Gastric Surgery for Obesity Gastric Bypass and Sleeve Gastrectomy

azdelta

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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.

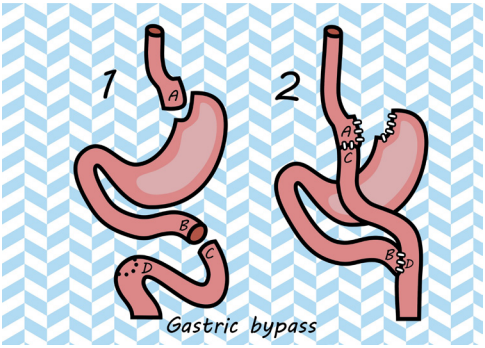
Gastric bypass

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.

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 carried out laparoscopically, i.e. using keyhole surgery. This is done 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

The amount a **bypass** procedure costs is estimated at EUR 5,990. If you are eligible for compensation from the health insurance fund, the part payable by the patient is EUR 1,100 to EUR 1,400.
A gastric **sleeve** operation costs approximately EUR 4,990. If you are entitled to compensation from the health insurance fund, the part payable by the patient is EUR 700 to EUR 1,000.

You can request the **details** of the cost price from the invoicing department on 051 23 76 66 or by sending an email to factuur@azdelta.be.

Do you have hospitalisation **insurance**? If so, this usually covers the part borne by the patient, but this depends on the policy taken out. You should discuss this with your insurer.

To be eligible for **compensation** from the health insurance fund, you must meet the conditions and medical criteria laid down by law.

The **conditions** for compensation:

- 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
  OR have a BMI of 35 or more and suffer from obstructive sleep apnoea syndrome
  OR have a BMI of 35 or more and suffer from 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.

The **medical criteria** for compensation:

- 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.
The screening may include some of these examinations:

- a fasting blood sample
- a bowel examination or a gastroscopy (looking in the stomach to rule out stomach ulcers and oesophageal infections, for example).
- 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 Discussion with the dietician

During this discussion, your dietary habits will be identified, and the **diet you must follow before the procedure will be** explained in detail. This strict 600 kcal diet must be followed for ten days prior to surgery. It is necessary to shrink the liver so that the operating area becomes more visible. You will receive more information in the brochure from the dieticians.

In addition to the diet you must follow, it is also recommended that you **stop smoking** six weeks before the operation, if possible. This is a general guideline that is recommended before undergoing surgery. Smoking has a negative effect on blood flow and therefore also on wound healing.

It is important to understand that the operation alone is not enough to tackle your overweight. It is necessary to adopt a healthy lifestyle through adequate exercise and by adhering to the prescribed **dietary rules**. The dietician will discuss these eating rules with you: chewing well, eating slowly and stopping eating at the first feeling of satiety. We recommend not to drink anything half an hour before, during and half an hour after a meal.
We strive for a healthy balanced diet with a restriction of fats and fast sugars. All advice can be found in the information brochure: “Dietary advice for bariatric surgery”. The dietitian will give you a copy.

In a number of patients, weight gain is noticeable again in the longer term. The most common cause is changes in your eating habits. The gradual increase in portion sizes can lead to the enlargement of the small stomach, since our stomach is a muscle. It is important to stick to **smaller portions**!

Follow-up appointments with the dietician are necessary

for proper monitoring of your weight, protein requirements and vitamin supplements. This is done at three weeks, three months, six months and one year after the procedure.

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.

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
- ...

Source: KCE report 2019

8 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, patients receive 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 recommendations help to prevent complaints and side effects from the operation, 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. This can continue for quite some time. You may gradually resume daily activities. Lifting something (more than 5 kg) is best avoided during the first two weeks after the procedure, but housework is allowed. After two weeks, you can go swimming, if the wounds have healed nicely. Cycling and walking may be gradually increased. We aim for ten thousand steps every day.

Afterwards, it is very important to maintain healthy exercise to optimise the result of the procedure and avoid muscle breakdown during the slimming phase.
Cardio training can be started from three weeks after the

operation and strength training from four weeks. You can do this with a private physiotherapist or via the Fit'R exercise programme (see the brochure: "Rehabilitation after bariatric surgery"). The brochure is provided by the physiotherapist after the procedure.

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.

More information can be found at www.azdelta.be or www.ObesitasCentrumWestVlaanderen.be

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