liver contains a lot of Vitamin A and it is therefore best avoided during pregnancy. Other products with vitamin A, such as carrots and margarine, are no risk at all. There can also be too much vitamin A in multivitamin tablets.

Apart from folic acid and Vitamin D, extra vitamins are not necessary. If you do want to take them, it is best to use special prenatal vitamins.

More information on: [www.voedingscentrum/zwanger](http://www.voedingscentrum/zwanger)

## Caffeine

Caffeine may be harmful for the unborn child. As the mother takes in more caffeine, the risk of miscarriage or an underweight baby increases. So-called 'energy drinks' with very high amounts of caffeine are best avoided. The advice to pregnant women is not to take more than 300 mg (the equivalent of 2 cups of coffee, 2 cups of tea or 1 glass of Cola) per day.

More information on: [www.voedingscentrum.nl/mijn-kind-en-ik](http://www.voedingscentrum.nl/mijn-kind-en-ik).

## Smoking

Do you or your partner smoke? Discuss this with the midwife! Smoking during pregnancy is exceedingly bad for your baby. Even if you do not smoke yourself, but are regularly in smoke-filled places, or if your partner smokes, this can have an effect on the health of your baby. As much as 85% of cigarette smoke ends up in the air around you. Being in a smoke filled room for eight hours has the same effect as smoking several cigarettes. The harmful substances in smoke cause a reduction in the flow of blood to the placenta, from which feeds your baby gets his food. As a result, your baby does not receive the required amount of oxygen. Babies of mothers who smoke or breathe second-hand smoke have a lower average birth weight and are also more often born prematurely. This makes them extra vulnerable. As they grow up, they have more respiratory problems than other children. There is some evidence suggesting that smoking is one of the risk factors for SIDS (cot death - Sudden Infant Death Syndrome). SIDS is more common when people smoke in the presence of the baby (during and after the pregnancy). For more information, go to [www.stivoro.nl/stoppenmetroken](http://www.stivoro.nl/stoppenmetroken) or ask your midwife for advice on how to give up. It is always the right time to quit, now more so than ever.



Babies born to mothers who quit smoking at conception are just as healthy as babies born to non-smoking mothers. It is never too late to quit.

Smoking weed (hashish, marijuana, cannabis) is equally bad. As the substances stay in your body for a long time, you are not allowed to breast-feed until six months after quitting.

## Alcohol

It is best for the child if you avoid alcohol altogether during pregnancy. Unborn babies are growing and developing all the time. In this process, the brain and the organs are most vulnerable. That is why drinking alcohol is never safe, not even in small quantities.

The main risks for the baby are:

- premature birth
- underweight
- damage to the brain or other organs
- risk of FASD (Fetal Alcohol Spectrum Disorder), a name used to describe a series of disorders affecting babies born to women taking alcohol during pregnancy. FASD is more common than many people think. It is impossible to indicate the level of alcohol above which a baby is at risk of FASD.

So, if you are expecting a baby, it is best not to drink any alcohol at all.

(More information: [www.fasstichting.nl](http://www.fasstichting.nl), [www.alcoholinfo.nl](http://www.alcoholinfo.nl).)

## Drugs

The use of all types of drugs (amphetamines, ecstasy, heroin and cocaine, but also soft drugs) during pregnancy is harmful for the baby. He can become addicted and must then kick the habit

after birth in an incubator. Babies who have been exposed to drugs are often born prematurely and there is a greater risk of death just before or just after birth. Their growth may be slower than normal.

There is growing evidence of the risk of serious brain damage to the baby if the mother uses cocaine during her pregnancy. Taking cocaine appears to damage the baby's brain, which may in turn lead to speech difficulties (dysphasia). Babies born to women taking cocaine appear to be more vulnerable to problems affecting their motor skills (dyspraxia)

In the interest of the baby, if you use drugs, even if it is only occasionally, you must talk to the midwife or your doctor. With you, they will go through the best options for your baby. Go to [www.drugsinfo.nl](http://www.drugsinfo.nl) for further information.

## Medication

When you want to get pregnant and of course during the pregnancy itself, you must be careful when using medication, whether it is pills, powders, capsules, injections, ointments or creams. If you are being prescribed medication, always make it clear that you are or may be pregnant. Also, ask for advice from



Never simply stop using prescribed medication: consult your doctor first

the drugstore or pharmacist if you buy any over-the-counter medication yourself and always read the information sheet. Some medication contains substances that can have an influence on the development of your child even very early in pregnancy. If necessary, you may use paracetamol (without codeine or caffeine). Pay close attention to the dosage; you can find it in the instruction sheet.

Go to [www.lareb.nl](http://www.lareb.nl) for more information.

### Dentist

You can undergo all dental treatments, including an anaesthetic. Make sure the dentist knows that you are pregnant. Pregnancy hormones slightly increase the risk of bleeding gums and gingivitis. It is important to keep brushing your teeth well and to get your regular check-ups.

X-rays are usually harmless. When you are in a hospital X-ray department (for yourself or somebody else), make sure the staff knows you are pregnant, even if you only suspect it.



## Parodontitis

Parodontitis is a more serious form of gingivitis, as it also affects the dental bone. If your dentist has confirmed parodontitis, you should get it treated as soon as possible. Tell the midwife about it, because parodontitis may have consequences for your pregnancy.

## Dangerous substances, dangerous professions

Avoid as much as possible: paints and other turpentine based substances, pesticides, chemicals (including photo developing chemicals). There is no problem with colouring your hair, but during pregnancy, the colours might turn out differently. If you have irregular working hours or are in a dangerous profession, get advice from the company medical officer. More information is to be found on [www.zwangerwijzer.nl](http://www.zwangerwijzer.nl), which also offers you a checklist for assessing your situation.



[Www.rijksoverheid.nl](http://www.rijksoverheid.nl) offers a lot of information on working with dangerous substances. For details, look under 'Gezond en veilig werken' (Health and safety at work) in the chapter on 'Werk en loopbaan' (Work and career).

# Your body is changing and may cause you some discomfort

## Tired

All the changes in your body can cause you to have less energy than you normally have, especially in the first three months. This fatigue generally disappears after the third month of your pregnancy. In general, pregnant women actually feel very fit and full of energy from the fourth through to the seventh month. In the final months, your body is much heavier. Most women then need more rest. Don't fight this!



## Nauseous

Many mothers-to-be are bothered by nausea in the first months of pregnancy especially in the morning. That is due to the changes in the hormone balance. These symptoms generally subside around the fourteenth week, but some women have them throughout their entire pregnancy. If you have morning sickness, it can help to stay in bed a bit after you wake up and to eat a dry cracker or a piece of light toast while still in bed. Getting out of bed slowly and calmly can help prevent morning sickness. However uncomfortable it is, it is nothing to worry about. Even if you lose weight because of the vomiting or if your appetite is poor, you still have sufficient reserves for the baby to grow normally. What may help is to eat small portions of food throughout the day. If you are worried about the nausea or have daily bouts of vomiting, contact your midwife.

## Heartbeat

During pregnancy, the amount of blood in your body increases by 25%. Five litres of blood becomes 6 to 6.5 litres. The heart must work harder to pump the blood through your body. For that reason, your heart beats faster than normal -- around fifteen to twenty extra beats per minute. At times, you can really feel the beating of your heart. That is quite normal. 'Flushes' are another common occurrence for pregnant women.

### Nicer hair

Your hair can become fuller, softer and more lustrous during pregnancy. That is because the blood circulation throughout your body is better (thus, also in your scalp). What a pity all that extra hair falls out around the third month after the birth.

### In the sun?

Go outdoors as much as you can when you are pregnant. But make sure you do not sit in the sun too long. Under the influence of hormones, your skin can become mottled with brown spots, which may not totally disappear after delivery. To avoid a pregnancy mask, sit in the shade or use a high protection sun block.

### Vaginal discharge

During pregnancy, you may have more vaginal discharge than normal. You are also more susceptible to the candida fungus. The discharge then changes colour and structure. If you develop itching or swollen labia or there is an unpleasant smell, you should ask your family doctor for advice. In any case, pay close attention to your hygiene. Wash and rinse the genital area only with lukewarm water and use as little soap as possible. It is better not to wear tight-fitting, synthetic underwear; cotton underwear is, therefore, to be recommended. Loosely fitting cotton underwear, without panty-liners, can help to prevent this type of inconvenience. Less sugar in your food can have the same positive effect.

## Sex

As long as you feel like it yourself, you can have sex throughout your entire pregnancy. The desire for sex during pregnancy differs not only between women, but also between men. Some women have more libido than usual, others much less. And the same goes for men.

A pregnancy is a major event for them too. If you are having problems with sexuality it is important to talk to your partner about it as openly and honestly as possible.

If you have blood loss or your waters have broken, sexual intercourse is not recommended.

You can, of course, also turn to your midwife with your questions or concerns.

## Itching

During pregnancy, hormonal changes can lead to itchy feelings around the stomach and the arms and legs. The advice is to avoid hot showers and possibly use menthol gel.

Pregnancy can cause a slight congestion in the liver so that not all waste products are removed and end up in the bloodstream. Via the blood, these waste products can sometimes cause itching and skin rash. If you have severe itching, (including to the palms of your hands or the soles of your feet) report that to the midwife.

## Abdominal pain

Now and then, in the course of the pregnancy, women have a 'stomach ache.' This is generally harmless. Throughout their entire pregnancy, women can sometimes get a 'hard belly.' That happens if they change position: when getting on or off a bicycle, when getting into or out of bed, when sitting down or getting up from the couch, etc. Depending on how far the pregnancy is, the cause of this pain may be different.

At the start, abdominal pains are very common because the uterus is growing and pressing against various organs. One of the consequences is a more frequent need to urinate.

A pregnant woman can get stomach pains if she works too hard or is under a great deal of stress. In late pregnancy -- or towards the end -- women become concerned about sharp pains in the pubic area. These shooting pains are caused by the baby's head pressing down on nerves in the pelvis. Pregnant women also complain about 'a heavy feeling' in the pelvic area, which is caused by the engagement of the baby. This puts pressure on the lowest part of the uterus and the vagina. A hard tummy may be due to a bladder infection. You generally feel no pain when urinating! Here too, it is necessary to contact your midwife. A bladder infection must always be treated.

Please note: If there is regularity in the hardening of the stomach, whether or not it is early or late in the pregnancy, always contact your midwife.



## Ligament pains

Pregnancy hormones slacken the ligaments connecting the uterus to the rest of the stomach. The uterus grows and stretches, which can cause a feeling of unpleasant pain to the right and left side of the pelvis. This is called 'round ligament pain' and is felt when making certain movements, such as getting up, turning over in bed or walking or standing for a long time. These pains may continue throughout pregnancy. Some women experience them right from the start, others later on as the stomach gets heavier. But they are totally harmless. An upright posture and careful movement are important. Or you could wear a tummy support corset in the last months.

## Pelvic complaints

The tissue connecting your pelvis, sacrum and pubic bones slackens during pregnancy.

The reason is that the baby must soon be able to pass through the pelvis. In some women, the pelvis becomes very pliable and flexible. Ligaments and muscles have difficulty to keep the pelvis stable. This is called 'pelvis pain' or 'pelvis instability'.

It can develop during pregnancy, but also after the delivery, and it causes pain during and after walking, standing, sitting, turning over in bed, sex, driving, climbing stairs, etc. It affects your physical capacity.

In general, the symptoms will disappear within two months after delivery. Tell your midwife about your pelvic complaints. You can

apply for pelvic and/or general physiotherapy. Nowadays, there are specially trained physiotherapists who can advise and help you to move your pelvis with the least possible irritation. Pelvic symptoms can be recognised by a bruised and tired feeling around the pubic bone. Sometimes, the pain radiates towards the inside of the upper leg or the groin. Pain in the lower back radiating towards the knee, can be due to the fact that the pelvic tissue is becoming softer. A pelvic support band may provide support.

Women with pelvic complains often experience problems when urinating or defecating, or while having sex. Problems that may occur include an irresistible urge to urinate, difficult stool and/or painful sex. Pelvic muscles play an important part in these bodily functions.

If the pelvic muscles are too tight, or too slack, they may not be able to function as desired. The pelvic physiotherapist can help you to improve control over these functions. Improved functioning of these pelvic muscles will have a positive influence on the irritation of your pelvic muscles and ligaments.

Tighten your pelvic muscles, keep them tight for five seconds and then relax. Repeat the exercise ten times, preferably three times a day. Pregnancy courses will teach you these and other exercises. You can exercise when and where you want!



## Incontinence

It is not unusual to lose a bit of urine accidentally now and then, for example if you laugh or lift something. The pelvic floor muscles have slackened and the uterus is weighing more heavily on the bladder. Loss of urine may be accompanied by an irresistible urge to urinate, even when you cannot reach the toilet on time. If incontinence becomes a serious problem, don't wait too long before discussing it with your midwife. In the event of persistent incontinence, the midwife may refer you to a pelvic physiotherapist.

## Stretch marks

Roughly half of pregnant women develop stretch marks in the second half of pregnancy. The marks are caused by hormones and stretching of the skin. Creams can help you keep your skin soft, but will not prevent these marks altogether. The marks are red scars of stretched and torn elastic skin tissue. After birth, the marks will gradually lose their colouring but they will not disappear. It is better not to go out into the sun as long as the marks are still red.

## Haemorrhoids and varicose veins

These are unpleasant conditions that can occur relatively often in pregnancy. Haemorrhoids are swollen blood vessels (varicose veins), which can be located both on the inside and the outside of the anus. Just like varicose veins on your legs, they are caused

by the changing hormone balance in your body; this results in a weakening of the vascular walls.

Haemorrhoids occur when there is too much pressure around the anus when going to the toilet. It is therefore important to try and keep the stool as soft as possible. Hence the importance of getting plenty of exercise, drinking lots of water and including plenty of fibre in your diet. This includes a diet of fresh vegetables, wholemeal bread, pasta and brown rice. Or ask your midwife.

Varicose veins are generally located on the legs, simply because there is more pressure on the veins here than on the veins in the rest of the body. Getting enough exercise will also help prevent varicose veins and alleviate the symptoms. If you notice that you are developing varicose veins, you should avoid crossing your legs as this blocks the veins and exacerbates the problem! Every now and then, put your legs up to improve the circulation. At night, raise the foot end of your bed or put a pillow under your mattress. Wearing support stockings helps alleviate painful varicose veins. You could also try varicose veins therapy. Ask your midwife or a physiotherapist for more information.

In some cases, varicose veins occur in the pubic area. This is unpleasant, but mostly harmless. Cold compresses may help alleviate the pressure on them (and on haemorrhoids) during birth.

Should you continue to be bothered by haemorrhoids and/ or varicose veins after birth, visit your family doctor for further advice.

### **Blood loss in early pregnancy**

One in five or six women experience blood loss in early pregnancy.

This may happen for a number of reasons. The bleeding may be caused by a small wound in the cervical area. This is unpleasant and scary, but it is not necessarily dangerous.

If you are losing dark blood and feeling cramps, this may indicate a miscarriage. Call your midwife to discuss the options. She will advise you and help you where possible.

### **Blood loss after 3 months**

If you start to lose blood after the thirteenth week, you must certainly call the midwife. She will discuss with you what to do. Perhaps she will want to see you for an extra check-up, or she may send you to the hospital.

### **Vacations**

There is no problem going on vacation when you are pregnant. It is a nice opportunity for both partners to prepare for the arrival of their baby. When planning the vacation, here is some important advice. Do not plan to drive long distances every day. Plan sufficient rest for the mother-to-be and do not undertake too many strenuous activities. It is a good idea to choose a destination with good medical care, in case any unforeseen complications should develop.

Get information from the GGD (Municipal Health Service) concerning vaccinations and their advisability during pregnancy. The GGD will also provide you with specific health information on your country of destination.

Take your pregnancy data with you, whenever and wherever you go on holiday. Get a copy of your pregnancy card from the hospital.



Airline companies generally refuse to allow women on board who are more than 32 to 36 weeks pregnant. This is to prevent the risk of in-flight deliveries. There are however no medical objections to flying. It is, of course, important during any flight to drink enough and move around regularly. Ask your airline company or get an 'air-travel statement' from your midwife.

## Work

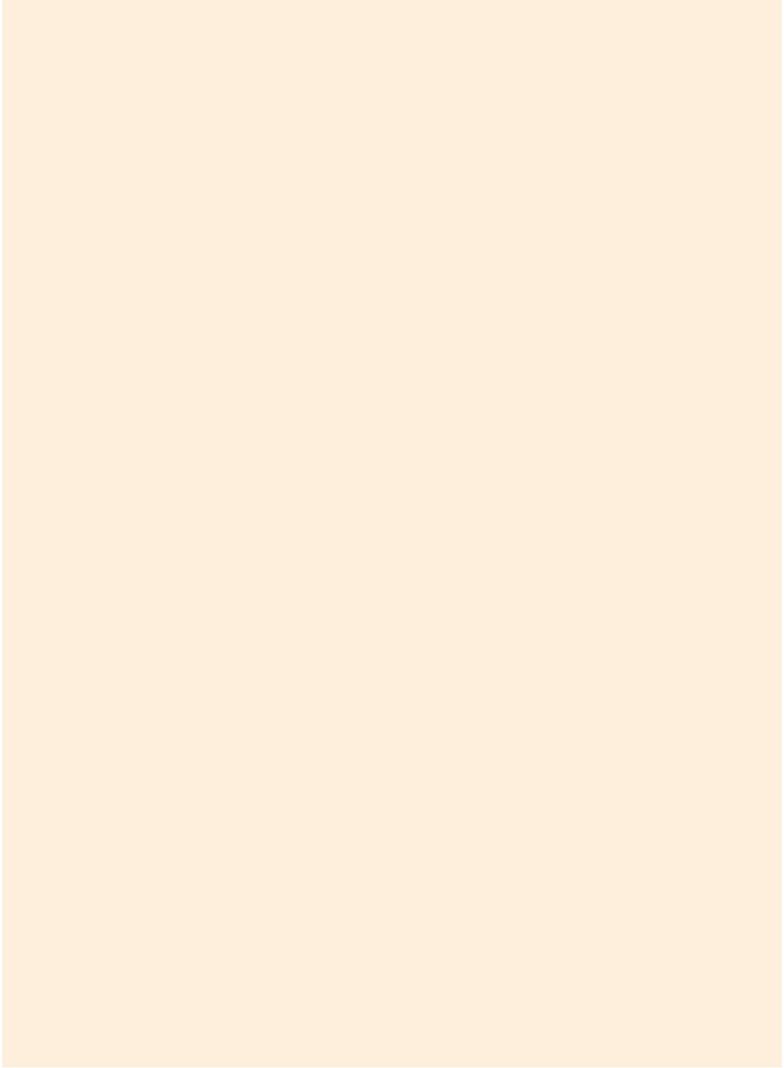
Some working conditions may form a risk for the pregnancy. For this reason, there are legal work regulations for pregnant women and women who have just given birth (the Working Conditions Act and the Pregnant Employees Decree). Work in which you are exposed to severe vibrations, radioactivity, chemical substances or risk of infection is best avoided in pregnancy. This also applies to hard physical labour. In such cases, discuss with your employer or the company doctor (Health and Safety Executive) whether your work can be adapted or perhaps you do other work temporarily.



Pregnant women are entitled to extra breaks and cannot, in principle, be asked to work overtime or do night shifts. That applies through pregnancy and for the first six months after the birth of her child. There are also rules for breast-feeding at work. Go to: [www.rijksoverheid.nl](http://www.rijksoverheid.nl) and look for 'werken en zwanger' or 'werken en borstvoeding'

## Other problems?

You may be confronted during pregnancy with other problems: in your relationship, with work, housing or financially, etc. It is best to discuss these problems with someone you trust and who might be able to help you. You may also talk to your midwife about these things. She can, if necessary, refer you a specialised counsellor.



This is how I looked when you were in my tummy

# Practical matters

## The layette

During the post-natal period, you need the following for your baby:

- 4 vests
- 4 tops
- 3 baby grows or trousers with feet
- 2 pairs of socks
- 2 baby hats
- 1 package of disposable diapers for babies from 3 to 6 kilos (or cotton diapers)
- 6 to 12 hydrophilic nappies (these are used as towels)
- 2 to 4 hydrophilic washcloths
- 6 cloth wipes
- 1 metal hot water bottle with intact rubber closure ring
- hot water bottle cover
- changing cushion
- bath towel/cape
- baby bath with stand (or a Tummy Tub)
- navel clasp
- tube of zinc ointment for the buttocks
- a digital thermometer (no ear thermometer for the baby)
- if desired, a baby comb or brush

## A crib must be safe!

When buying or preparing the crib for the baby it is important to ensure that the mattress is clean. It should be firm not soft

and at least 6cm thick and fit the cot without any gaps. There must be no more than 2,5 cm of space on the sides. Any bars on the sides must be spaced between 4,5 and 6,5 cm from each other. It is important that the sides of the cradle or crib allow ventilation. A baby's bed should not have any loose cords or ribbons in it. Once all of this has been taken into account, your baby can go to sleep safely!

See [www.wiegedood.nl/veiligslapen](http://www.wiegedood.nl/veiligslapen) and [www.veiligheid.nl](http://www.veiligheid.nl)

For the bed, you also need:

- 4 cotton sheets
- 2 woollen/cotton blankets

You should never allow your baby to sleep under a duvet because of the danger of smothering!

See [www.wiegedood.nl](http://www.wiegedood.nl) (also in several languages).



### Car seat: buy it early

A baby may only be transported in a car in an approved car seat and not on your lap or in a carrycot. That would be extremely dangerous in the event of an unexpected manoeuvre or if the driver must brake suddenly. It is best to buy the car seat a few weeks before the birth. Before the baby is born, both parents should know how the seat works, and how to secure it in the car. This is important should your baby need to be transported quickly and unexpectedly shortly after birth. The safest place for the baby car seat is in the back of the car. If your car has an

airbag in the front passenger seat, the car seat should never be put in front, unless you switch off the air bag.

### **No baby walkers**

When, during your pregnancy, you are shopping for the baby or making up a list of gift suggestions, remember that the use of baby walkers is not recommended. They are the cause of many accidents and they are not good for the development of your baby's legs and hips, however smart it may look.

### **Baby sling**

When purchasing a baby sling, you should make sure the sling is suitable for the baby's age.

Extensive safety requirements for baby slings are listed on [www.veiligheid.nl](http://www.veiligheid.nl)

### **What do you need to have in the house for the delivery and the post-natal period?**

Many of the things that you will need are in the 'maternity kit' you often receive from your healthcare insurance, or else you buy it in a drugstore. Check with your insurance company.

You can borrow bed blocks and a bedpan from your home care agency. The thermometers you need to buy yourself.

### **Blocks under the bed**

Even if you are planning a hospital birth, the Health and Safety law (ARBO) stipulates that midwives and maternity assistants may only work if your bed is at the correct height. This is to prevent back injury. So you must place bed blocks under your bed.

### **Your own minimal needs from the kit:**

- a rubber sheet or a piece of plastic to protect the mattress
- 6 cellulose mats
- sterile gauze
- cotton wool
- a package of maternity sanitary towels or diaper pads
- 3 packages of sanitary towels (large)
- a thermometer (not always included in the maternity kit)
- a small bottle of 70% alcohol for cleaning the thermometer.

### **And:**

- Bed blocks to raise your bed (borrow it (free) from the home care agency)
- garbage bags
- a potty (borrow it free of charge from the home care agency)
- 2 buckets
- paracetamol 500 mg (no additions)

It is advisable to have all the necessary items in house before the 37th week of your pregnancy and put them in the room where you are going to deliver.

The midwife should be able to walk round the bed. Make sure there is enough light during the delivery, maybe by putting in an extra lamp.

### Suitcase

Whether you are planning to give birth at home or in hospital, it is best to be prepared for both situations and to have a packed suitcase ready in case you have to go the hospital. When packing you should not forget your health insurance card (which states your social security number (BSN)), your passport or identity card, your hospital card (if you have one), the pregnancy card from the midwife, small change if you want to use a wheelchair, a camera (remember to charge the batteries), the first clothes for the baby and clothes to take him home, a toilet bag, clothing for yourself and the car seat to transport the baby safely.



If you have other children, arrange for a baby sitter, even when you are giving birth at home. Just before the baby is due, prepare your child for what is in store.

## Thinking about childcare

Every woman is entitled to 16 weeks of maternity leave. This generally runs from 6 weeks before the due date to 10 weeks after the birth. If the baby comes earlier, the leave is still 16 weeks. If it is later, the leave is automatically extended.

You can discuss flexible arrangements with your employer, for instance to start the leave period later. You may also extend your maternity leave by using your vacation days. Parental leave can also be discussed with your employer. If you are planning to return to work after your baby is born, it is a good idea to find out about childcare possibilities during your pregnancy.

How many days per week do you plan to work once the baby is born? And your partner? What are the possibilities for childcare that are appropriate for you? What is the educational climate like at the childcare centre, what is the teacher/child ratio, do the children get enough moments of rest?

How much does it cost? Is there a contribution from your employer? Or from your partner's employer? Would you rather organise something with family or neighbours? Are you going to look for private childcare, a childcare centre or would you rather have a babysitter in your home? See [www.verlofwijzer.nl](http://www.verlofwijzer.nl) and [www.kinderopvang.pagina.nl](http://www.kinderopvang.pagina.nl).

## What is the baby's surname (last name) going to be?

If the child is a Dutch citizen, married parents may choose the father's or mother's surname for their firstborn child. This surname will then also be given to all other children born into the family. If you choose the mother's surname, both parents must register this, personally, with the Civic Registry, preferably in your own district or municipality. It is, of course, best to do this during the pregnancy. Without registration, your child will get the father's last name. Unmarried parents have the same choice between the surname of the mother or the father. If you wish your baby to have his father's surname, the latter must acknowledge the baby before you are 24 weeks pregnant. Together and in person you make a statement to that effect at the Civic Registry. Without such a statement, your baby will get the mother's last name (and also her nationality). See [www.rijksoverheid.nl](http://www.rijksoverheid.nl) or call the free information line: tel. 0800-8051.

## Recognising the baby and parental authority

If you are not married according to Dutch law, the biological father is not automatically the official father of the child. It is best to acknowledge your child as early as possible in the pregnancy and to register the desired last name of the child. Acknowledgement is also important in connection with inheritance laws. You can make the necessary arrangements at the Civic Registry in your municipality. Once the baby is born, you have to settle the issue of parental authority. This is done in a court of law. For more information, go to [www.rijksoverheid.nl](http://www.rijksoverheid.nl)

# Preparing for delivery

As your pregnancy progresses, you and your partner will have more contact with the baby in your tummy. You will feel him moving and you will notice when he is active or quiet. There are countless books to prepare you for birth and parenthood. For fathers, it can be an eye-opener to go online and surf on sites like [www.ikvader.nl](http://www.ikvader.nl)

## Information meetings

There are lots of therapy opportunities for mothers to stay fit and healthy and for both parents to prepare. Pregnancy yoga, hypnosis, practice therapy etc. You can get expert advice on posture and movement. You can learn relaxing breathing techniques to help manage pain. If you are in a pregnancy therapy course, you will be told what to expect and also how to handle labour pains.

There is a lot of information on the internet about pregnancy and breast-feeding courses that you and your partner can take together. Not only are you preparing for delivery and parenthood, you will get to know other future parents who will have a child of the same age as yours. Mutual support and the exchange of information are additional advantages of pregnancy therapy courses.

## A birth plan

It is difficult to predict in advance how the birth will progress. But you will undoubtedly have feelings, worries or wishes. Talk about this to your partner and midwife or gynaecologist. Because you may not be able to ask or explain things well when you are in labour, it is recommended that you make a short and clear list of how you would like things to be. This is called a birth plan. It is not a list of requirements, but a means of communication for the care providers attending your delivery. Give the plan to your midwife or gynaecologist well before the due date so you can talk about it. Needless to say, your wishes must be realistic and medically sound. In the end, it is the midwife or gynaecologist who takes final responsibility for the safety of your baby. By answering these questions to yourself, you (and your partner) can write a personal birth plan. Go to [www.knov.nl](http://www.knov.nl) for an example. Some suggestions for the plan:

### Who?

- Who would you like to be there when you give birth?
- When do you want them to be there?
- What do you expect from your partner or others in attendance?

### Where?

- Where do you want to give birth? At home, in the hospital, in a maternity clinic?
- Do you have special wishes concerning the place of delivery and the ambiance?

## Labour and contractions

- What is your preferred body position during labour and contractions? Some possibilities: walking, on your hands and knees, on the delivery stool, under the shower, on a skippy ball, in the bath... At [www.know.nl](http://www.know.nl) you will find an information leaflet with clear and detailed illustrations explaining the advantages of different delivery positions.
- How to handle the pain? Think of: breathing techniques, relaxation exercises, pain relief. Which one to choose?

## Medical treatment

- Do you have a view on certain medical procedures such as heart beat monitoring, internal examinations, intravenous vaccinations, vacuum pumping, a caesarean?
- Do you have special wishes if any of these procedures are necessary? In the event of a caesarean section being necessary, do you have special wishes? Things like: do you want your partner to be there, how soon do you get to hold the baby...
- Do you have any special wishes if for medical reasons you cannot be close to your baby?

## Baby

- What should the first contact with your baby be like?
- Would you like to hold it to your breast, do you want to cut the umbilical cord yourself?
- What sort of food do you want to give your baby?

## Other wishes

Any wish or suggestion not previously mentioned, like the presence of trainee midwives or gynaecologists? Do you want the birth to be photographed or should this wait until the baby is born? What is to happen with the placenta?



Make a copy of the birth plan and give it to your midwife or gynaecologist. Talk about it to them.

# How to handle labour and contractions

When preparing for your contractions, there are some important points to remember. If you are worried about feeling pain, talk to your midwife or gynaecologist. By getting the right information and by making known your wishes concerning pain relief (see the Birth Plan, p 64-66), you will feel more confident when the contractions start.

## The function of pain

First of all, it is good to know that pain has a function. Pain is a signal to look for a safe place and helps you to focus on the birth. Besides, pain contributes to the production of the body's own natural painkiller: endorphin. This makes the uterus more susceptible to the contraction hormone oxytocin, which has the double effect of making the contractions stronger and more effective, and of acting as the 'love and happiness hormone'.

## Pain comes in layers

Will I be able to stand the pain? This is a question every pregnant woman asks herself as the pregnancy progresses. You can take an important step towards handling pain by understanding that pain comes in 4 layers.

The inside layer is the pain stimulus, triggered by the contraction of the uterus, the cervix and the engagement of the baby.

The second layer is pain awareness: the stimulus expresses itself as stomach pain, back pain and/or pain in the legs.

The third layer is the sensing of pain: how do you feel it? The same pain can be felt more intensively if you are afraid and is easier to bear when you are relaxed.

The fourth layer is pain attitude: how do you handle the pain?

### **Influencing the (sensing of) pain**

The pain stimulus arises during contractions: it cannot be prevented. Pain awareness can be prevented, but that requires medication (see p 70). It is more relevant to say something about sensing pain and how to handle it. These layers can be positively affected without medication, regardless of the location. Any positive effect will often apply to the duration of the birth and potential complications as well. To improve the sensing of pain you should feel comfortable and relaxed, for instance as a result of continuous support from your midwife or doctor, or simply from taking a bath. Because of the danger of infection, you should not take a bath after your waters have broken without consulting your midwife. You can always take a shower. There is a good chance that the contractions will persist as a result of the soothing effect of warm water. For back pains, a hot water bottle (or a massage by your partner) may provide relief. Scents, music or sounds will promote a feeling of relaxation (see p 14).

As for pain attitudes that can have a positive impact on the delivery, look to changing the body position and concentrating

on relaxed breathing. The exercises that you learnt during the pregnancy therapy courses will come in handy, as well as the tips and advice given by your midwife.

Surveys show that a good relationships and communication with the midwife or doctor are a more important factor in explaining overall satisfaction with the birth process than pain treatment. Another reason for including your communication essentials clearly in your birth plan (p 64-66). Make sure to talk about pain during your pregnancy. What will help if you are in pain? And also: what is holding you back, what are you afraid of?

### **Pain relief**

Every woman has the right to be informed about pain, about various relief methods and about the pro's and cons of every method. Only then can a pregnant woman come to an informed decision concerning the preferred method of pain relief. Such a decision will always need to be checked to see if it is the best option.

Another factor influencing the possibility of pain relief is the progress of the pregnancy and the baby's health.

If you want to know more about pain and pain relief, go to [www.knov.nl](http://www.knov.nl) and you will find a leaflet 'Jouw bevalling: hoe ga je om met pijn'.

## Pain relief methods

There are different forms of pain relief, with and without medication. The latter can be used at home. All methods are based on stimulating or restraining certain body functions. Medication will have side-effects: it can influence the delivery and may affect breast-feeding as well as the health of you and your baby. Talk to your midwife or doctor about the possibilities and see whether one or another method is suitable in your situation. This is an area where new developments are occurring all the time. Laughing gas and sterile water injections are just some of the new developments that have not been discussed here.

## Birth TENS

TENS is short for Transcutaneous Electrical Nerve Stimulation. The Birth TENS is a device that sends electrical impulses through electrodes attached to the back. You can adjust the intensity of the impulses yourself: the higher the intensity, the better the pain-relieving effect. The electrical impulses of the TENS do not affect your baby's heart.

More information: [www.geboortetens.nl](http://www.geboortetens.nl).

## Pethidine

Pethidine is a morphine-like medicine that can be given in any hospital at any time through an injection. It works quickly: even the worst pain starts to subside after 15 minutes. So you

can relax in between contractions, rest and deal with the pain better. The effect of the injection lasts for two to four hours. If the pethidine injection is given shortly before delivery, you and the baby may be somewhat drowsy. The baby may encounter difficulties when trying to drink from the breast for the first time.

### Remifentanil

Remifentanil is a powerful, rapidly acting painkiller which, if the delivery has started well and you have dilation, you can administer yourself (but never too much!) with the help of a small pump. You will notice its effect within a few minutes. This will give confidence and relaxation. There is no loss of physical strength, but you may need an oxygen boost. For that reason, you will be watched carefully. And when you no longer need it, the effect will wear off within a few minutes.

### Epidural

In case of epidural/spinal anaesthesia, the anaesthetist injects liquid painkillers. He uses a thin flexible tube through which a new dose of painkillers can be administered, whenever necessary. There are two types of epidurals, depending on where the anaesthetic is administered. The spinal cord is surrounded by membranes. Inside the membranes is the spinal space containing the cerebrospinal fluid. After spinal anaesthesia, you are no longer in control of the muscles in your legs and pelvis and you can no longer push. This makes the spinal unsuitable for natural childbirth, but suitable for a caesarean.

The epidural space is located outside the membranes surrounding the spinal cord. This is where epidural anaesthesia can be administered. You no longer feel the contractions, but you still have control of your muscles. The loss of strength in your legs means you have to stay in bed. A urinary catheter may be inserted and the baby's health will be closely watched.

# Preparation for breast-feeding

You will feel more secure if you know how breast-feeding works and what you can expect when you nurse your baby yourself. There are many books on the subject and you can also look it up on the internet.

On [www.borstvoeding.nl](http://www.borstvoeding.nl) you will find a great deal of information and also a list of various information meetings. The midwife will know all about information meetings on breast-feeding in your area.

You can, of course, ask other women about their experiences.

Request an appointment with a lactation consultant if you expect problems. This could be the case if you had a bad experience breast-feeding a previous child, because you have retracted or flat nipples, you are pregnant with twins or have an artificial breast. The success of breast-feeding is also highly dependent upon the attitude of the partner and close relatives. Fathers who are positive about breast-feeding can give their partners the support they need. It is, for that reason, a good idea that the partners go along to the information meetings. Both parents can learn about how breast-feeding works, latching-on techniques, what signals the baby gives if he is hungry, when he has had enough and how to prevent problems with your breasts, etc. You will learn that breast-feeding starts from the first day, as soon as the baby is put to breast.



### Your breasts are getting ready

During pregnancy, you do not need to prepare your body for breast-feeding. Your body, aided by its pregnancy hormones, does that very well all by itself! As you will notice, your breasts become heavier as the mammary glands begin to grow and the nipples become larger and darker in colour. Some women will notice milk leaking from their breasts. The glands around the areola become more prominent preparing themselves to discharge a sebaceous matter that helps keep the nipple supple and helps prevent infection. Drying the nipples with a rough towel or applying a lotion would disturb this process and is therefore best avoided.

### The importance of breast-feeding

Breast milk adapts to the baby's needs. The baby tolerates breast milk better than formula food and it also contains more antibodies and protein and thus makes an

important contribution to the baby's underdeveloped immune system. The nutrition in the milk is easily absorbed. The fatty acids contained in breast milk play an important part in the development of the brain. Sucking at the breast is good for the baby's jaw and later for his speech. The recommended duration for breast-feeding is at least 6 months. Breast milk contributes to healthy growth and development of the baby and provides protection against many forms of illness. Research shows that there is less chance of cardio-vascular problems, diabetes and obesity later in life. It is essential that breastfeeding gets under way as soon as possible. If the baby cannot drink (enough) from the breast, the mother will be advised to pump. Information on how to use a breast pump is available in the hospital.

### **Breast-feeding and allergies**

If there is a family history of allergies, such as hay fever, asthma or food allergies, your baby may be at an increased allergy risk. For this reason it is advisable to breast-feed for the first six months. It is not necessary to follow a special diet. If however it is not possible to breastfeed or supplementary feeding is necessary, look at the possibility of a hypoallergenic formula food (based on a partial protein hydrolysate) for the first six months. This contains cow's milk protein in such small quantities that there is only a minimal chance of cow milk allergy. Once the baby has been given ordinary formula, the hypoallergenic formula no longer has any preventive effect.

## Pumping breast milk

There is a choice of breast pumps on the market. It is best to wait until after the post-natal period before buying a pump. You can take all the time, and get all the advice that you need to decide which type of pump suits you best. You will learn more about pumping at information sessions on breast-feeding. You can read more on this subject in the following volume of the Growth Guide that is completely dedicated to breast-feeding.



If you don't already have it, ask your midwife or gynaecologist for the Growth Guide volume on Breast-feeding when you are about 24 weeks pregnant.

## Formula

If for whatever reason you do not want to breast-feed your baby, there is a wide choice of formula foods. Your midwife, and then the Youth Health centre, will help to pick the right formula for your child. Get good advice, because frequent diet changes are unsettling for the baby. When preparing formula, always watch out that water and powdered milk are mixed in the right proportions. Tap water in the Netherlands is so safe that that you do not have to boil it first. Throw away the leftovers to avoid infections.

Clean the bottle immediately after use. The best way to do this is as follows:

- Immediately after use, rinse the bottle and the dummy in cold water;
- Wash the bottle and the dummy after every feeding in a dishwasher at at least 55°C. Or wash the bottle and the dummy with a detergent, using a special cleaning brush.
- Leave the bottle and the dummy to dry upside down on a dry, clean cloth.

# The growth of your pregnant tummy

## Getting up in the morning

It will become increasingly difficult to get out of bed with a pregnant tummy. One trick is to first turn onto your side, pull up your knees and throw your legs over the edge of the bed. Then push up your upper body with your hands. There, now you are sitting on the edge of the bed.

## Practice contractions

The further you are in pregnancy, the more often you will experience the muscles of the uterus tightening, and then relaxing again. The uterus can feel as hard as a fully inflated football.

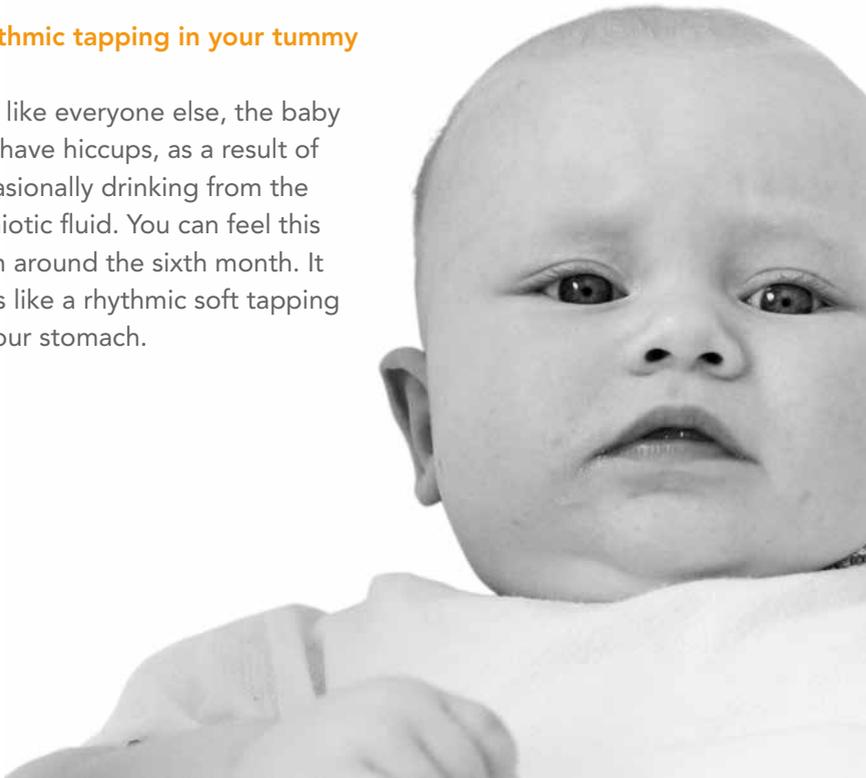
This is known as hard tummy or practice contractions and occurs more frequently as pregnancy progresses. The hard tummy is not dangerous for you or your baby. The muscles have started their own training programme for the delivery that is due a few months later.

In the last weeks before the birth your tummy may go hard when it is touched unexpectedly, when something startles you, or if the baby turns or kicks. If the practice contractions do not subside after a couple of hours, check with your midwife. You may have a urinary infection.

ultrasound

### **Rhythmic tapping in your tummy**

Just like everyone else, the baby can have hiccups, as a result of occasionally drinking from the amniotic fluid. You can feel this from around the sixth month. It feels like a rhythmic soft tapping in your stomach.



# The end of your pregnancy

## Engagement

At the end of your pregnancy, the baby's head moves further down into your pelvis: the baby is 'engaged.' You feel that because the pressure on your pubic bone and pelvis increases and your stomach and lungs have more room. Once the baby is engaged, it is almost impossible for him to change position. This is the final phase before the birth. In a first pregnancy, the baby can engage well before delivery. In subsequent pregnancies, this occurs later and sometimes not until after labour has started.

## The baby's movements

There is less room for the baby and even though he is still moving as much as before engagement for you it may feel different. He is moving his arms and legs around busily, as you will certainly feel. If at anytime you feel less life or movement, always contact the midwife.

## When do you call the midwife?

Talk to your midwife about when to call her. Generally speaking, you will call her when you have had an hour of contractions lasting at least one minute, and coming at intervals of five minutes, unless otherwise agreed with your midwife or gynaecologist.

In subsequent pregnancies, call once your labour is well started. Discuss this beforehand with your midwife. If you start to lose blood (comparable to a menstrual period, or more) always call immediately, unless you appear to be losing the mucus plug. This is not a sign of impending delivery. You do not have to call in as it can still take a couple of days before labour actually sets in. If the waters break, you should always call immediately (day and night) if the amniotic fluid is green or brown or if the head is not yet engaged. Your midwife will tell you about this. If the waters break during the day, you can call in and the midwife will come by later in the day.

If the waters break at night, the head is already engaged and the amniotic fluid is clear (it looks like tap water, with flakes and a bit of blood) call the next morning. If you have contractions, call in.

Do not hesitate to call if you are worried! It is best to call yourself, so the midwife can get first-hand information.



# Delivery

## Losing the mucus plug

During the pregnancy, the uterus is sealed off by a mucus plug. It may let loose, together with some mucus and blood. It looks like a small, waxy plug. The fact that it comes out does not mean that you are now going to have your baby quickly and there is no need to call the midwife about this. Losing the plug sometimes only happens when labour has started, but it can also happen a few days earlier. You may not even notice that you have lost the plug, for example if it happens when you are using the toilet.

## Breaking of the waters

The breaking of the waters can also mark the beginning of labour. You may perhaps feel something snap low in your tummy and suddenly you lose a great deal of water. Or it drips out bit by bit. It then feels like you are losing urine. The difference is that you cannot control amniotic fluid as you can with urine. Moreover, amniotic fluid smells sweet and is generally colourless. See p 80 for when you need to call the midwife.

Do not put your underwear in the wash immediately, put it aside for the midwife to inspect and write down at what time your waters broke. There is now a risk of infection and it is better to avoid taking a bath or having sex. Showering is no problem, and many women love that. Labour generally starts within 24 hours after the waters have broken. In general however the waters do not break until labour has started.

## Dilation contractions

Most deliveries begin with dilation contractions. These generally start calmly, becoming stronger and more regular as labour progresses. They ensure that the uterus opens slowly. Dilation contractions can be felt throughout the lower part of your body: stomach, back and upper legs. They are painful, often extremely painful as you approach full dilation. Once labour has started, a contraction can last for a full minute. They occur regularly, every three to four minutes. A contraction can be compared to a wave. It rolls in, gets up higher and higher and then subsides after reaching its peak. At the peak the pain is especially intense. It quickly subsides, only to return with the following contraction. It may help to count aloud during the painful peak. You count out the pain, as it were. Towards the end of the dilation phase, the labour pains are the strongest. The dilation is almost 10 cm. The midwife checks regularly how the dilation is progressing.

## Hard labour

Once dilation is complete, the baby can start on his journey to the outside world. At this moment -- or just before this -- hard labour starts. This feels like an intense urge to defecate. These contractions can hardly be kept under control. At your pregnancy therapy you will have learned how to push and your midwife will, of course, also tell you what to do. If this is your first baby, pushing will last between one and two hours. For the next baby it will take much less time: 15 to 60 minutes. Between the contractions, there are pauses that last long enough for you to catch your breath and regain energy for the next contraction. Towards the end of the delivery, a part of the baby's head is visible at the peak of every contraction. When

the contraction subsides, the baby's head will also slip back a bit. Each contraction pushes the baby a bit further through the birth canal. The climax of the expulsion is often also the hardest and the most painful, as a large part of the baby's head is now visible and no longer slips back. Luckily however the end of the delivery is now in sight. Just a few more contractions and the baby will be there, on your bare skin. Welcome to the world, little one!

### **It does not always go like this**

If the delivery does not start spontaneously, or if it is not going well, a medical intervention may be necessary. It could be planned, as in the case of induction or a caesarean section, or it could be an on-the-spot decision. If you are giving birth at home or in a maternity clinic, you will have to go to the hospital. Operations like inductions and caesarean sections have pro's and cons. Rest assured that your medical staff will select the option which is best for you.

### **Induction**

Induction involves the administering of a medication to start contractions. This could be an intravenous administration of oxytocin or an endocervical gel containing prostaglandins. Commonly accepted reasons for inductions include a post-term pregnancy (that has gone beyond 42 weeks), high blood pressure, infection, if the contractions do not start although some time has passed since the breaking of the waters, in the case of placenta malfunctioning or fetal growth retardation.

## Vacuum pump

The vacuum pump is used if there is no other way of pushing the baby out. It is like a suction cap and is placed on the visible part of the head. The air is drawn out of the cap through a tube, creating a vacuum. The gynaecologist will pull on the cap gently as you are having a contraction. Placing the cap is an unpleasant experience and may lead to bruising or haemorrhaging in the baby's face. It may also cause a headache on the first day, usually treated with paracetamol.

## Caesarean section

There are several different possible reasons for a caesarean section. It could be planned (for instance if the baby is in a breech position) or unplanned (for instance if there is insufficient dilation or if the baby is not responding well). If it is medically OK, you can have an epidural anaesthesia and you will have a ringside seat for the delivery.

The cut to be made is usually below the so-called bikini line. In a real emergency, the doctors may decide to apply full anaesthesia. In most cases, your partner will be allowed to be present at the operation. The paediatrician will be there too and will take the baby (and your partner) to a warmer room immediately after birth: operation rooms are cold.

It may be possible for you to hold the baby to your body and keep it there for a while. This has been proven to be conducive to the baby's health. Check to see if this is possible.

From the operation rest room you will return to the maternity ward. If you wish, you can put the baby to your breast immediately. Depending on the condition of you and your baby, you can return home after less than a week. At home, you will benefit from post-natal assistance for the remainder of the post-natal period.

Recovering from a caesarean section usually takes longer than from a normal delivery. You have a deep cut in your stomach. If you were under anaesthesia, that will require additional recovery time. Be careful with lifting and allow yourself enough time to recover fully. To allow the uterus to recover completely, it is recommended that you do not become pregnant again within a year. The next delivery is not necessarily a caesarean section. But it will be in a hospital, under the supervision of a gynaecologist, so that the old wound can be watched carefully. Depending on the reason for the caesarean section, the pregnancy checks can usually be carried out by the midwife.

First photo of your  
new-born baby

# The baby is born!

## Umbilical cord

After the birth, the baby is put on the mother's bare stomach for the first pleasant body-to-body contact. He is still connected to the mother via the umbilical cord. Immediately after birth, blood is still flowing through the umbilical cord to the baby. The baby now starts to breathe by himself and no longer needs this connection. After a few minutes, the umbilical cord stops 'beating': the blood stops flowing through it. Using an umbilical clamp, the umbilical cord is disconnected and then cut, often by the partner.

## Placenta

A few minutes after the baby is born, the afterbirth (placenta) follows. Sometimes, it slides out easily, but generally the mother has to help it along by pushing briefly. The midwife sometimes administers an injection to speed up the passage of the placenta. As soon as the placenta is out, the midwife checks it to see if it is intact and complete. No remnants must be left behind in the uterus because they can cause infections or subsequent bleeding.

## Stitches

During the birth, the edges of the vagina may tear slightly. Sometimes the midwife will make a small cut so that the baby can be delivered more quickly. Once the placenta has been delivered, the midwife will then stitch up the wound. The stitches



will dissolve by themselves after a few weeks. External stitches will be removed after a week during a check-up.

### Checking the uterus

In the hours after delivery, the midwife and the maternity assistant will pay close attention to the contraction of your uterus. They do this by pressing the tummy right above your navel with a flat hand. The uterus was stretched considerably during the pregnancy and must now contract well. These contractions ensure that the blood vessels going to the placenta are shut off, thus preventing further blood loss.

Breast-feeding helps to make the uterus contract even faster, causing less loss of blood.



### Urinating

The uterus can only contract well if your bladder is empty. So it is important for you to urinate regularly, around every three hours. After the delivery, it is best to empty your bladder as quickly as possible. If it hurts or stings, it sometimes helps to pour lukewarm water along your vagina or to urinate while under the shower. If you have given birth at home and you do not succeed in urinating within six hours, you should call your midwife.

## Breast-feeding for the baby

Newborn babies are generally wide awake and alert during the first hours after birth and they immediately have a strong sucking instinct. The faster the baby is put to your breast after birth, the better it is for you, so that the uterus can contract and the baby can get used to the breast. Milk production then generally gets under way quickly. In the volume on 'Breast-feeding' in the Growth Guide series, you will find more information on breast-feeding and how you can put the baby to your breast. If you have not received this booklet by the time you are 24 weeks into your pregnancy, ask your midwife or gynaecologist.

## After-pains

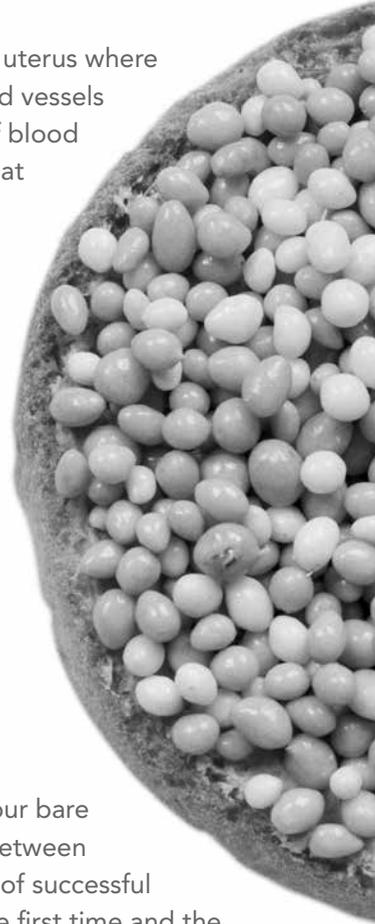
The contractions of the uterus after the birth are called after-pains. These may be rather painful. Urinating often relieves the pain. After-pains are often more severe after a second or third delivery than after the first one. You can treat the after-pains in the same way as the labour pains during the delivery. Sometimes, a hot-water bottle helps. If you are in severe pain, you may take paracetamol. That is not harmful for breast-feeding. In the information leaflet, you can read how much paracetamol it is safe to take.

## Bleeding

After the delivery there is a wound left in the uterus where the placenta was attached. Through the blood vessels that fed the placenta you lose a good deal of blood immediately after the birth and in the days that follow. At first, this blood is bright red; as the days progress, it becomes darker in colour. Sometimes you may lose sizeable clots. No reason for alarm, but it is something to mention to the midwife or the maternity nurse. The nurse will generally ask you to save your sanitary towels or napkins, so she has an idea of how much blood you are losing. The amount of blood loss will reduce after a few days, but you may continue to lose a small amount of blood each day for up to six weeks after the delivery.

## After delivery

After the delivery, the bare baby will lie on your bare skin for at least an hour, generating a bond between mother and child and improving the chances of successful breast-feeding. Once the baby has fed for the first time and the midwife has completed all her examinations, you will most likely want to take a shower. The maternity nurse will keep an eye on things. You have, after all, just put in a major effort and are



undoubtedly a bit wobbly. If, after the delivery, you are able to shower by yourself and go to the toilet, it is a good idea to do that. If the midwife decides that it is better for you to stay in bed for a while, you will get help to urinate in a bedpan and she will give you a bed-bath. Then it is time to relax and, together with your partner, enjoy the little newcomer.



# Checking the baby after birth

As soon as the baby is born and the umbilical cord has been cut, the midwife or the doctor checks the condition of the baby. In doing this, special attention is paid to the following:

## Apgar score

This test is done immediately after birth. It was developed around 1950 by doctor Virginia Apgar and consists of five simple checks:

- heartbeat
- breathing
- muscle tension
- reflexes
- skin colour.

For each of these criteria, the baby is given a maximum of two points, which are then added up. The optimum Apgar score is, therefore, 10 points. The test is repeated after five and ten minutes and most babies then score higher than the first time.

## Skin colour

As soon as the baby has left the uterus, his body must take care of itself. That is a huge transition and a great physical effort for the baby. The maternity nurse will check regularly to see how he is doing. She checks the baby's colour and his breathing. This will indicate how the lungs are functioning. It is normal for the baby's colour to turn from blue to pink in a few minutes.

## Vitamin K

After birth, the baby is given a single, agreed quantity of Vitamin K, to assist coagulation. This will be enough for the first week of his life. Then (if he gets breast-feeding) he needs drops of Vitamin K (150 mcg) and Vitamin D (10mcg). Vitamin D promotes the absorption of calcium by the bones.

## Weight and temperature

The baby is weighed and his temperature is taken. The average weight of a full-term baby is around 3500 grams. The temperature should be between 36,5 °C and 37,5 °C. During the first few days, the baby needs help to stay at the right temperature.

## Urine and faeces

In general, babies urinate and defecate within 24 hours after birth. The first faeces are a black, sticky mass. This is called meconium. This can also happen just before or during the birth. Meconium consists of waste products that the baby has collected in his intestines while in the uterus. Two or three days after birth, all of the meconium will have gone and the baby's defecation becomes normal. Breast-fed children seldom suffer from constipation, because breast milk is a laxative.

## Heel prick

In the first week after the birth, the midwife or a well-baby clinic staff member will come to your house to do the heel- prick test. If the baby is still in the hospital, he will have the heel-prick test done there. The baby' s heel is pricked with a special device. A small amount of blood is then collected and examined in the laboratory for 18 rare but serious conditions. This is an important test! It is aimed at detecting conditions that, without treatment, can cause serious damage to the physical and mental development of a child. Some examples: thyroid and the adrenal gland disease, hereditary blood disease (sickle-cell anaemia, thalassemia) and various metabolic diseases. Most of them are hereditary and, fortunately, do not occur often. If they are detected on time, they can be treated with medication or a diet and the damage to the child is limited. The blood is also tested for another serious hereditary disease: cystic fibrosis. Early detection will allow earlier treatment, offering the child a longer life expectancy with a better quality. If the results of the blood test are good, you will not be informed. Go to [www.erfelijkheid.nl](http://www.erfelijkheid.nl) and [www.ncfs.nl](http://www.ncfs.nl) for more information. If you want to see a video about the heel prick, go to [rivm.hielprik.nl](http://rivm.hielprik.nl)

## Carriership

If the blood test shows that your child is a carrier of a hereditary disease, he is usually not sick. It does mean however that one or both of his parents are carriers of this disease. They do not have the disease themselves, but can pass it on. That can have

consequences for a subsequent pregnancy. Your midwife can tell you more about this. If you want to receive information on possible hereditary sickle-cell disease carriership, please inform the person doing the heel-prick.

More information? [www.rivm.nl/hieiprik](http://www.rivm.nl/hieiprik) and [www.hieiprik.nl](http://www.hieiprik.nl).

### Hearing test

In the first month following birth your baby will have a hearing test, usually at the same time as the heel prick. The aim of the test is to find out if your baby's hearing is good enough to learn to talk. The well-baby clinic nurse will insert a soft plug into your baby's ear and connect it to a monitor. The test takes a few minutes and is painless. Your baby will not even notice and usually sleeps through it. The outcome is known immediately. In 95% of the cases, the outcome is positive. If the outcome is not positive, the test is repeated after a week and maybe again after that, using a different device. It does not have to mean that your child's hearing is not good. There will be further tests in an Audiology Centre.

# You are now parents

The delivery is over and now the post-natal period begins. You and the baby are now slowly and gradually starting to get used to each other. Very close to you there is a small person, with his own personality, temperament and possibilities. This is the time to get to know your child better. The baby already knows you, and keeps giving you signs and signals that you can react to. Both parents need to take the time to learn how their baby gives these signals and how satisfied he is when you show him that you recognise his way of making contact. His physical and psychological development is largely in your hands. The midwife will come a few more times to check on you and your baby's health. The maternity nurse will help you during a number of days to look after your baby yourself. She can give you all the information you need concerning the care for your baby and parenthood. They know so much! You will see how your confidence increases.



Six weeks after birth, you may visit the midwife or the gynaecologist for your final check up. Make the appointment on time. Contraception will be one of the subjects discussed during this check up. As a preparation, you may find it useful to look up [www.anticonceptie.nl](http://www.anticonceptie.nl) and [www.anticonceptiekompas.nl](http://www.anticonceptiekompas.nl)

To find more information about the next phase of life with your baby, read the volume on 'Post-natal Period' of the Growth Guide. A list of websites for more information is included. In addition, there is space for notes by your midwife or gynaecologist, or for questions that you would like to ask the midwife.

## Registering the baby

Dutch law requires that you register your baby within three working days. If you are late, you will need special official authorisation. Registration is with the registry in the baby's place of birth. If your baby was born in a hospital outside your own municipality, you need to register the baby with the registry in the municipality of the hospital. Registration can be done by the father or any person in attendance at the birth.

## Health insurance

Within four months after birth, you need to register your baby for health insurance. Even though the basic health insurance is free for children up to the age of 18, they are not automatically covered by their parents' insurance policy. You are completely free in your choice of basic health insurance. If you have taken out supplementary insurance for yourself, it is probably wise to register your child with your own insurance company. Some insurance companies will offer the supplementary insurance to children free of charge.





# Websites



## General

[www.groeigids.nl](http://www.groeigids.nl) with a personal section for your child(ren)

or browse for:

<cjg name of your own municipality>

## Prenatal diagnostics

[www.strakswangerworden.nl](http://www.strakswangerworden.nl)

[www.zwangerwijzer.nl](http://www.zwangerwijzer.nl)

## Heredity

[www.zwangerwijzer.nl](http://www.zwangerwijzer.nl)

[www.rivm.nl/hiehprik](http://www.rivm.nl/hiehprik)

[www.vsop.nl](http://www.vsop.nl) (Vereniging Samenwerkende Ouder en Patientenorganisaties bij erfelijke en/of aangeboren aandoeningen [Society of Collaborating Parent and Patient Organisations for hereditary and/or congenital diseases])

## Smoking, alcohol and nutrition

[www.rokeninfo.nl](http://www.rokeninfo.nl)

[www.stap.nl](http://www.stap.nl) (Nederlands Instituut voor Alcoholbeleid)

[www.alcoholenzwangerschap.nl](http://www.alcoholenzwangerschap.nl)

[www.voedingscentrum.nl](http://www.voedingscentrum.nl)

[www.fasstichting.nl](http://www.fasstichting.nl) (Foetaal Alcohol Syndroom Stichting Nederland)

[www.alcoholinfo.nl](http://www.alcoholinfo.nl), also via tel. 0900 500 20 21 (€ 0,10 per minute)

### **Pregnancy and drugs**

[www.drugsinfo.nl](http://www.drugsinfo.nl) (Trimbos Instituut)

[www.mainline.nl](http://www.mainline.nl) (Stichting Mainline)

### **Breast-feeding**

[www.borstvoeding.nl](http://www.borstvoeding.nl)

[www.richtlijnborstvoeding.nl](http://www.richtlijnborstvoeding.nl)

### **Fathers**

[www.ikvader.nl](http://www.ikvader.nl)

[www.jongvader.nl](http://www.jongvader.nl)

### **Other information:**

[www.rijksoverheid.nl](http://www.rijksoverheid.nl)

[www.kraamzorg.nl](http://www.kraamzorg.nl)

[www.kinderopvang.pagina.nl](http://www.kinderopvang.pagina.nl)

[www.socialezekerheid.nl](http://www.socialezekerheid.nl)

[www.soa.nl](http://www.soa.nl)

[www.hivnet.org](http://www.hivnet.org)

[www.gezondebaby.nl](http://www.gezondebaby.nl) (RIVM)

[www.stichtinglichaamstaal.nl](http://www.stichtinglichaamstaal.nl)

[www.anticonceptiekompas.nl](http://www.anticonceptiekompas.nl)

[www.trimbos.nl](http://www.trimbos.nl)

[www.apotheek.nl](http://www.apotheek.nl)

[www.defysiotherapeut.com](http://www.defysiotherapeut.com)

[www.lareb.nl](http://www.lareb.nl) (about medication)

[www.rhesusprik.nl](http://www.rhesusprik.nl)

**Professional organisations:**

[www.knov.nl](http://www.knov.nl) (KNOV - Koninklijke Nederlandse Organisatie van Verloskundigen - Royal Dutch Organisation of Midwives)

[www.nvog.nl](http://www.nvog.nl) (Nederlandse vereniging voor obstetrie en gynaecologie, NVOG[Dutch Society for obstetrics and Gynaecology]).

[www.cvz.nl](http://www.cvz.nl) (College voor Zorgverzekeringen [Board of Healthcare Providers])

[www.nvl.nl](http://www.nvl.nl) (Nederlandse Vereniging van Lactatiedeskundigen)

**Parenting support:**

[www.positiefopvoeden.nl](http://www.positiefopvoeden.nl)

[www.nji.nl](http://www.nji.nl) (Nederlands Jeugd Instituut)





# Colophon

The Growth Guide is a publication by the Municipal Health Service [GGD] Amsterdam.

The Guide consists of seven volumes:

- Planning for Parenthood
- Pregnancy
- Breast-feeding
- Post-natal period
- 0-4 years old
- 4-12 years old
- Adolescence

Together, these seven volumes make up the Growth Guide but they can also easily be used separately.

The following organisations have collaborated on the texts of the Growth Guide: Various midwife practices in Amsterdam, Eerste Lijnszorg [Primary Care] Amsterdam (ELA account midwife), Amsterdamse Kring van Verloskundigen [Circle of midwives], Koninklijke Nederlandse Organisatie van Verloskundigen (KNOV), various agencies for post-natal care in Amsterdam, Vereniging voor Borstvoeding Amsterdam [Breast-feeding Society], Jeugdgezondheidszorg [Youth Health care Services] Amsterdam Thuiszorg [Home Care], Jeugdgezondheidszorg GGD [Municipal Health Service] Amsterdam, Jeugdgezondheidszorg GGD Hollands Midden, Bureau Jeugdzorg Agglomeratie Amsterdam, pedagogic advisors from parenting support centres in Amsterdam, various parents.

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