Nutrition & Pregnancy

Congratulations on your pregnancy!

It is now especially important to pay attention to your diet.

What will happen in your body?

In the first three months of pregnancy, all organs and internal systems of your baby are formed. From the fourth through until the ninth month it is all about further growth. These processes increase your need for nutrients during the course of pregnancy.

Your pregnancy requires extra energy, but because you generally do less exercise, you also require less energy. Make sure that you get enough nutrients every day and that you ingest as little harmful substances as possible by eating as pure as possible and thus preventing infections. Do you prefer not to consume milk products and/or meat? No problem. There are plenty of healthy alternatives!

Weight

During pregnancy, your weight will increase between 10 and 17 kilos on average. Make sure you do not gain too much weight during pregnancy. A healthy weight increases the chance of a healthy pregnancy. It is also known that if you have a healthy weight during the pregnancy, your child is less at risk of having heart and vascular diseases and diabetes at a later age.

If you are overweight, your blood sugar regulation, circulation, muscles and joints are relatively under more stress. This can lead to an increased risk of pregnancy complications, such as high blood pressure, pre-eclampsia and gestational diabetes. Mind your weight! During the pregnancy, don't lose too much weight or gain more than a maximum of 20% of your original weight. Maintaining a normal and healthy lifestyle will make this happen naturally. Look for the right balance of a healthy diet and enough exercise. If you need extra support you can always consult a dietician or lifestyle coach.

What do you need when you're pregnant?

You need extra calcium for the development of your baby's bone-, nerve-, blood- and muscular systems. Calcium is found in dairy products such as milk and yogurt and calcium-enriched vegetable dairy products, but also in green vegetables (leafy greens and cabbage varieties), legumes, dried fruits, fish, sesame paste, soy products (e.g. tofu, tempeh), grains, nuts, seeds, eggs, fish and meat. Examples of calcium rich foods: broccoli, kale, turnip greens, pak choi, Chinese cabbage, dried figs, whole grain products, almonds, hazelnuts, sunflower seeds, hemp seed, flax seeds, sprouts, salmon and sardines.

Zinc is indispensable for the growth and development of your baby. You can find zinc in beans (peas, green beans, lima beans, chickpeas), nuts and seeds, carrots, whole grains such as buckwheat and millet, wheat germ, sunflower seeds and pumpkin.

During the 2nd and 3rd trimester you need more **iron** than usual. Iron is needed to produce blood and form the muscles and the immune system. You can get iron from your diet. Meat, fish, eggs, nuts, legumes and green leafy vegetables (spinach!) contain a lot of iron.

Folic acid is a B vitamin that is closely involved in the development of the central nervous system and healthy cell development. Leafy greens, legumes, oranges, whole grains and nuts are the best source of folic acid. Vegetarians often have a higher folic acid content. Even so, you don't get there with just a varied diet. Therefore, it is advised to also take folic acid in supplement form. Take 400 microgram of folic acid per day before and during the first 3 months of pregnancy (up to 10 weeks).

Take 10 micrograms of **vitamin D** daily during your pregnancy. You need this vitamin to develop a healthy immune system, regulate cell metabolism and form the bones. Vitamin D is produced by the skin when it comes in contact with sunlight. The sun is not bright enough in the Netherlands to maintain your vitamin D level sufficiently.

Fatty acids in fatty fish, nuts, seeds and vegetable oils play an important role in hormone regulation and mood swings. They are also important for the development of the brain and eyesight of an unborn child. Eat two portions (300 grams) of oily fish per week. Do you not like fish (because of your pregnancy)? Then you can replace the fish with fish oil capsules or vegetable oil capsules with DHA. Eat enough nuts, seeds, fish and vegetable oils: regularly use cold-pressed linseed or walnut oil, for example, through salads and fry in olive oil (possibly mixed with some butter).

Choose whole grains and fibre-rich products such as vegetables, fruit, legumes, brown rice and wholemeal products as much as possible.

Choose (half) full dairy products. These products have a more balanced composition than skimmed products, are often less industrially processed, deliver an optimal number of vitamins and saturate better.

Choose lean meats as much as possible and pay attention to additives such as dextrose (sugar) and harmful E-numbers in pre-packaged meats.

Do you suffer from cramps in your calves during pregnancy? Supplementing with magnesium can help.

Vegetarian

If you don't eat meat, you have to make sure you get enough vitamin B12 and iron. These two are necessary for the production of red blood cells, the proper functioning of the nervous system and the formation of the muscles and the immune system. Vitamin B12 only occurs in animal products such as meat, fish, dairy and eggs. That's why, as a vegetarian, you have to consume dairy (and eggs) daily or use a supplement vitamin B12.

You can increase the absorption of iron from plant products by eating iron-rich products (such as bread and cereal, brown rice and legumes) simultaneously with vitamin C-rich products (vegetables (juice), fruit (juice) or potatoes). Vegetarians do not necessarily have to take extra vitamins or minerals, provided that they eat enough and with enough variation.

What do you have to consume daily at the very minimum?

- wholemeal bread, possibly thinly spread with butter or margarine and toppings, preferably without sugar
- 2500 grams of vegetables and 2 pieces of fruit
- 100 grams of lean meat, fish or a substitute (e.g. tofu, tempeh, beans and preferably no deli meats)
- a portion of whole grains (quinoa, bulgur etc.), brown rice, potatoes in the skin or whole-wheat pasta
- vegetable oil (e.g. olive oil, sunflower oil)
- wholemeal products, (green) vegetables, nuts (unsalted), seeds, dried fruits and legumes
- 3 portions of dairy (milk, yogurt, cottage cheese, cheese)
- 2 litres of water

What should I keep in mind when choosing what to eat?

Sometimes what you eat and drink can be harmful to the baby or you can get ill yourself. For example, you could become infected with listeria, toxoplasma or salmonella. Therefore, pay attention to the following:

Cheese

• Do not eat soft cheese made from raw milk. Raw milk cheeses can contain listeria bacteria. If the package says 'au lait cru' or raw milk, do not eat it. Hard cheese made from raw milk, such as Dutch farmhouse cheese, is allowed. Just like all other pasteurized cheeses. If the raw milk cheese is heated (as with cheese fondue or on a pizza) there is no danger of infection.

Fish

• Don't eat vacuum-packed or smoked fish, due to the vacuum packaging, the listeria bacteria can multiply more easily into harmful quantities. It is preferable to eat fresh fish from the fishmonger.

Meat

- Do not eat raw or semi-cooked meat (such as roast beef, tartar, carpaccio, filet americain). The parasite Toxoplasma gondii could occur in these. Make sure the meat is well cooked.
- Same as with fish, do not eat vacuum-packed meats.
- Limit the use of liver products (such as liver pâté, berliner and other organ meats) to 1 spread on bread (15 grams) a day. These contain a lot of vitamin A.

Raw milk and eggs

- Milk must be pasteurized.
- Only eat eggs that are well cooked or fried. Soft-boiled eggs can contain salmonella (a pathogenic bacterium). This can make you ill.
- Be careful with dishes containing raw eggs, such as home-made bavarois, mousse or homemade mayonnaise. In the supermarket you will mainly find variants with pasteurized ingredients.

Additives

- Artificial sweeteners. About the safety of artificial sweeteners during the pregnancy, conflicting research is available. Therefore, for the purposes of safety don't take them.
- Use as little artificial additives as possible (E-numbers). Use fresh, natural products as much as possible. Eat as pure as possible. The fewer artificial additives, the more nutrients it contains.

Drink

- Don't drink more than 1 cup of coffee per day, because of the caffeine. Limit consumption of coke, energy drinks and tea (except herbal tea), because of the caffeine and theine.
- Don't drink alcohol. The latest studies show that even a small glass can be harmful.
- Do not drink too much fruit juices because of the fruit sugars.
- Drink plenty! At least 2 litres per day.

Furthermore...

- Wash fruit and vegetables thoroughly.
- Also spread your food and carbohydrates throughout the day. Do not eat a lot all at once but eat 3 meals and plan time for 3 snacks. Chewing well promotes the absorption of nutrients.
- Alternate the various types of food within each product group. This limits the intake of taxing substances.

- Do you have a cat? Make sure that the litter box is changed daily. If you do this yourself, use gloves because of possible infection with the parasite Toxoplasma gondii.
- Some medicines and supplements, such as medicinal herbs, are detrimental to the development of the baby. Of many kinds of medicines and supplements it is unknown if they are safe to use during pregnancy. There are supplements that are essential during pregnancy such as folic acid and vitamin D. If you are healthy, and consume the full-fledged diet as described above, you basically need no additional vitamins. In some cases, a supplement, tailored to your needs, can come in handy. For example, iron supplementation in case of anaemia, probiotics in case of a risk of allergies or fish oil capsules in case of insufficient consumption of oily fish. Ask an expert for advice (your midwife, dietician, doctor, therapist). In the case of a vegetarian or vegan diet, it is advisable to contact a dietitian. Only use supplements that are safe during pregnancy.
- Move regularly and ensure sufficient rest (sleep) and relaxation. During pregnancy it is extra beneficial to keep moving. Movement keeps the muscles, joints and blood vessels in good condition and helps to maintain the right weight, prevents varicose veins and constipation, is good for your mood and helps against emotional fluctuations. Do physical exercise daily, but do not force it. Officially, it is advised to exercise at least 3 times a week. The intensity will decrease as the pregnancy progresses.
- Morning sickness is common in the beginning of the pregnancy. In the morning before you get up, eating something light, such as a rice cake or a few walnuts, can reduce morning sickness.

Prevent gestational diabetes

Some women get gestational diabetes, a temporary form of diabetes. This means that there is a disorder in-carbohydrate metabolism with the result that the body's blood sugar remains too high. It occurs in 2-10% of all pregnancies and is determined by a glucose tolerance test (GTT). Because of the change in hormones, the body does not respond well to insulin and blood sugar levels remains too high. The symptoms are usually vague, such as intense thirst and a lot of urination (in combination). In the case of gestational diabetes, your baby unfortunately has an increased chance of developing diabetes later in life. Healthy diet and exercise are usually sufficient to ensure that gestational diabetes does not develop any further. Spreading smaller meals throughout the day is important. In any case, avoid the refined sugars! Keep eating carbohydrates, which contain important nutrients.

Do you want more insight into your diet as a result of this information leaflet? Do you have specific wishes as a result of your diet, such as supplementation or for vegan/vegetarian food? Do you suffer from nausea, excessive weight gain, binge eating, gestational diabetes or hypertension? Then contact BBB Diëtetiek, partner of the Geboortecentrum and specialized in the field of nutrition during pregnancy.

Note: the first three hours of dietary advice are reimbursed by all health insurers from your basic insurance plan. During your pregnancy you are most likely paying all of your 'own risk/excess', so those three hours are covered. You may even be entitled to additional hours of dietary advice if you have a supplementary insurance plan.

Have a nice pregnancy!

Contact details

This publication has been realized in collaboration with

Obstetric Midwifery Practice Geboortecentrum Amsterdam De Genestetstraat 2 1054 AX Amsterdam www.geboortecentrum.nl assistentes@geboortecentrum.nl

Phone numbers: 020-6831640

020-2601706 (Emergency Red) 020-2601287 (Emergency Yellow)

BBB Diëtetiek Amsterdam

Hazenstraat 51 1016 SN Amsterdam coline@bbbdietetiek.nl

Phone numbers: 06-144 633 16