



Pregnant!

National brochure with
information and advice
from midwives,
general practitioners
and obstetricians

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This brochure contains general information for pregnant women and their partners. The information herein was collected by the following organisations: the Dutch Society for Obstetrics and Gynaecology (NVOG), the Royal Dutch Organisation of Midwives (KNOV), the Dutch College of General Practitioners (NHG), the Erfocentrum, the Dutch Child & Hospital Foundation (K&Z), College Perinatale Zorg (Perinatal Care Board) and the National Institute for Public Health and the Environment (RIVM).

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the Royal Dutch Pharmacists Association (KNMP), the Netherlands Nutrition Centre, Centre of Expertise Maternity Care, and the Dutch Patient Alliance for Rare and Genetic Diseases (VSOP).

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Pregnant!

Being pregnant is very special. You will probably have many questions about your pregnancy and the various check-ups you will be invited to attend. What should you expect during a visit to the midwife, general practitioner (GP) or obstetrician? What tests and examinations are available? What about your diet, sport, work and taking medicine? This brochure offers information about these and many other topics. During pregnancy, you may experience pregnancy-related symptoms. These too are described in this brochure.

Changes

Pregnancy is a period of significant changes, both physical and emotional. Every woman will experience being pregnant differently. Some feel better than ever for nine months, while others may have some health problems. Some can continue working as usual until six weeks before the due date, while others have to adjust their activities somewhat sooner. You may experience emotional changes such as mood swings. For most women and their partners, pregnancy is a happy time. However, there can be concerns about relationships, work, finances or the course of the pregnancy itself.

Care during pregnancy

In the Netherlands, expectant mothers receive expert care throughout pregnancy and childbirth, provided by a midwife or a general practitioner who practises obstetrics. They are specially trained to oversee a normal pregnancy and birth. If you require specialist care during either pregnancy or childbirth, you will be referred to an obstetrician at a nearby hospital. There is good cooperation between midwives, GPs and gynaecologists, so you can count on good care for you and your child.

About this brochure

This brochure contains general information about what pregnant women can normally expect in terms of care and information. In all cases, however, written information just supplements the details provided during the interview with the midwife, GP or gynaecologist. In this brochure, we use the term 'healthcare professional'. This may refer to a midwife, your general practitioner or an obstetrician, depending on your situation. Although the brochure focuses on you, the expectant mother, much of the information it contains is also relevant to your partner.

There is a lot of additional information available. A list of websites and other sources is included at the end of this brochure. If you have any further questions, your healthcare professional is there to help.

1 The first visit to the midwife or obstetrician

Pregnant? Make an appointment as soon as possible

As soon as you suspect or know that you are pregnant, you should make an appointment with the midwife or obstetrician as soon as possible. He or she will inform your GP.

You must be careful when taking medicines during pregnancy. You should therefore inform your pharmacist that you are pregnant.

What will the midwife or obstetrician discuss with you?

Your first visit to the midwife or obstetrician will usually involve a short physical examination. She (or he) will measure your blood pressure and may wish to check the size of your uterus. You will have an opportunity to discuss the following aspects:

- **Due date.** During your first or second visit, you will be offered an ultrasound examination (also known as a sonogram or 'echo'). This will help the midwife or obstetrician to determine how long you have been pregnant. The ultrasound also shows whether the baby's heart is beating normally, and whether there is more than one baby: you may be expecting twins! To calculate your 'due date', the midwife will ask whether your last period was normal and on time. You may find it useful to write down the date of your last period and the date on which you stopped taking the contraceptive pill (if applicable) and take these notes with you to the appointment.
- **Previous pregnancies.** The midwife or obstetrician will ask whether this is your first child. If not, you will be asked about the course of previous pregnancies: were there any problems?
- **Your health and the health of your partner.** To form a general impression of your health, the midwife or obstetrician will ask about your medical history: any diseases you have had, operations and treatments, and whether you have ever received a

blood transfusion. Have you been taking medication in the last few months? Do you have any current health complaints? She will also ask whether you smoke, drink alcohol or use drugs, or have done so in the past.

- **Health of your family members.** You will be asked about the health of both your own family and your partner's family. Is there any history of diabetes, cystic fibrosis, spina bifida, Down's syndrome, muscular disorders or heart defects, for example?
- **Your personal situation.** Do you live alone or with a partner? What does your work involve? What hobbies do you have? You should tell the midwife about any unusual circumstances and keep her informed of any subsequent changes, e.g. in your relationship, finances, home or work situation.
- **Your work circumstances.** Ask your employer about any occupational risks to you or your unborn child.
- **Tests and examinations.** Your healthcare professional will explain the blood tests (see page 20) and will discuss the optional screening for Down's syndrome (see page 24) and the optional 20-week ultrasound scan (see page 24).

Ask questions

You are encouraged to provide as much information as you can and to ask any questions you may have. You may find it useful to write down your questions before the appointment so that you don't forget. You are welcome to bring your partner or a friend/family member to any appointment.

2 Check-ups during pregnancy

From once every four weeks to once a week

Your midwife or obstetrician will monitor the course of your pregnancy at regular intervals. Usually, you will be invited for a check-up every four weeks during the first half of the pregnancy. The frequency then increases to weekly appointments as the due date approaches. However, this is only a general indication: more or fewer appointments may be scheduled depending on your personal situation.

What do these check-ups involve? First, your midwife or obstetrician will ask how you are feeling and how you are experiencing the pregnancy. Once again, you are encouraged to ask any questions you may have. Towards the end of your pregnancy, you will discuss the birth itself and any wishes and expectations you may have.



Physical examination

Every appointment includes a physical examination:

- Your abdomen and uterus will be checked to ascertain that your baby is growing normally.
- From the third month onwards, the midwife will also check the baby's heartbeat.
- In the final months of pregnancy, the midwife or gynaecologist will assess your child's position. During the last few weeks, checks are made to see whether the baby has settled properly into the pelvis.
- Your blood pressure will be measured. Low blood pressure during pregnancy is not a cause for concern but can cause some minor problems, such as feeling faint or dizzy when standing up. High blood pressure does not cause any symptoms but will require extra care for you and your baby.

Your healthcare professional may wish to conduct an additional ultrasound as a precaution, especially if:

- there is any doubt about the size and growth of your baby.
- you have experienced unusual blood loss.
- the position of the baby cannot be determined by external examination.

Look on page 35 to see which symptoms mean you should contact your midwife or obstetrician immediately.

Please remember to bring your progress chart to every appointment!

3 Health during pregnancy

When you are pregnant, looking after your health becomes more important than ever. After all, your health affects that of your baby. You can expect many physical changes. Most are a normal part of being pregnant but may nevertheless cause some anxiety.

This chapter describes some of the most common health problems experienced by expectant mothers and offers advice about how to ensure a healthy pregnancy. If you have any questions, your healthcare professional is there to help.

Haemorrhoids

Haemorrhoids (piles) are enlarged and swollen blood vessels in or around the lower rectum and anus which can cause itching and pain. Unfortunately, they are very common during pregnancy. Pressure can worsen the symptoms and it is therefore advisable to ensure regular, soft bowel movements (see page 16).

Alcohol

Women who are pregnant, who wish to become pregnant or who are breastfeeding are strongly advised not to drink alcohol. Drinking alcohol during pregnancy is harmful to the foetus. For further information, see www.stap.nl (includes information in English) and www.alcoholinfo.nl.

Contagious diseases

If you contract an infectious disease during your pregnancy, this may have consequences for the health of your unborn child. If you have been in contact with anyone with a childhood illness such as chickenpox, rubella or fifth disease, or another contagious disease, contact your midwife or obstetrician.

Cytomegalovirus (CMV) can also be harmful to your unborn child. The virus is commonly found in the saliva and urine of young children. Good hygiene practices are important to reduce the risk of catching contagious diseases including CMV, such as washing hands with soap after wiping children's noses or changing nappies. It is also advisable to avoid sharing cutlery with your child, or to put your child's dummy in your mouth, for this reason.

Blood loss

Inform your healthcare professional if you experience any loss of blood (vaginal bleeding) during pregnancy. There is no need to panic: blood loss is relatively common during pregnancy, particularly during the first three months. There are several possible causes, such as the fertilized egg implanting itself into the womb or a small abrasion to the cervix. Blood loss can sometimes be due to a miscarriage.

Heartburn

Some expectant mothers experience frequent or severe acid indigestion ('heartburn'). It is often made worse by drinking coffee, orange juice or fizzy drinks, or by eating fatty foods. Try cutting these out of your diet. If this does not relieve the problem, ask your midwife or obstetrician for advice.

Drugs

You are strongly advised to avoid all (recreational) drugs during pregnancy. The use of soft drugs (marijuana, weed, hash) can seriously harm your baby, especially in combination with alcohol or tobacco. Hard drugs, such as cocaine, ecstasy (XTC) and heroin, are dangerous to unborn babies. As yet, there is insufficient research on which to base any statement about the safety of eating 'magic mushrooms' while pregnant. Depending on the drug concerned, your baby could be born with a congenital defect, a developmental disorder or withdrawal symptoms.

If you use hard drugs, stopping during pregnancy can cause withdrawal symptoms in the unborn child. Always seek professional help and advice.

For more information about drugs see www.drugsinfo.nl or www.mainline.nl.

Emotions during pregnancy

For most women, pregnancy is a time of great changes. It can bring about many different emotions for you and your partner. Those emotions can be either positive or negative. If the negative emotions dominate, you should discuss them with a professional such as your midwife or obstetrician. You can find information about stress and mental health problems during pregnancy and afterwards at www.lkpz.nl.

Folic acid

Taking folic acid reduces the risk of your child being born with a neural tube defect, cleft lip or cleft palate. You are probably already taking a folic acid supplement. If not, and if you are still in the early stages of pregnancy, it is not too late to start. You should take folic acid until the tenth week of pregnancy (i.e. ten weeks after the first day of your last period). The recommended dose is 0.4 or 0.5 milligrams per day. Folic acid tablets can be obtained 'over the counter' from any pharmacist or high street chemist: no prescription is required. For further information (in Dutch), see www.strakswangerworden.nl.



Braxton Hicks contractions

You may experience sudden spasms of the uterine muscles. These are termed Braxton Hicks contractions (popularly known as 'practice contractions'). Occasional contractions are not a cause for concern. However, if you experience them regularly or with increasing frequency, it is advisable to inform your midwife or obstetrician.

Gardening and the litter box (toxoplasma)

Toxoplasmosis is a disease that can be harmful to your unborn child. If you have had toxoplasmosis in the past, then you will have immunity against future infection. The disease is caused by a parasite which is found in the faeces of cats (particularly kittens). The parasite can therefore also be found in sand pits. Wear gloves when cleaning the cat litter tray and while gardening, and wash your hands afterwards. Also wash your hands and those of your children, also after they have been playing in the sand pit.

Avoiding eating raw meat and unwashed fruit and vegetables also helps to prevent you catching toxoplasmosis (see page 18). For more information (in Dutch) on toxoplasmosis, see www.rivm.nl/toxoplasrose.

Medicines

Always tell your healthcare professional about all the medicines you are taking, whether prescription drugs or 'over the counter' remedies (self medication). You must exercise extreme caution in taking any pharmaceutical product. Some can influence the baby's development even in the earliest stages of pregnancy. You should therefore tell a doctor or specialist who is treating you, your dentist and pharmacist that you are pregnant.

If you have pain, you can take paracetamol without worry. See the patient information leaflet for the dosage. If you need to take paracetamol for several days you should discuss the problem with your midwife or obstetrician. Use other painkillers only after talking to your midwife or obstetrician. A sedative for treatment by a dentist is not a problem, but do tell your dentist that you are pregnant.

Nausea

You may experience nausea and vomiting during the first three to four months of pregnancy, especially early in the day ('morning sickness'). It is often worse if you haven't eaten. You should therefore start the day with a light breakfast. After that, try to divide your food intake into several small meals. You will soon discover which foods you can tolerate best.

Tiredness

You may feel very tired, especially during the first three months of pregnancy. Many women feel that they need more sleep. This is usually due to hormonal changes and is only very rarely associated with anaemia.

Pigment spots

Exposure to ultraviolet light (sunlight or a sunbed) may cause brown patches on your face, known as melasma or 'the mask of pregnancy'. You should stay in the shade where possible. Do not use a sunbed; wear a hat and apply a sunscreen lotion when outdoors. If you do develop pigment spots, they will usually disappear after the pregnancy.

Frequent urination

When you are pregnant, you will probably feel the urge to urinate more often than usual. As your womb expands, it exerts greater pressure on the bladder. If you need to urinate very often and you experience a burning sensation when you do pass water, you may have a bladder infection. Take a urine sample to your GP for testing. If you do have an infection, he or she will prescribe medication.

Smoking

Expectant mothers, women trying to become pregnant and those who are breastfeeding are strongly advised not to smoke. If you do smoke, stop now – and that goes for your partner too! You will both find it far easier to quit if you support each other. Smoking during pregnancy carries a serious risk. Cigarette smoke contains harmful substances which can impede the flow of blood to the placenta. The unborn baby therefore has less oxygen and may not grow as much as he or she should. Babies whose mothers smoke are often more vulnerable than others. More often than other children:

- they have a lower birthweight;
- they are more likely to be born prematurely;
- they are more likely to suffer from childhood asthma.

Secondhand smoke can also have an adverse effect during pregnancy. Moreover, there is some evidence to suggest that cot death (sudden infant death syndrome) is more frequent among babies who are exposed to smoke.

If you need help to quit smoking, ask your healthcare professional. See also www.rokeninfo.nl.

Backache and pelvic pain

During pregnancy you may experience pain in the (lower) back or pelvic region. Good posture may help to alleviate the symptoms. If not, seek advice from your healthcare professional. Gentle exercise is also good for you. Some general advice:

- Bend your knees when stooping or lifting.
- Support your lower back with a cushion when sitting.
- If you have difficulty getting out of bed, first turn onto your side and then lift your upper body sideways from the waist.

Chemicals and other hazardous substances

Daily life brings you into regular contact with chemicals contained, for example, in cleaning products, do-it-yourself products, cosmetics, pesticides or children's toys. You may also be exposed to inhaled chemicals from new flooring or wet paint.

If you are pregnant, it is important to be aware of the risks involved when dealing with chemicals. Your unborn child is sensitive to these external influences. Not all chemicals are harmful, and the harm they can cause will depend on the type of substance and the degree of exposure.

For this reason, always read the labels of chemical products. Try to limit your exposure to these sorts of products as much as possible. Further, it is important to ventilate your home regularly, by opening windows or ventilation grilles.

Sex

Intimacy and sexuality can be experienced differently during pregnancy. This varies from one person to another and even from pregnancy to pregnancy. In a normal pregnancy, there are no firm rules or guidelines. Sexual intercourse cannot cause a miscarriage and will not harm the baby.

If you have any questions or problems with regard to sex during pregnancy, you should discuss them with your healthcare professional. He or she can then take them into account during any physical examinations and during childbirth itself. You should also mention any previous unpleasant sexual experiences, or if you should have any problems with having an internal examination.

Varicose veins

Some women develop varicose veins during pregnancy, usually on the lower legs although they can also affect the labia. Try to remain active and avoid lengthy periods of sitting or standing still. When you do wish to sit or lie down, elevate your legs using a footstool or cushion. Well-fitting elastic support stockings can also help to reduce the risk of varicose veins. If they do occur, they will generally shrink once the baby is born.

Sports

You can continue to play sports during pregnancy unless you start to feel more tired than usual or you experience any specific problems. Try not to exert yourself more than you did before you were pregnant. Ensure that you drink enough fluids.

Swimming, cycling, walking and fitness exercises can all be continued until the very last days of pregnancy. However, you should avoid sports in which there is a risk of physical contact, especially with the abdominal region (your 'bump'), or in which you may fall: hockey, volleyball, football and skiing, for example. Scuba diving is discouraged during pregnancy.

Radiation

An MRI scan during pregnancy carries absolutely no risk to you or your baby. Similarly, there is no evidence to suggest that (computer) monitors, television screens or microwave ovens have any harmful effects in normal use. But if you are referred for an X-ray examination, you must inform the radiographer that you are pregnant. In many cases it will be possible to postpone the investigation until after the baby is born. Alternatively, your uterus can be shielded so that the baby is exposed to as little radiation as possible.

Vaginal discharge

Vaginal discharge often increases during pregnancy. This is normal but check with your healthcare professional if the discharge has an abnormal smell or colour, or if you experience itching, pain or a burning sensation. These can all be signs of an infection. If necessary, you will be prescribed medication.

Holidays and long journeys

Inform your healthcare professional if you are planning to travel abroad. If you intend to visit a country outside Europe, contact your GP or Municipal Health Department (GGD) for travel advice and any necessary vaccinations. You must inform them that you are pregnant. There are no medical grounds to preclude expectant mothers from flying. However most airlines will not carry passengers who are more than 32 weeks into pregnancy, simply because they would prefer you not to give birth while in the air. (Some apply a 34-week limit.)

Constipation

Your digestive system works more slowly during pregnancy. You may therefore find that you have to visit the lavatory less often and that your stools are harder. A high-fibre diet which includes raw vegetables, fruit and wholemeal products can help. You can also try adding bran to your regular meals. You should drink about two litres of fluid every day and maintain a reasonable level of physical activity.

Vitamin D

Your body is able to make its own vitamin D, but needs sunlight to do so. It is therefore advised that you spend time outside every day to be exposed to sufficient sunlight. In 2012, the Health Council of the Netherlands concluded that pregnant women do not have an increased need for vitamin D, as such. Nevertheless, it does advise all pregnant women to take 10 micrograms of vitamin D per day, 'just to be sure'. Whether or not you choose to do so, is up to you. The main reasons for taking extra vitamin D are if you don't get out in the sun much (less than half an hour per day),

if you are often veiled, or if your skin is not exposed to the sun, for instance if you wear makeup with a sun protection factor. If you have a dark skin tone, you need to spend more time in the sun to make enough vitamin D. However, pregnant women with a dark skin tone are advised to take vitamin D supplements. Do not take more than 10 micrograms per day, unless your doctor tells you otherwise. Some foods also contain vitamin D. These include fatty fish, such as salmon or mackerel, as well as soft margarine, meat and eggs. Remember that the amount of vitamin D you get from food is not enough to meet your daily needs.

Vitamin Pills

Provided you have a healthy and varied diet, vitamin pills are unnecessary. If you nevertheless wish to take vitamin pills, choose multi-vitamin pills which are formulated especially for expectant mothers. These supplements contain an adapted amount of vitamin A. Too much vitamin A can damage your child's health. Check whether the supplement contains vitamin D. If it does, you will not need to take any extra vitamin D (see the previous section).

Fluid retention

Your body retains more fluid when you are pregnant and this may cause swollen feet and ankles. The problem is often worse in warm weather or if you remain inactive for lengthy periods. Take adequate exercise and elevate your legs while sitting or lying.

Diet and nutrition

Eating a healthy, balanced diet

It is important to eat a healthy, varied diet during pregnancy. It is not necessary to "eat for two". If you have a varied diet, according to the 'Wheel of Five', you will be getting your required nutritional intake (see www.voedingscentrum.nl/zwanger for further information (in Dutch)).

A few tips:

- Eat a variety of fruit and vegetables.
- Eat a variety of meat, fish and meat substitutes.
- Ensure you are getting enough iron. Iron is found in red meat, fish, poultry, eggs and many meat substitutes. Aim to slightly increase your intake of these during pregnancy to reduce the risk of iron-deficiency anaemia.
- Eat fish once a week, preferably oily fish. The fatty acids found in fish are important for the development of the nervous system and vision in the foetus. However, some fish are better to avoid. For more information (in Dutch), visit www.voedingscentrum.nl/zwanger.

Are you vegetarian? You can manage without meat or fish without any problems, providing you ensure you eat meat substitutes and other foods to ensure the right nutritional balance. Meat substitutes are important for vegetarians to ensure you get enough iron, vitamin B1 and B12. B vitamins are mainly found in whole grains, potatoes, legumes, eggs and dairy products. Eggs and pulses, as well as meat substitutes, are also good sources of iron (read the product label for specific nutritional information).

Are you vegan? It would be advisable to visit a dietician for recommendations regarding diet during pregnancy.

What food and drink should you avoid during pregnancy?

- Raw eggs, and products containing raw eggs;
- Unpasteurised milk – milk bought in the supermarket is pasteurised or heat treated and is safe to drink (look at the label to ensure it says ‘pasteurised’ or ‘heat treated’);
- Unpasteurised cheese – ask if the cheese is made with pasteurised or heat treated milk;
- Caffeinated drinks (coffee and energy drinks) – drink at most one energy drink a day, and limit the amount of coffee you drink;
- Raw meat – if you do wish to eat raw meat, refrigerate if for at least 2 days, ensuring it is cooled to at least 12 degrees to kill the parasite that causes toxoplasma (for more information on toxoplasma, see page 12);
- Liver – do not eat liver, or foods containing liver, including liver sausage or pâté, due to the high vitamin A content which can be harmful to the foetus;
- Alcohol;
- Certain herbal teas and herbal remedies – see www.voedingscentrum.nl/zwanger for more information (in Dutch).

Avoid foodborne infections

Good food hygiene is important, particularly during pregnancy. Always wash raw fruit and vegetables, and wash your hands and all kitchen utensils with soap and warm water after they have been in contact with raw meat, drying with a dry towel afterwards. Ensure that meat is well cooked through before serving.

Take note of the best before date on food items, and do not eat perishable food after the best before date has passed. For more tips (in Dutch) on food safety during pregnancy, visit www.voedingscentrum.nl/zwanger.

Dieting and fasting during pregnancy

Dieting during pregnancy is unhealthy for you and your baby. If you are considering fasting, for example during Ramadan, you should discuss this with your midwife or obstetrician.

Work

Working conditions may involve risks to the pregnancy. Some examples would include work in which you are exposed to: vibrations (trucks, agricultural and construction machinery), ionising radiation (radiation from radioactive substances), chemical substances or infection risks. Health problems can also be caused by physically demanding work, involving frequent lifting, pulling, pushing or carrying. Are your working conditions like this? If so, modify your work in consultation with your employer. Various schemes are available to workers who are either pregnant or who have just given birth.

If you have any questions about health and safety in the workplace, you can also consult your company medical officer or contact the Labour Inspectorate (www.arbeidsinspectie.nl). Your employer may offer you a (voluntary) preventive consultation with the company medical officer, who will assess the work-related risks and advise your employer accordingly. Of course, you can also consult your midwife or obstetrician.

If you usually work shifts, you can ask your employer to modify your hours of work. Pregnant women are also entitled to extra breaks. In principle, you cannot be required to work night shifts or overtime. These rules continue to apply for the first six months after you have given birth. If it is not possible to adjust your regular work so that it is entirely risk-free, your employer is required by law to offer you alternative employment. For further information (in Dutch) see: www.zwangerwijzer.nl and www.strakszwangerworden.nl (risico's op het werk).

Pregnancy classes

There are many classes available to help you stay fit and healthy while you are pregnant, and to prepare you for the delivery itself. Your healthcare professional can tell you which classes are available in your region and how to register.

Maternity leave

It is important that you are well rested when labour begins. You are entitled to 16 weeks' maternity leave, starting from the 34th week of pregnancy or later. Maternity leave continues for ten weeks after the birth of your baby. If you give birth earlier than the calculated due date, your maternity leave entitlement remains 16 weeks in total. If you give birth later than the due date, the leave is extended accordingly. Alongside the maternity leave arrangements there are also provisions for 'parental leave'. For further information (in Dutch) go to www.rijksoverheid.nl and search for 'bevallingsverlof'.

4 The blood test

During your first appointment, your health care professional will tell you about an optional blood test. It will only be conducted with your express consent. If you agree to give a blood sample, it will be sent to the laboratory to determine:

- Your blood group: A, B, AB or O.
- Your Rhesus D- and Rhesus c-blood group.
- Whether your blood contains antibodies to foreign blood groups.
- Whether you have been exposed to syphilis, hepatitis B or hiv.

If the blood test reveals any risk, it is often possible to provide treatment during pregnancy to protect your baby. For this reason, the test is offered at the earliest possible moment so that treatment can also be commenced promptly.

Often the laboratory will also be asked to check your blood glucose level and your haemoglobin (Hb) level. If the haemoglobin level is too low, you are suffering from anaemia, which usually responds well to treatment.

Antibodies to foreign blood groups

During pregnancy and childbirth, red blood cells from your baby can enter your own bloodstream. If your child has a different blood group to your own, your body may produce antibodies to this 'foreign' blood group. The laboratory can check whether this is the case. It is important to know, since some antibodies can enter the baby's blood through the umbilical cord and 'attack' the baby's own red blood cells leading to anaemia. The antibodies can also have this effect in subsequent pregnancies.

If such antibodies are found, further testing may be necessary. Your healthcare professional will explain what this involves.

Rhesus blood group

Women with either of two specific blood types have a greater likelihood of producing antibodies to other blood groups: those with Rhesus D-negative blood and Rhesus c-negative blood. These women need extra attention during pregnancy. As part of the blood test, the laboratory will therefore determine your Rhesus D- and Rhesus c-blood group.

Do you have Rhesus D-negative blood?

If you are D-negative, your blood will be re-tested for antibodies to foreign blood types in week 27 of your pregnancy. This time, the laboratory will also determine whether your baby is D-negative or positive.

If your baby is D-positive, there is a chance that your body will produce antibodies against his or her blood. To reduce this chance, you will be given an 'anti-D' injection in week 30. This presents absolutely no risk to you or your baby. After delivery, you will be given a further injection. Very occasionally, a third injection is required. Your healthcare professional will tell you if this is the case.

If both you and your child are D-negative, the injections are not necessary since your body will not produce any antibodies.

Do you have Rhesus c-negative blood?

If you are c-negative, it is possible that your body will start to produce antibodies to your child's blood. This will be investigated by means of a blood test in week 27. No injection is available to stop you producing these antibodies. Therefore, if such antibodies are found, your midwife or obstetrician will wish to increase their supervision of your pregnancy, with additional check-ups to ensure that your baby's health is not at risk.

You can find more information about antibodies at www.rivm.nl/bloedonderzoek-zwangeren.

Here, you can also find leaflets about Rhesus D and Rhesus c.

Infectious diseases

Syphilis

Syphilis is a sexually transmitted disease (STD). To ensure that the baby does not become infected, it is important that the disease be detected as early as possible in the pregnancy. Did the blood test show that you have syphilis? You will be referred to a specialist and given a course of antibiotics.

Hepatitis B

Hepatitis B is an infectious disease which affects the liver. Some people experience no symptoms and are therefore unaware that they are carriers of the hepatitis B virus. The blood test will determine whether you are a hepatitis B carrier. The virus is usually not harmful to your baby's health during pregnancy, but there is a risk of transmission during childbirth.

If the blood test reveals that you are carrying the hepatitis B-virus, your baby will be given an injection of antibodies soon after birth to protect him or her against the virus. It is also important that your baby builds up immunity to hepatitis B. This is why the baby is immunized. The first immunization takes place shortly after birth, and the next ones will be at the ages of 6 weeks, 3, 4, and 11 months at the child health clinic.

Hiv

Hiv is the virus, which can lead to aids. You can contract hiv through unsafe (unprotected) sex with an infected partner, or through contact with infected blood.

If the blood test reveals that you are hiv-positive (you have the virus) you will be referred to a specialized hiv centre. You can pass on the virus to your baby during pregnancy or childbirth, or in your milk during breastfeeding. You can significantly reduce the risk of transmission by taking antiretrovirals during pregnancy. For further information, go to www.soaaid.nl or www.hivnet.org.

Syphilis, hepatitis B or hiv: what now?

If you discover that you have syphilis, hepatitis B or hiv, there could be implications for both your health and your social life. It is essential that you take appropriate measures to prevent your partner or others becoming infected. Your GP or local GGD can advise you.

You can find more information about the testing for infectious diseases at www.rivm.nl/zwangerschapsscreening.

For more information about blood tests see www.rivm.nl/zwangerschapsscreening.

See page 30 for further information about the privacy of your personal data.



5 Testing for congenital conditions

If you are pregnant, you will be offered three screenings:

Screening for antibodies against blood groups and infectious diseases:
you will find further details about this in chapter 4.

Screening for Down's syndrome

The screening for Down's syndrome (trisomy 21) involves tests to determine the risk of your unborn child being affected by this disorder. The risk of two other disorders will also be examined: trisomy 13 (Patau's syndrome) and 18 (Edwards' syndrome). This screening is carried out at an early stage of the pregnancy. Your midwife or gynaecologist will ask you if you would like more information about this screening. If so, then there will be an in-depth consultation. You will also be given a brochure, so you can read through it all again later.

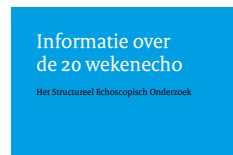
The 20-week ultrasound scan

The 20-week ultrasound scan is an ultrasound scan of your unborn child that can be carried out around the 20th week of pregnancy. This is to check whether your unborn child has spina bifida or anencephaly. It can also reveal other physical abnormalities that may be present. Your obstetrician or gynaecologist will ask you if you would like more information about the 20-week ultrasound scan. If so, then there will be an in-depth consultation. You will also be given a brochure, so you can read this information again later, at your leisure.

You can also find further details at the following websites:

www.rivm.nl/downscreening and
www.rivm.nl/zowekenecho.

Here, too, you can find the brochures that contain further details on both subjects.



6 Preparing for the birth and maternity care

A birth plan

A birth plan helps you to consider your needs and expectations regarding childbirth and to discuss these with your partner, midwife, gynaecologist and/or other care provider. You can indicate what is important to you. Together with your midwife or gynaecologist, you determine whether your wishes are feasible.

What if you are switched to another care provider during pregnancy or childbirth? Be sure to discuss your plan with him or her. Your birth plan is part of your medical record. This means that the midwife or gynaecologist who will be attending you during childbirth can check the details of your birth plan at any time.

Details of a comprehensive sample birth plan can be found at www.deverloeskundige.nl, under 'Childbirth'.

You can find further details about childbirth, pain relief, etc. at:

- www.deverloeskundige.nl, under 'Childbirth'
- www.nvog.nl → information → information leaflets → 'Pain relief during childbirth'
- www.thuisarts.nl → enter 'Childbirth' as the search term.

Location of childbirth

If you are under the care of a midwife and the pregnancy has proceeded normally, you can generally decide whether you would prefer to give birth at home or at the hospital (attended by your own midwife). If you have been under the care of an obstetrician, if there have been any complications or if complications are expected, you should give birth in hospital. For example, this may be necessary if you have high blood pressure or if the baby is in a breech presentation ('upside down'). About half of all women are referred to hospital during the birth of their first child. The chance that your midwife will refer you to a hospital during a subsequent childbirth is considerably smaller.

Arrange maternity care

You must arrange your maternity care in good time, and in any case by the 16th week of pregnancy. You can choose which organization you wish to provide this. Ask your health insurer what form of maternity care you are entitled to. The maternity nurse can provide support during the birth, either at home or in a birth centre, and sometimes in a hospital. Your midwife or obstetrician can give you more information. Maternity care in the Netherlands is organized on a different basis to most other countries. Ask your midwife or obstetrician to explain the Dutch system of *kraamzorg*.

Breastfeeding

Breastfeeding is now recommended as first choice for all babies. Prenatal classes are available to help you prepare, or you can seek advice from a lactation consultant. If you have any questions about breastfeeding after you have given birth, ask your maternity carer or the staff of the child healthcare centre ('Consultatiebureau'). The pharmacist can advise you about medications during breastfeeding.

If breastfeeding is not possible, then infant formula is a good alternative. For more details about breastfeeding, please visit www.borstvoeding.nl or consult your midwife or gynaecologist.

7 After childbirth

The first weeks with your baby

Pregnancy and childbirth are joyous events, but they can also take their toll, both physically and emotionally. Your body will need time to recover, which may well take several weeks or months. This is perfectly normal. Your daily routine will change considerably now there is a new member of the family. Allow yourself time to adapt.

Registering the birth

You or your partner must register the birth with the local authority ('municipality') within three working days. Remember to take a valid ID. A copy of the registration certificate will be forwarded to the child healthcare centre and the organization which arranges postnatal tests such as the 'heel prick'. You will need a copy of the certificate to claim child support.

Maternity care

You will receive maternity care for the first week after giving birth. The maternity nurse takes care of the mother and child, but can also offer advice to the partner. It is important that you indicate what you need, so that the maternity nurse can take this into account as much as possible."

Medicines and breastfeeding

Are you breastfeeding and do you need to take new medication? Then you should tell the pharmacist that you are breastfeeding. For pain it is safe to take paracetamol. But if you need to take paracetamol for several days, please consult your midwife or doctor.

Jaundice in newborn babies

Most babies have a slight yellowish tinge for a few days, regardless of their natural skin colour. This is due to the presence of bilirubin, a natural breakdown product of the baby's blood. The yellow tinge is usually entirely harmless and will usually disappear after a few days. In some cases, the bilirubin becomes too high and medical intervention is required. Your baby will therefore be carefully monitored for several days. If your baby's skin is too yellow, a blood test may be carried out to measure its bilirubin level. If the result shows that this level is too high, the baby will usually be treated with light therapy, in a hospital.

For more information (in Dutch) on jaundice in newborns, www.babyzietgeel.nl.

The ‘heel prick’

During the first week of life, a few drops of blood will be taken from your baby’s heel and sent to the laboratory. It is then tested for a few rare hereditary diseases. Although these conditions cannot be cured, they can be managed by means of medication or diet. It is therefore important for your baby to have the heel prick.

Provided you have registered the birth promptly, no further action is required: a health visitor from the child health care organisation (JGZ) or your midwife will visit you at home to take the blood sample. Towards the end of your pregnancy, your healthcare professional will give you a brochure about the heel prick and the postnatal hearing test. See also www.rivm.nl/hielprick.

Hearing test

Good hearing is important for your child’s development. A child who does not hear well will have extra difficulty in developing normal language and speech, which in turn may affect his or her learning ability. The earlier any hearing loss is discovered, the sooner appropriate action can be taken. Your baby’s hearing will therefore be tested shortly after birth, usually at home between four and seven days after birth. The test takes only a few minutes and does not cause any pain or discomfort. The hearing test is generally conducted during the same visit as the heel prick, although in some regions it is carried out when the baby is a few weeks old and takes place at the child healthcare centre (‘Consultatiebureau’). In this case, you will receive an invitation by post. See also: www.rivm.nl/gehoorscreening.

The child healthcare centre (‘Consultatiebureau’)

If you are at home in the first few days after birth, the midwife and maternity nurse will provide the necessary care. After that, your local child healthcare centre will assume responsibility for providing all necessary care for your baby. No action is required on your part: someone from the centre will contact you for an introductory visit.

Vaccinations

The government invites all children in the Netherlands to take part in the National Vaccination Programme. They can then be vaccinated (‘immunized’) against diphtheria, whooping cough (pertussis), tetanus, polio, Haemophilus influenzae type B (HiB) diseases, pneumococcal disease, mumps, measles, German measles (rubella), meningococcal C disease, and hepatitis B.

Most contagious diseases are difficult to treat and pose a serious threat to your child's health. You will be sent an information package within four to six weeks after your child is born. It contains the registration card for the vaccination programme, a vaccination certificate (which will be completed as each vaccination is given) and a brochure about the National Vaccination Programme.

These vaccinations are not mandatory but most children (over 95%) take part in the programme. There is no charge to you: all vaccinations are paid for by the government. For information and advice, please contact your child healthcare centre or GGD. Information (in several languages) is also available at www.rijksvaccinatieprogramma.nl.

Returning to work

You will probably feel quite vulnerable at first when you return to work. There are special regulations concerning return to work for women who have recently given birth or who are breast feeding. For more information, www.fnv.nl/zwangerschap.

8 Privacy

1. Information about your pregnancy and delivery

Use of information for your healthcare

Your midwife, obstetrician or general practitioner registers information about your pregnancy in a healthcare file. This is a legal duty of every healthcare professional. This registration is necessary in order to be able to provide good care for you and your child. In the file is information about your health status and that of your child, and information about the tests that have been carried out and treatments. Healthcare professionals who are involved with your treatment have access to your information when it is necessary for their work. Because the various healthcare professionals who are directly involved in your care may share the information on you and your child with each other, they know what each one is doing and what has been agreed. All these healthcare professionals have a legal obligation of confidentiality (professional secrecy or privilege).

Use of information for improving national quality of care and for research

The midwife, general practitioner, obstetrician or the paediatrician who has treated your child provides information to the Perinatal Registry (perinatal refers to the period around the pregnancy and birth). Information from the different healthcare professionals over the whole period is collected in this registry. This information can be used to improve the quality of healthcare, including via the perinatal audit (during a perinatal audit healthcare professionals analyse the healthcare actually provided in a critical and structured way).

This information is further used for scientific research, which can help expand medical knowledge about pregnancy and birth. Only anonymous information is used for scientific research. Information that could be traced back to you or your child is only used if you give your express permission for this.

The Netherlands Perinatal Registry is maintained by the organisation Perined, on behalf of midwives, GPs, obstetricians and paediatricians. For more information (in Dutch) on privacy protection of your personal data held by the Perinatal Registry or the Perinatal Audit, visit Perined's website www.perined.nl and click on "Privacy".

2. Screenings during the pregnancy

Information about the screenings

During the pregnancy it is also possible for you to participate in a few screenings and after the birth you will be offered screenings for your baby. A screening enables certain diseases and disorders to be discovered at a very early stage. It is good to know what you can expect from a screening. This is why you are given information by your midwife and in this brochure. More information about the screenings can be found on the RIVM websites which are given in this brochure. Information about the 12-week blood test can be found at the end of this chapter*. You may decide for yourself whether you or your child will participate in the screenings.

Information about the screening in a national information system

If you participate in a screening during the pregnancy, your name, address, date of birth and test results from the screening will be entered into a national information system. In order for your child to be invited for the heel prick and hearing tests, the civil register of the local municipality passes on its information on your newborn child. This information is also entered in the information system for screenings. The information systems are necessary to allow the screening to progress well and to monitor the quality of execution of the screening. Anonymous information and test results are also used for national statistics and for scientific research in order to improve the screening and the treatment provided. More information about your privacy in the screening programmes during pregnancy can be found in the brochures and on the RIVM websites for the different programmes. These are given in chapter 9.

The national information system and your privacy

The national information systems are well protected. Only those people who need to see your information to perform the screening have access to the data. The legislation on the protection of your privacy is applicable here. If you do not want your data or that of your child to remain in the information system after the screening, please read the section under the heading 'Juridische informatie' on www.rivm.nl/bevolkingsonderzoek on how you can have your data deleted. Here you can also read about which information systems there are and what data are stored in them.

*** Information about the 12-week blood test**

Early in the pregnancy you can have your blood screened for infectious diseases and for antibodies to certain blood groups. You can read more about this in chapter 4 of this brochure. The results of this test are entered into your own healthcare file by your midwife or obstetrician. Your data are also entered into the national information system (Praeventis) for the screening. In the section above you can read why this is necessary, what happens to your data, how your privacy is ensured and how you can have your data deleted. Your data may, in certain cases, also be registered in a national information system (TRIX) that is managed by the blood bank (Sanquin Foundation for Blood Supplies). If, in the future, you should need blood, the blood transfusion laboratory can view your data. The Dutch Data Protection Act applies to this registry. Your data will never

9 More information

Website of the midwives

www.deverloeskundige.nl

The professional organisation for midwives (KNOV) has a website where you'll find a lot of information about pregnancy and childbirth. Here you can find details of the guidance and supervision provided by the midwife before, during and after your pregnancy. You can also download leaflets about childbirth positions and pain relief, for example. To be sure that you are well prepared for the birth, there is an online birth plan that you can fill in. The website also makes it easy for you to find a midwife in your area.

Website of the obstetricians

www.nvog.nl

The website of the professional association for obstetricians provides many information brochures for pregnant women. You can find them by going to the NVOG home page and clicking on 'Voorlichting' and then on 'NVOG voorlichtingsbrochures'. There are leaflets on subjects such as blood loss, pelvic floor problems and high blood pressure during pregnancy.

Website of the general practitioners

www.thuisarts.nl

By searching on 'zwangenschap' or 'bevalling' in this website you can find information about these topics on this website, for example, about problems during the pregnancy, about your diet, anaemia, and the period after the birth.

Website of the Dutch National Institute of Public Health and the Environment (RIVM) about the screenings for pregnant women and newborns and the national vaccination programme

www.rivm.nl/bloedonderzoek-zwangeren: 12-week blood test for pregnant women

www.rivm.nl/downscreening: screening for Down syndrome

www.rivm.nl/zowekenecho: the 20-week ultrasound scan (echo)

www.rivm.nl/gehoorscreening: the newborns hearing screening

www.rivm.nl/hielprik: the heel prick screening for newborns

Brochures with general information about the routine tests and screenings can be found on the websites in English, French, German, Spanish, Portuguese, Turkish, Papiamento, Chinese and Arabic.

www.rivm.nl/rijksvaccinatieprogramma provides information about the national vaccination programme. Under the heading 'brochures' is one on hepatitis B and pregnancy.

Websites of the Erfocentrum

www.erfelijkheid.nl: much information about heredity, DNA testing and genetic disorders.

www.zwangerwijzer.nl: contains a questionnaire for men and women. After completing the questionnaire, you will receive an overview of your answers. If the questionnaire identifies any risks to you or your baby's health, information about the risks will be provided.

Website of the pharmacists

www.apotheek.nl

By searching on the term 'zwangerschap' in this website you can find much information about using medications during pregnancy and the breastfeeding period. By entering the name of a medication you can find information about its use during pregnancy and the breastfeeding period.

Website of the Netherlands Nutrition Centre

www.voedingscentrum.nl/zwanger

The website of the Netherlands Nutrition Centre provides extensive details about nutrition during pregnancy and about your child's nutrition.

Contact your midwife or obstetrician immediately if you have any of the following symptoms

Are you worried? Discuss your concerns with your midwife

Discuss your worries about your own health or that of your baby with your midwife. Being anxious or uneasy is always a reason to phone. If you do not understand the explanation or information you are given, please tell the midwife. Ask for more time to be planned for you when you make an appointment.

Vaginal bleeding

If you have vaginal bleeding you should contact your midwife and keep your underwear or sanitary pad to show her.

Headache, dizziness, vomiting, pain in upper abdomen or upper back

If you are more than 20 weeks pregnant and have one of more of the following symptoms: headache, dizziness, vomiting, feeling a tight band around your head or upper abdomen, pain in the upper abdomen or between your shoulder blades, or sudden fluid retention in your face, hands or feet, you should contact your midwife.

Your baby is moving less than normal

If you are 26 weeks or more pregnant and you feel your baby is moving less than you are used to, you should contact your midwife.

Less than 37 weeks pregnant and you have stomach pain or backache that comes and goes

If you are less than 37 weeks pregnant but have stomach pain or backache that comes and goes with a certain regularity, you should contact your midwife.

If you lose water (amniotic fluid)

If your waters break, you will suddenly notice you are losing fluid via your vagina. It can be a gush of fluid or you may lose just a trickle. The waters (amniotic fluid) are often clear and do not smell. Sometimes they may have a yellow, green or brownish colour. Contact your midwife and try and save some of the water to show her.

This patient safety card has been compiled in collaboration with the Federation of Patients and Consumer Organisations in the Netherlands (NPCF) and the Royal Dutch Organisation of Midwives (KNOV).

This patient safety card was made on www.mijnzorgveilig.nl, an initiative of the Federation of Patients and Consumer Organisations in the Netherlands (NPCF).

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Ordering

Healthcare professionals can order copies of this brochure from
www.rivm.nl/pns-folders.



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