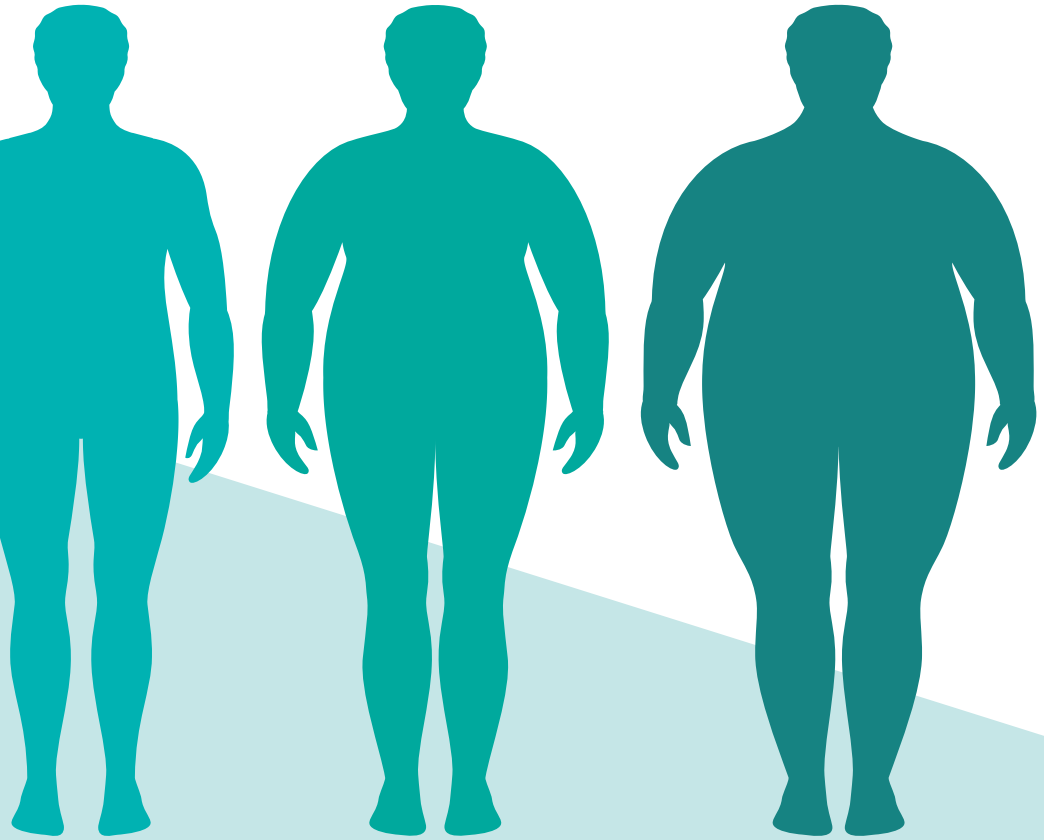


Surgical treatment of severe excess weight



FUNDASHON **M**ARIADAL



Introduction

This brochure provides additional information for seriously overweight patients (morbidly obese) receiving treatment at Fundashon Mariadal.

In this brochure you can read more about:

- what is serious excess weight (morbid obesity)?;
- the causes and risks of being seriously overweight;
- the treatment programme for serious excess weight at Fundashon Mariadal;
- the phase before the operation, the actual operation and the phase after the operation;
- the results of the treatment.

Because Fundashon Mariadal takes the treatment of serious excess weight seriously, the research, treatment and follow-up process is thorough. This increases the chance of success. Moreover, in all phases of the treatment, you will receive the required medical and emotional support.

What is serious excess weight?

If Body Mass Index (BMI) is higher than or equal to 40, this is serious excess weight or when additional medical problems arise with a BMI higher than 35 due to being overweight. Approximately 60% of Bonaireans are overweight. About 20% of them are morbidly obese.

BMI is determined by dividing your weight in kilogrammes by your height in metres squared.

$$\text{BMI} = \frac{\text{weight}}{\text{height}^2}$$

Example

A person weighs 85 kilos and is 1.75 metres tall.
Their BMI is then 85: $(1.75 \times 1.75) = 27.8$

Body Mass Index (BMI)	18,5 to 25	good weight
Body Mass Index (BMI)	25 to 30	overweight
Body Mass Index (BMI)	30 to 40	obese
Body Mass Index (BMI)	40 to hoger	morbidly obese

Causes of obesity

The number of people who are overweight is increasing worldwide as well as on the BES islands. The main causes of obesity are bad eating and drinking habits and insufficient physical activity. A hereditary predisposition also plays a role. A certain condition such as an overactive adrenal function can cause excess weight but only in a few cases.

Serious excess weight risks

The main risks of being seriously overweight (morbidly obese) are:

- heart and vascular disease;
- diabetes mellitus;
- gallstones;
- wear and tear of joints (osteoarthritis)
- trouble breathing;
- an increased risk of malignant diseases;
- abnormalities of the fat levels in the blood (lipid disorders);
- sleep apnea syndrome.

People with severe excess weight are more likely to develop these complications and die prematurely. In addition, serious excess weight often also causes psychosocial problems in the private and work environment.

Treatment protocol for morbid obesity

There are many ways to lose weight, such as medication, diets and slimming clubs. Often weight loss is insufficient and not permanent. Over time, most people return to their old weight. The only effective treatment with a permanent effect for seriously overweight people is a surgical stomach procedure, such as sleeve resection or gastric bypass (see page 15/16).



Fundashon Mariadal's treatment team consists of a surgeon, dietician, psychologist, coach and psychiatric nurse. The team works together with the Horacio Obuder Hospital (HOH) on Aruba. This team has developed a programme that must be completed before and after surgery.

The programme before the operation lasts about 16 weeks, the length of which depends on any supervision needed. In principle, you will be monitored for five years after the operation. To be eligible for treatment, you must meet the following conditions:

- you are aged 18 to 65;
- your BMI is higher than or equal to 40, or your BMI is higher than or equal to 35 and you have medical complaints due to your weight;
- there must be no current addiction problems (alcohol and/or drugs)
- you have been overweight for more than five years;
- you have made several serious attempts to lose weight;
- you are prepared to undergo an extensive examination by the psychiatric nurse and the internal specialist if necessary;
- you are prepared to change your eating habits under the supervision of a dietician;
- after the operation, you will need to have check-ups at the hospital for at least another five years.

Exceptions

Different rules apply if you weigh more than 200 kilos or have a BMI higher than 60. This is to limit the risks during the operation. This often involves a more intensive and longer preliminary process to lose more weight in the pre-operation phase.

The phase before surgery

First contact

The GP will refer you to the surgeon's consultation hour. The surgeon then does the first intake. If you are eligible for surgery, he or she will refer you to the dietician, the psychiatric nurse and, if necessary, to the internal specialist.

The lab also takes some blood tests.

On the first intake, the surgeon determines your target weight based on your weight at that time. The goal is to lose 10% of your weight at that time.

Internal specialist

The internal specialist will check, partly based on the results of your blood test, whether there are medical reasons (for example, an underactive thyroid) that are causing you to be overweight. The internal specialist may refer you to a lung specialist.

Dietician

You will then have your first meeting with the dietitian. The dietitian provides background information on nutrition and eating habits. A lifestyle change is essential for a good result.



Psychologist and/or psychiatric nurse

You will receive a call for the initial intake with the psychologist or psychiatric nurse. The psychologist or psychiatric nurse assesses whether there are serious psychiatric disorders that must first be treated properly. The psychologist or psychiatric nurse will also assist you in developing the habits you need after surgery.

Follow-up appointments

Psychologist and/or psychiatric nurse

Based on the data from the first intake, you will receive customised advice and possibly additional treatment.

Dietician

The dietitian will review the changes to your diet together with you. You will also receive additional advice for the period before and after any surgery.



Decision to operate

The phase before surgery allows you to change your lifestyle. The team of experts will determine whether you qualify for the procedure. If you are a suitable candidate, the team will refer you to the surgeon.

To undergo this operation, you must be and remain motivated. You must permanently change your eating and exercise habits to achieve and maintain weight loss. The operation is an important aid.



The preparation at Fundashon Mariadal

At the outpatient clinic, the surgeon will discuss the type of surgery with you: sleeve resection or gastric bypass (see page 9). He will also discuss the risks and results of these procedures with you. In principle, the operation is performed using keyhole surgery (laparoscopy). This means recovery is faster and less painful. There is less risk of complications, and the cosmetic result is better. Nevertheless, during the operation, it is possible that the traditional (open) way of operating will be switched to. For example, because of adhesions due to previous operations or technical problems.

The operation will not be performed at Fundashon Mariadal but in the Horacio Obuder Hospital (HOH) in Aruba. In principle, the surgeon performs the operation together with one of the surgeons at HOH Aruba (Dr A. Ponson or Dr D. Daryanani).

The surgeon on Bonaire requests the operation. The bariatric outpatient clinic in Aruba schedules it. As soon as the surgery date is known, the surgeon will order a number of tests. This involves a chest X-ray, an ECG (electrocardiogram) and a blood test. An application for the operation is then submitted to the Health Insurance Office (ZJCN).

Preparation at the Horacio Obuder Hospital

About a week before the operation, you will have an appointment with the Bariatric Consultant (obesity consultant) in Aruba. He or she will discuss the latest dietary advice with you. The consultant also arranges the pre-screening with the anaesthetist before the operation.

The anaesthetist will talk to you about the anaesthesia during the operation.



Horacio Obuder Hospital - Aruba

Losing weight

Gastric bypass surgery is not without risk. A large liver and/or a lot of belly fat increase the risk of complications. To avoid complications as much as possible, you are required to lose as much weight as possible during the procedure and to follow a strict carbohydrate-restricted diet for the last week before the operation. This can be done with meal replacements, such as

Modifast and Weight Care, for example, or by only consuming cooked and raw vegetables and a protein component such as meat, fish, chicken, eggs or cheese. This diet makes your liver smaller, and you have less belly fat. There is more space in the abdominal cavity, and the surgical risks are reduced.

Important

If you have diabetes and are taking medication or injecting insulin then you have a high risk of low blood sugar (hypoglycaemia) due to the meal replacements or the low-carbohydrate diet. Therefore before you start, speak to your diabetes nurse or doctor about adjusting the amount of medication.

Type of operation



Sleeve resection

In this method, the surgeon removes a large part of the stomach. The part that is removed is called the 'greater curvature' of the stomach. It is the big round part on the left side of the stomach. The shape and size of the stomach changes from that of a rugby ball to that of a banana.

The part of the stomach where food goes to the intestine, the pylorus (muscular valve located between the stomach and the small intestine), remains intact.

The volume of the stomach is considerably reduced. After this operation, you lose an average of 60-70% of your excess weight. The advantage of this operation is that it is less invasive than a gastric bypass. Because the normal route of the digestive tract is preserved, you also have fewer diarrhoea complaints and vitamin disorders. A gastroscopy (stomach examination) is also still possible.



Gastric bypass

In this method, the surgeon creates a bypass. Your stomach is not removed. The stomach is divided in two, creating a reservoir with a capacity of about 20 millilitres. This is attached to the small intestine. Further on, the rest of the stomach is connected to this small intestine. As a result, the

food only comes into contact with digestive juices at a later stage so that the intestines do not absorb all of the food.

The gastric bypass is used in patients who also suffer from frequent gastric reflux complaints and those with a sweet tooth. After this operation, on average, you will lose 65-75% of your excess weight. This method increases the risk of diarrhoea and vitamin disorders. That is why it is essential that you have check-ups for life.

The team also treats patients who have had a gastric bypass or gastric band in the past but now have complaints or have not lost enough weight. We perform a gastric bypass for these patients.

A gastric band only gives a weight loss of 40-50% of the excess weight. In addition, 20% of these patients have technical problems. For these reasons, our surgeons no longer put in gastric bands but we do remove them.

Admission period

In principle, you will be discharged from hospital one or two days after the operation. If the operation is not possible via keyhole surgery, the hospital stay may be longer.

If everything goes smoothly, you will travel back home within one week after the operation.

Possible complications

The chance of complications after gastric surgery is only a few per cent. The main and most dangerous complications are:

- Leakage of the join or seam leakage. This occurs in 1-2% of patients.
- Leg thrombosis leading to a pulmonary embolism, occurs in less than 1% of patients.

The chance of death as a result of the procedure is less than 0-0.5%.

We know from research that the risk of death without surgery is much higher. Of course we try to do everything we can to avoid complications for you. You can do your part by quickly getting and staying active again after surgery and after discharge. This reduces the risk of thrombosis. We obviously pay a lot of attention to this during and after the operation.

It is very important to follow the advice of the treatment team about food intake, taking antithrombotic medication and taking multivitamins. It is also very important to get active again after surgery.

Other possible complications include:

- pneumonia;
- bleeding;
- wound infection.

With keyhole surgery, these risks are less than with traditional operations due to the faster recovery, the more accurate technique and the smaller wounds.

The phase after surgery

The supervision and treatment after the operation is just as important as the previous phases for a successful result. The excess weight does not come back in people who adhere to the dietary and exercise recommendations. In addition to regular medical check-ups, there is an aftercare programme that consists of two group meetings, in which a topic is discussed each time. A psychologist and a dietician supervise these meetings. The sessions are aimed at maintaining a healthy diet and preventing relapse.

Your effort

The treatment of serious excess weight requires a lot of effort from you. Without your commitment, you will not get the desired result, and the treatment will have no effect. That is why we apply the rule: if you miss two appointments, we stop the treatment. Obviously, this does not apply if you cancel and reschedule an appointment in advance.



Costs and reimbursement

The Health Insurance Office (ZJCN) reimburses gastric reduction operations if you meet the criteria.

The multivitamins that you have to take after surgery (in principle for life) are at your own expense (about \$15 per month).



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