

Gestational Diabetes

Nutritional advice and control of your blood sugar

You are diagnosed having gestational diabetes due to an abnormal oral glucose tolerance test (OGTT). Management of gestational diabetes starts with a diet. This brochure gives you information about nutrition during pregnancy. There are also some general nutritional advices, though specified for pregnancy.



A healthy diet during pregnancy is important

Carbohydrates

All carbohydrates are turned into glucose by our body. Glucose is fuel for our cells. Insulin makes sure that glucose can enter cells. When you consume too many carbohydrates at once, the body suddenly needs more insulin to let all the glucose pass the cell membranes. Normally, this is not a problem, but with a disturbed glucose metabolism, it is. The glucose will then stay in your bloodstream, which will lead to a high(er) blood glucose. Because glucose passes the placenta, the unborn baby will receive extra sugar. Due to an increased availability of glucose in the maternal bloodstream, children tend to grow faster than is desirable.

Make sure you have a regular intake consisting of 3 main courses and 2 to 4 snacks. This way the intake of carbohydrates is divided throughout the day. “Carbohydrates” is a collective term for:

- Starch: bread, porridge, cereals, potatoes, pasta, rice and vegetables
- Milk sugar: milk products such as buttermilk, yogurt, cottage cheese and custard
- Fruit sugar: fruit and fruit juices
- Sugar: granulated sugar, biscuits, sweets, chocolate, pastry

Limit the use of sugar and sugar rich products

- Do not add sugar to coffee and tea;
- Stay off soda, lemonades and sweetened milk drinks;
- Choose unsweetened milk drinks, water and light soda (to a limited extent);
- Eat two pieces of fruit spread over the day;
- Eat less products that contain a lot of sugar such as biscuits, sweets, pastry, etcetera;
- Choose as a snack one portion of fruit, a little bowl of yogurt, whole wheat cracker with cheese or meat toppings, 25 grams of nuts, or avocado;
- Use sandwich toppings as cheese or meats;
- Full-fat dairy products can fit into the diet of pregnant women.

Eat enough dietary fibers

Dietary fibers play an important role in our diet. Fibers are indigestible parts of vegetable foods. They are needed for an optimal functioning of the gut. Fibers from fruit, vegetables and legumes have a favorable effect on glucose and cholesterol levels in your blood.

Nutrition during pregnancy

A healthy diet during pregnancy is important. The baby is depending on the nutrition you take, though more than usual is not needed. During pregnancy you need more energy, but you also are less active which means you use less energy. When you eat the amounts mentioned below, you will receive enough nutrients for you and your child.

Required amounts a day

Bread	4-6 slices
Potatoes, rice, pasta or legumes	4 pieces or 4 serving spoons (200 gram)
Vegetables	4 serving spoons (200 gram)
Fruit	2 pieces (200 gram)
Dairy products	450 ml milk products and 1.5 slice of cheese
Meat, fish, egg and meat substitutes	100-125 grams (preferably 2 times a week fish)
Margarine/halvarine	30 grams (5 grams per slice)
Cooking and frying products, oil	15 grams (1 tablespoon)
Drinks (including milk)	1.5 liters

Source: Voedingscentrum- eerlijk over eten

During the pregnancy you have to be careful with the following foods and drinks:

- Wash all vegetables well;
- Do not eat liver;
- Do not more than one slice of bread per day with toppings that are made of liver (such as liverwurst and pâté);
- Do not eat raw meat such as filet americain, tartar, roast beef, etc.;
- Cold cuts such as raw ham, smoked meat, bacon and sausage meats are processed and therefore can be eaten;
- Do not eat cheese made from raw milk and do not drink raw milk either;
- Do not eat raw or prepackaged smoked fish;
- Do not eat more than 2 portions of fatty/oily fish per week;
- Do not eat predatory fish, such as tuna, swordfish or shark;
- Limit the intake of caffeine containing drinks to 1 per day (coffee/coke);
- Do not use alcohol;
- Do not eat raw sprouts such as bean sprouts or alfalfa;
- Maximum of 2-3 licorice per day;
- Do not take too many products with cinnamon, such as gingerbread;

Vitamines

There are also some recommendations that are specific for pregnant women. The use of folic acid and vitamin D are advisable. Folic acid (400 µg= 0.4 mg daily) is needed from at least four weeks before the fertilization up to, and including the first eight weeks of the pregnancy. Extra vitamin D is needed during the entire pregnancy. Do not use a combined vitamin A-D preparation. This is to prevent an overdose of vitamin A. You can also choose to take multi-vitamin specific for pregnant women, such as Gravitamon/Davitamon mamma. This contains the extra recommended folic acid and vitamin D and all other micro-nutrients you need in your pregnancy.

Glucose measurements

To monitor the glucose (sugar) level in your blood during pregnancy, you should regularly take a daily glucose curve as explained to you by the nurse. Measurements are taken for four times a day:

- fasting
- 1 hour after each meal, i.e. breakfast, lunch, and supper.

After the first week of your diet, you will measure your glucose levels and inform the nurse of the Transmuraal Vrouwen Dagcentrum of the results. The nurse will (after possible conference with the doctor) advise on further policy. Thereafter, you will measure a glucose curve once a week. The glucose levels need to be maintained within normal range. For normal ranges see the patient information on glucose measurements. If the glucose levels are not within the normal range, you need to contact the nurse of the Transmuraal Vrouwen Dagcentrum. It is also desirable to communicate once a month your blood glucose levels.

Example of a healthy diet

Breakfast	2 Slices brown or wholegrain bread smeared with diet halverine or margarine. Topping: preferably cheese, cold cuts, peanut butter, sandwich spread, cheese spread, cream cheese. 1 Glass with milk or unsweetened milk product. Or: 1 little bowl with yogurt or cottage cheese, with 3-4 tablespoon unsweetened muesli. Sugar-free drink of your choice.
In the morning	1 Portion of fruit. Sugar-free drink of your choice.
Lunch	2-3 Slices brown or wholegrain bread smeared with diet halverine or margarine. Topping: cheese, cold cuts. Bowl with raw vegetables/cucumber/tomatoes. Sugar-free drink of your choice.
During the afternoon	1 Portion of fruit. Sugar-free drink of your choice.
Dinner	1 Little piece of meat, fish or meat substitute prepared in liquid baking or frying butter. 4 Little potatoes or replacement. A big portion of vegetables. Use during this meal only 1 tablespoon in liquid baking, frying butter, oil, or mayonnaise. 1 Little bowl with yogurt, unsweetened.
During the evening	1 Little bowl with yogurt or cottage cheese. Or: 25 grams of unsalted nuts. Or: 1 whole wheat cracker with cheese or meat toppings. Sugar-free drink of your choice.

If you are already being treated by a dietician, your diet may deviate from this example menu. Then do not use this example menu, but follow the advice of your dietician.

Contact

When you have questions regarding this information you can contact:

Transmuraal Vrouwen Dagcentrum

Opening hours: Monday to Friday from 08:00 am to 03:30 pm

Phone number: 043 - 387 41 45

Email: dagcentrum.verloskunde@mumc.nl

Nurse practitioner Diabetes contacted via the Brugpoli

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Websites

- www.mumc.nl
- www.gynaecologie.mumc.nl/transmuraalvrouwendagcentrum
- www.gezondidee.mumc.nl