

# Practical advice for patients following bariatric surgery

Information for  
patients



Abdominal Medicine  
and Surgery

# The aim of this leaflet is to provide you with practical and useful information after your discharge from the specialist bariatric surgery service at The Leeds Teaching Hospitals NHS Trust

## Introduction

Typically, this specialist service provides follow up care for people who have undergone bariatric surgery for two years. This specialist care involves regular check-ups with the dietitian and consultant surgeon. The frequency of these follow ups can vary and will differ from person to person.

After two years you will be discharged and your GP will continue to support you. This information will outline the lifelong follow up care that is recommended for you. The recommendations are in line with the National Institute for Health and Care Excellence (NICE) clinical guideline CG189 - Obesity. However, this is a shared care model, which means that should the need arise your GP can refer you back for specialist care.

It is important that you are aware of the lifelong commitments after bariatric surgery and your roles and responsibilities in helping you to achieve success post bariatric surgery. These responsibilities include:

- Take lifelong prescribed nutritional supplements
- Follow dietary and any other recommendations given by specialist team
- Attend for follow-up appointments with your GP when arranged (this should be an annual review)
- Provide follow-up information as needed
- Seek help via GP if experiencing new symptoms or struggling to follow any recommendations you have been given
- If you move, inform your new GP of your history of bariatric surgery
- Inform your GP if you plan to become pregnant (or that you are pregnant).

This booklet is aimed at people who have had a Gastric Bypass (GB), a Sleeve Gastrectomy (SG), or an Adjustable Gastric Band (AGB). It may also be of use to GPs who are providing lifelong support to people who have had bariatric surgery.

This information will outline the following:

- Recommended annual blood tests
- Recommended lifelong vitamin and mineral supplementation
- Advice regarding re-referral back to a specialist bariatric team
- How to access additional community services.

## Background

It is often thought that bariatric surgery is a quick fix for the treatment of obesity. This is not the case. Obesity is a complex disease which can present in different ways and can vary from person to person. It impacts both mental and physical health significantly.

Because of its complex nature, the treatment for obesity is often complex and may have many different elements. For this reason, support in the long term is often needed. This maybe to help address issues such as weight regain, changes in diet and lifestyle, in addition to new or long standing physical and mental health issues. It will also help minimise the risk of nutrient deficiencies.

The Leeds Teaching Hospitals NHS Trust utilise the recommendations outlined by the British Obesity and Metabolic Surgery Society (BOMSS) and some of these are outlined within this information. Full details of BOMSS nutritional guidelines can be viewed online: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/obr.13087>

It is important to check the BOMSS website for any updated information: <https://bomss.org/>

This website also contains a GP hub, which has useful information with regards to bariatric surgery and lifelong care requirements.

## The impact of surgery on nutritional status

Dependent on the type of surgery, the ability to absorb micronutrients from food will vary.

Surgical procedure	Impact on nutrition
Gastric band	No impact on absorption  Over tight gastric band affects nutritional quality of diet including protein and iron
Sleeve gastrectomy	May be some impact on absorption including iron, vitamin D and vitamin B12
Gastric bypass	Impacts on absorption of iron, vitamin B12, calcium and vitamin D  Long limb bypasses may affect absorption of protein, fat, vitamin A and trace elements

Table 1: British Obesity & Metabolic Surgical Society GP Guidance: Management of nutrition following bariatric surgery

## The impact of surgery on dietary intake and habits

Upon discharge from the bariatric service it is expected that people are able to manage a solid diet with a wide range of foods and textures. Whilst some foods, e.g. bread, fibrous vegetables and chewy meats are often poorly tolerated, most people can eat foods with a wide variety of textures.

There are some dietary and lifestyle habits which may help improve tolerance to a wide range of foods. These habits are encouraged to help maintain weight loss and minimise risk of weight regain.

Dietary and lifestyle habits include:

- Eating small portions, using a side plate or tea plate to help with portion control
- Eating slowly, taking about 20 minutes to eat a meal, throwing away any remaining food
- Eating three regular meals per day
- Avoiding eating and drinking at the same time, leaving 30 minutes before and after a meal
- Avoiding all fizzy drinks, including sugar free varieties
- Avoiding snacking and grazing behaviours, snacks should be low calorie, e.g. light yogurt, fruit, or rice cakes.

It is worthwhile thinking about what your current dietary habits are like. Over time things can change without you realising and this can lead to weight regain. It can be helpful to check to see how your diet and habits compare to the list above.

## **What should be checked at an annual review**

Everyone is different so what you discuss at your annual review will vary from person to person, however, there are some standard recommendations.

### **1. Blood tests**

These may vary depending on the procedure you have had. We recommend that you have your blood levels checked every year lifelong to reduce the risk of you developing a nutrient deficiency. Nutrient deficiencies can have a negative impact on your health but try not to worry if you get an abnormal result as your GP or specialist team can make recommendations to help improve them.

Blood tests	Surgical procedure		
	SG	GB	AGB
Liver and Renal Function tests	✓	✓	✓
Full blood count	✓	✓	✓
Ferritin	✓	✓	✓
Folate	✓	✓	✓
Calcium	✓	✓	✓
Vitamin B12	✓	✓	X
Vitamin D	✓	✓	✓
Vitamin A	X	X	X
Zinc	✓	✓	X
Copper	✓	✓	X
Selenium	✓	✓	X
Urea and Electrolytes	✓	✓	✓

*Table 2: Recommendations for annual blood tests dependent on procedure.  
Information taken from British Obesity and Metabolic Surgery Society Guidelines  
on perioperative and postoperative biochemical monitoring and micronutrient  
replacement for patients undergoing bariatric surgery - 2020 update*

## 2. Supplements

It is recommended that you take nutritional supplements lifelong after bariatric surgery. GB and SG reduce the amount of food eaten and reduce the amount of nutrients absorbed by your gut. ABG reduces the amount of food you eat but does not impact on the amount of nutrients absorbed in your gut. Therefore, there are some differences in the supplements you need to take depending on the procedure you have had.

If you have an abnormal blood result, check that you have been taking your supplements regularly. If you get out of the habit of taking them it can lead to levels in the blood reducing. Your GP might also provide you with additional supplements to help improve blood levels.

<b>Routine post-operative vitamin and mineral supplementation</b>	<b>Surgical procedure</b>		
	<b>SG</b>	<b>GB</b>	<b>AGB</b>
<b>A - Z multivitamin and mineral which includes iron, 2mg copper and 400µg folic acid e.g. Forceval</b>	✓	✓	✓
<b>Iron</b>  e.g. 200mg ferrous sulphate 210mg ferrous fumarate 300mg ferrous gluconate daily twice daily in menstruating women	✓	✓	x
<b>Vitamin B12</b>  Intramuscular injections every three months	✓	✓	x
<b>Calcium and vitamin D</b>  e.g. Calceos, Calcichew D3 Forte, or Adcal D3 twice daily	✓	✓	✓

*Table 3: Recommendations for routine supplementation dependent on procedure. Information taken from British Obesity and Metabolic Surgery Society Guidelines on perioperative and postoperative biochemical monitoring and micronutrient replacement for patients undergoing bariatric surgery - 2020 update*

Sometimes you might need additional types of supplements depending on your annual blood test, in addition to any signs and symptoms you might have. Some common signs and symptoms are listed on the next page. You should discuss these with your GP.

- Worsening night vision
- Dry eyes
- Unexplained fatigue
- Difficulty swallowing
- Frequent vomiting
- Rapid, uncontrolled, or unexpected weight loss
- Chronic diarrhoea
- If you are consistently drinking more alcohol than the recommended safe levels

If you are worried about a new symptom please discuss this with your GP as they may be able to advise you, carry out some blood tests, or refer you to a specialist. You should not wait until your annual review to talk to your GP about any concerns you might have.

### **3. Things you should talk about at your annual review**

We recommend that after discharge from the bariatric surgery service you attend a yearly appointment with your GP. Below is a list of things you might want to discuss with your GP.

- Your nutritional intake. Talk about the types of foods that you are eating on a day to day basis. Have these types of foods changed over time?
- Nutritional monitoring. What are the results of your blood tests?
- Are you taking the right nutritional supplements? Use the table on page 8 to see if you are taking the right supplements, Depending on your blood test results these might need changing.

- What is your weight? After the first two years we recommend that you focus on keeping your weight stable. If your weight has increased try to maintain positive lifestyle changes, consider keeping a food diary, and be as active as possible.
- Have any of your other health issues improved or worsened? Some health issues can be linked to your weight, as you lose or gain weight you might need different treatments.
- Are you experiencing any unusual symptoms? Symptoms such as vomiting, constipation, or heartburn may be linked to your surgery or diet and lifestyle.

## **Additional community services**

Obesity is a lifelong complex condition. Like many other complex conditions, ongoing monitoring and support is an essential part of maintaining weight loss and the health benefits gained from bariatric surgery. Below are some suggested services which you can access after you have been discharged from the specialist bariatric surgery service:

- **Tier 3: medical weight management:** The Tier 3 Specialist Weight Management Service offers a weight management programme for a period of 12 to 18 months that supports adults with severe and complex obesity to lose weight through a range of interventions including psychological approaches and dietary changes.
- **Commercial weight loss programmes:** Programmes such as Slimming World and Weight Watchers can provide useful support and advice on a weekly basis in addition to online resources.

- [\*\*www.wlsinfo.org.uk\*\*](http://www.wlsinfo.org.uk): a website run by charity Weight Loss Surgery Info. It provides useful information, recipe ideas and signposting to support groups.
- [\*\*www.nhs.uk/oneyou\*\*](http://www.nhs.uk/oneyou): a NHS website and app which provides support and advice on ways to improve diet and lifestyle.

## **When to seek support or referral back to a specialist centre**

In some cases, your GP might need to refer you back to the specialist bariatric surgery service for more specific advice. Below are some common reasons for re-referral. You do not need to wait for your annual review to discuss these issues.

- **Difficulty swallowing and / or vomiting:** This may be due to pouch or oesophageal dilation, band problems, scarring or ulcers and needs prompt investigation.
- **Abdominal pain:** This may be related to hernias, gallstones or unrelated and needs assessing.
- **Heartburn / reflux:** This may respond to simple medication but should be investigated if it persists. Coughing at night or reflux when bending over may also signify this problem.

There is a long-term risk of developing acid reflux (heartburn and or regurgitation) after a sleeve gastrectomy of approximately 30%. This may require treatment which could be medical or surgical. Chronic reflux can lead to Barrett's Oesophagus. Barrett's Oesophagus could lead to development of abnormal cells in the lining of the oesophagus known as dysplasia. Dysplasia is a pre-cancerous condition and can be treated to prevent progression. It is recommended that a patient undergoes an endoscopy five years after a sleeve

gastrectomy to identify Barrett's oesophagus and undergo monitoring of this if it is present. It is recommended that the patient request a referral from the hospital to facilitate this.

- **Infection at gastric band access port:** Referral required unless it directly follows the surgery or a band fill injection and responds rapidly to antibiotics.
- **Weight regain or loss of restriction:** Weight regain should be managed by appropriate dietary advice or support to develop healthy eating behaviours in the first instance. Re-referral or discussion with the specialist Tier 3 or 4 service should be considered if further surgery is an option.
- **Diarrhoea or abdominal pain after eating or drinking:** This may indicate dumping syndrome. If it does not improve by eating small meals slowly and avoiding carbohydrates and fluids at the beginning of a meal, re-referral may be needed.
- **Sweating or dizziness after eating or drinking:** This may be from post-prandial hypoglycaemia, especially if provoked by high-glycaemic index foods or drinks. Re-referral is recommended for confirmation of the diagnosis, exclusion of other causes, and dietetic and medical advice.
- **Confusion, eye problems, hair loss, pins and needles, and a wide variety of other disturbances:** These can occur with vitamin and mineral deficiencies. This should be investigated and re-referral made if concerned.
- **Excess skin:** Psychological or physical problems related to excess skin should prompt referral to plastic surgery service.

## Patient specific details

Bariatric surgery details	
Patient name	
NHS number	
Emergency contact number	
Type of surgery	
Specific details about the surgery	
Date of surgery	
Current vitamin and mineral supplements	
Date of discharge from specialist centre	
Additional information	

## References

O'Kane, M., Parretti, H.M., et. al. (2016), Guidelines for the follow-up of patients undergoing bariatric surgery. Clin Obes, 6: 210-224.

O'Kane, M, Parretti, HM, et al. British Obesity and Metabolic Surgery Society Guidelines on perioperative and postoperative biochemical monitoring and micronutrient replacement for patients undergoing bariatric surgery - 2020 update. *Obesity Reviews*. 2020; 21:e13087.

One you NHS, Better Health, Lose weight, Get active, Quit smoking - [www.nhs.uk/better-health/lose-weight](http://www.nhs.uk/better-health/lose-weight)

Weight Loss Surgery (WLS) info - [www.wlsinfo.org.uk](http://www.wlsinfo.org.uk)





## What did you think of your care?

Scan the QR code or visit [bit.ly/nhsleedsfft](https://bit.ly/nhsleedsfft)

***Your views matter***



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