Gastric Surgery for Obesity Gastric Bypass and Sleeve Gastrectomy

azdelta

Uw ziekenhuis.

Content

Dear patient,

Obesity is a serious health risk in the Western world. Being extremely overweight is associated with life-threatening consequences. Drug therapy is often ineffective in the long term. Surgical procedures for morbidly obese people have been developed over the past 40 years.

International recommendations on how to treat obesity emphasise the importance of **a multidisciplinary approach** with attention paid to the physical, psychosocial, nutritional and physical aspects. Hospital care also involves various disciplines (doctors, dieticians, psychologists, physiotherapists, etc.)

If you have any questions after reading this brochure, please do not hesitate to ask the doctor in charge of your care. Our team is always available for further questions or comments.

The AZ Delta obesity team

1 Definition of obesity

For humans, the most commonly used measure of obesity is the Body Mass Index (BMI): BMI is an evaluation of weight in relation to height and is calculated as follows: body weight in kilograms divided by body height in metres squared.

For example, someone who weighs 85 kilograms and is 1.70 m will have a BMI of 29.
85/(1.70 x 1.70) = 29

BMI between 17.5 and 18.5 = underweight
BMI between 18.5 and 25 = healthy weight
BMI between 25 and 30 = overweight
BMI between 30 and 40 = obesity
BMI over 40 = very severe obesity

Effects of obesity

- Reduced mobility and orthopaedic problems (back and knee strain)
- Skin disorders
- Cardiovascular diseases
- Sleep apnoea
- Type 2 diabetes
- Gastrointestinal diseases
- Reduced fertility
- Disturbed body image and negative self-image
- Mood disorders
- Eating disorders
- Etc.

This brochure is about the laparoscopic gastric bypass and gastric sleeve surgery. Our goal is to help you make a well-informed decision about whether or not to have the operation. In this brochure you will find information about the procedure, progression, cost, preparation, possible complications and follow-up.

2 Types of operations

There are various surgical options in the treatment of obesity to help you lose weight. The procedures can be classified according to the method used. Some operations greatly limit the amount of food you can eat per meal (restriction). Other operations reduce the amount of food absorbed by the body (malabsorption). There are also procedures that involve a combination of both techniques.

Globally, there is the most scientific evidence about the gastric bypass and sleeve gastrectomy procedures. We therefore prefer these procedures.

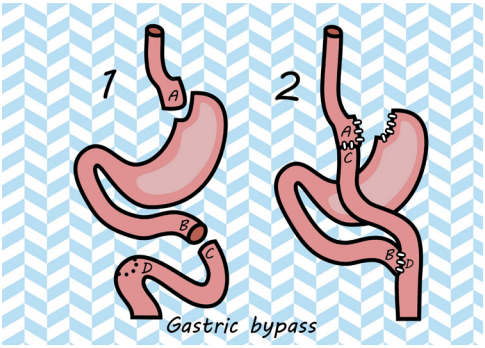
a. Gastric bypass

What is it?
A gastric bypass or a Roux-en-Y Gastric Bypass (RYGB) is a procedure in which the stomach, duodenum and part of the small intestine are closed off. It mainly works by greatly limiting the amount of food you can eat per meal (restriction) while leaving you with a long-lasting feeling of fullness rather than feeling hungry. The absorption of fats and sugars is also slightly limited (malabsorption). Eating high-calorie items, mainly sugars, will make you feel uncomfortable, which will help you maintain more balanced eating habits after surgery.

Using staples, a new small gastric reservoir is created in the upper part of the stomach (see picture (A)). This new reservoir no longer has a passage into the rest of the stomach. The small intestine is picked up (C) and connected to the new stomach (A + C). Through a narrow passage, the food from the new stomach goes directly into the small intestine. The old stomach and duodenum are thus bridged or 'bypassed'. The old stomach or residual stomach is not removed. This procedure is therefore **reversible**.

The end of the duodenum (B) is finally reconnected to the small intestine, at least 60 cm further (D) than the connection to the new stomach. This new connection of the duodenum to the small intestine (B + D) allows the gastric juice, bile and pancreatic juice to be mixed with food. This is necessary for normal digestion.

This operation is very suitable for patients who have previously **had a sweet tooth** and have a **slow metabolism**.



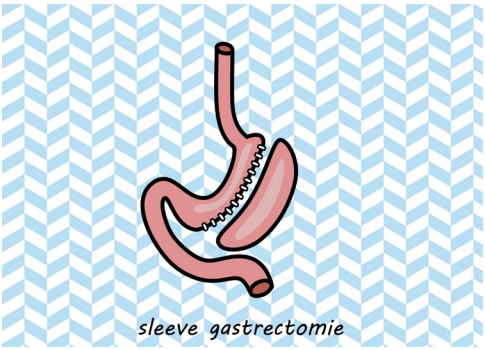
Keyhole surgery
In principle, gastric bypass surgery is executed laparoscopically, i.e. through keyhole surgery. It is performed under general anaesthesia. The procedure takes about 45 to 60 minutes. The operation generally takes place on the first day of admission and one overnight stay is scheduled.

Results
On average, a loss of 70 to 75 percent of the excess weight is recorded about a year to a year and a half after the procedure. This weight loss is also generally maintained in the long term.

In addition to this weight loss, some conditions associated with being overweight may improve or disappear. Diabetes, high blood pressure, high cholesterol and sleep apnoea respond especially well to a gastric bypass.

b. Sleeve gastrectomy

What is it?
A gastric sleeve or Sleeve Gastrectomy (SG) is a procedure in which approximately two thirds of the stomach (= the greater curve of the stomach) is removed. The remaining part of the stomach takes the form of a tube.



Since the greater curve of the stomach is effectively removed instead of just being made inaccessible, the concentration of some active substances produced by the stomach is also reduced (including ghrelin). This causes hunger to disappear, while much less food is consumed.

A second advantage of this procedure is that in case of insufficient results or sometimes as a second step for patients with a severe form of obesity, the sleeve can easily be converted to a gastric bypass or other procedure (e.g. SADI-S). Compared to the gastric bypass, the volume of the stomach after a sleeve gastrectomy is greater, making the weight loss slower.

This operation is particularly suitable **for patients who eat large quantities**. Patients who mainly consume sugary goods (confectionery and soft drinks) will benefit less from this operation. This is because after the operation people can still snack and consume soft drinks, causing the weight loss to be minimal.

Since part of the stomach is removed, this procedure is **not reversible.**

Keyhole surgery
In principle, the sleeve gastrectomy operation is performed laparoscopically, i.e. through keyhole surgery. It is performed under general anaesthesia. The procedure takes about 30 to 45 minutes.

Results
On average, a loss of 40-50 percent of the excess weight is recorded about a year to a year and a half after the procedure. This weight loss is also generally maintained in the long term.

3 Cost

A gastric bypass costs about 5,990 euros. With reimbursement from the sickness insurance fund, the part payable by the patient is 1,100 to 1,400 euros.
A gastric sleeve costs on average 4,990 euros. With reimbursement from the sickness insurance fund, the part payable by the patient is 700 to 1,000 euros.
Please note that these prices are guide prices.
Do you have hospitalisation insurance? If so, this usually covers in the part borne by the patient, but this depends on the policy taken out. You should discuss this with your insurer.

If you have any questions about the financial side, please contact the invoicing department on +32 (0)51 237 666 or by emailing factuur@azdelta.be.

To be eligible for reimbursement, you must meet the legal **conditions**.

- Be at least 18 years old.
- Have a Body Mass Index (BMI) of 40 or more.
  OR have a BMI of 35 or more and suffer from diabetes mellitus, obstructive sleep apnoea syndrome, or high blood pressure (not adequately managed with three different medications).
  OR have gained weight/experienced inadequate results after a previous bariatric procedure.
- Have followed a documented diet for at least one year, with no lasting results (with a dietitian, Weight Watchers, Infraligne, etc.).
- Have had a multidisciplinary recommendation after discussion with a surgeon, an endocrinologist or internist, a clinical psychologist and a dietician.

In addition, a number of **medical criteria must also be met.**

- Have no alcohol and/or drug addiction.
- Have sufficient motivation to adapt your diet and lifestyle after the operation and be prepared for life-long follow-up.
- Not be pregnant and preferably not wishing to have children within a year of the procedure.
- No serious, uncontrollable psychiatric disorder or an eating disorder. In the case of serious mental illness, the psychiatrist and/or psychologist in charge of your care will be contacted.

4 Examinations before procedure

A multidisciplinary screening must be performed before the operation. These examinations are patient-specific and may include some of the following:

- a gastroscopy (looking in the stomach to rule out stomach ulcers and oesophageal infections, for example).
- a blood test.
- check by an endocrinologist or hormone specialist (to check if your weight is not due to hormones).
- information and evaluation by a dietitian.
- discussion with a psychologist.

5 Discussion with the psychologist

Obesity has a negative impact on many areas of life, such as mood, social interactions, self-image, etc. The aim of the procedure is to help people achieve a **good quality of life.** However, rapid drastic weight loss is also a psychologically significant event. The procedure can be a powerful tool for this, but is not a complete solution.

The purpose of the discussion with the psychologist is to provide the necessary information for a well-informed decision to be made:

- gage your motivation for having the operation
- explore your general mental state
- explore eating-related behaviour (binge eating, emotional eating behaviour, alcohol, etc.).
- psychoeducation and advice
- consider your coping abilities and resilience.

It is important that you have a realistic picture of your own strengths and weaknesses to be able to better deal with the pitfalls that you will undoubtedly come across after the procedure, such as emotional eating. Longer-term psychological monitoring is also recommended for some patients.

6 Pre-operative diet

We ask our patients to follow a diet before surgery. These nutritional adjustments reduce the risk of complications, since the liver volume will shrink. For further information and/or questions, please contact the dieticians. You will also find more information in the brochure you receive from the dieticians.

Protein diet

For 10 days before surgery, you must adhere to a protein diet using shakes or strictly limiting yourself to the following foods:

- light, white, unsweetened yoghurt (add artificial sweetener if needed) or white lean quark
- light fruit yoghurt sweetened with sweetener
- skimmed milk and unsweetened buttermilk (or possibly light soy milk)
- homemade vegetable soup made from vegetables, water and low-fat stock:
  - NO binding agents (=potatoes, flour, pasta)
  - do NOT add powder or soup from a tin or carton
  - do NOT add cream
- raw or cooked vegetables:
  - WITHOUT mayonnaise or vinaigrette.
  - NO beans, peas, beetroot, sweetcorn.
- coffee, tea, water, sparkling water

Stop smoking

As well as the nutritional recommendations above, it is also recommended that you stop smoking, if possible, six weeks before surgery. This is a general guideline recommended when undergoing surgery. Smoking has a negative impact on blood flow and therefore also on wound healing.

7 Possible complications

During the procedure or the period shortly after the procedure

Short-term complications occur within 30 days after the surgery and are directly or indirectly related to the recent surgery. The most common significant early complications are infection, bleeding, leakage/perforation, obstruction/stenosis, venous thromboembolism and myocardial infarction.
The general condition of the patient plays a role in the risk of such complications, for example the number and severity of other conditions.
Currently, approximately 2.5 to 5 percent of patients require re-admission within 30 days.

Source: KCE report 2019

At a later stage after the procedure

- iron, folic acid, vitamin and mineral deficiency (RYGB)
- (temporary) hair loss
- delayed wound healing
- incisional hernia
- obstruction or internal herniation (RYGB)
- gallstones resulting from the weight loss
- narrowing at the gastric outlet
- reflux (SG)
- stomach ulcer
- weight gain after the procedure due to expansion of the new stomach, expansion of the gastric outlet
- etc.

8 Post-operative nutrition

It is important to remember that the operation alone is not enough to tackle your overweight. You should adopt a healthy lifestyle with **adequate exercise** and follow the prescribed **eating rules**. Motivation to adapt your lifestyle is therefore very important for permanent weight loss.

Before the operation, the dietitian will go through the eating rules with you in detail. For example, it is very important that you chew your food well, eat slowly and stop eating as soon as you first start to feel satisfied. Don't drink during meals. We recommend that you don't drink anything half an hour before, during or half an hour after the meal. We strive for a healthy balanced diet with limited fats and fast sugars. After the operation, we provide patients with the "**Nutritional advice for bariatric surgery**" brochure.

Regarding some patients, we see weight gain again in the long term. The most common cause is altered eating behaviour. Routinely increasing portion sizes can lead to the small stomach becoming enlarged, since our stomach is a muscle. It is important to stick to the smaller portions!

You have the possibility of follow-up with a dietitian after the operation, which we strongly recommend. You will find the contact details on the back of the brochure.

9 Follow-up and guidelines

In order to obtain good results and keep the complication risk as low as possible, good follow-up by the surgeon and dietitian is necessary. After the operation, we provide patients with a brochure with specific guidelines: "**Follow-up after a bariatric procedure**". It is also possible, at your request, to start counselling with the psychologist after the operation. We can also advise you on an exercise programme.

In order to achieve and maintain an optimal effect after the procedure, emphasis is placed on a number of **guidelines**. These rules also help to prevent symptoms and side effects of surgery, with the aim of a better quality of life.

1. Regular exercise

In addition to adjusting dietary habits, regular exercise is an important factor in the success of the treatment and the sustainability of the weight loss. This is the case both before and after the operation.

Exercising *before surgery* reduces the risk of complications and improves the condition of the heart and blood vessels, making your recovery quicker.

For the first few weeks after the procedure, you may still feel tired. You will gradually resume daily activities. Lifting something (more than 5 kg) is best avoided during the first two weeks after the procedure.

Afterwards, it is very important to maintain healthy exercise to optimise the result of the procedure and avoid muscle breakdown during the slimming phase. This can be done on your own initiative, via a physiotherapist (e.g. exercise on referral) or via our balance programme for rehabilitation (see the brochure '**Balance, multidisciplinary obesity programme**').

2. Limiting alcohol

Recent studies have shown that bariatric surgery affects alcohol processing. After the gastric bypass procedure, alcohol is absorbed more quickly and efficiently into the bloodstream. We recommend avoiding alcohol.

3. Reducing or stopping smoking

4. Coping with stress and emotions

Some people not only eat because of a craving for something sweet or a feeling of hunger, but because of their emotions. Food becomes a comforting, rewarding or relaxing task. If this sounds like you, you will need to find alternatives. This often has the pitfall of shifting the problem to alcohol or tobacco. This is examined more closely with the psychologist and we look for the best solutions tailored to your situation.

5. Avoid vitamin deficiencies

It is important to perform blood tests at regular intervals to detect vitamin and mineral deficiencies. The intake of preventive vitamin and calcium supplements is therefore recommended.

10 More information?

Read more at **www.ObesitascentrumWestvlaanderen.be** or **www.azdelta.be**

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