

Gastric bypass- Guidelines for dietitians

Clinical Decision

The heaviest patients and the most seriously ill should be treated surgically. Other treatments should have been tried before any patient comes forward for surgery. This leaflet is aimed at dietitians who do not normally work in the surgical obesity field but who may come across a patient who wishes to know more about the effect of a gastric bypass or who has undergone a gastric bypass. The patients may have had their surgery in the UK or have travelled to Europe for it.

Indications for Surgery

The NICE guidelines state that surgery to aid weight loss is a treatment option within the criteria below:

- There is evidence that all non-surgical options have been tried, and there is failure to maintain or achieve an adequate, clinically beneficial weight loss for 6 months.
- There are no clinical contra-indications to the surgery
- The person has or will receive intensive management in a specialist obesity service.
- The person commits to the need for long term follow up.
- Body Mass Index equal or greater than 40 kg/m² or Body Mass Index equal to or greater than 35 kg/m² with significant co-morbidities. For adults with a BMI > 50 kg/m² obesity surgery is recommended as a first line treatment.

People, who are morbidly obese, may consider having gastric bypass surgery to aid weight loss. Many patients will have presented to the surgical centre with a long history of dieting and see this as a method to help them to control their dietary intake. For additional criteria for children, please refer to the recommendations in the NICE guidance.

What is a Gastric (roux en y) bypass?

A diagram of the gastric bypass is shown overleaf. The surgeon creates a small stomach pouch ranging from 15 – 30 ml in volume. The small intestine is cut to form two limbs. These limbs of the by-pass can vary in length, with surgeons preferring their own technique but are generally between 0.75 M and 2.0M. Usually the heavier patients have longer limb lengths. The purpose of the small pouch is to restrict portion sizes. The bypass may affect the absorption of food and nutrients (calcium, iron and B12.) The operation results in good weight losses which are generally maintained.

The operation may be done openly or laparoscopically. Generally, those having the laparoscopic procedure will have a shorter length of stay in hospital.

How Does the Gastric Bypass Work?

The gastric bypass aims to aid weight loss by two mechanisms: restricting the food eaten and also producing some malabsorption from the intestinal bypass. Consequently the patient will have a large energy deficit resulting in a very fast weight loss especially in the first few months. The creation of the small stomach pouch is also thought to alter the gut hormones which affect satiety. Therefore, many patients report that they no longer feel hungry. Some patients experience dumping syndrome if they eat sweet sugary food and this acts as a deterrent against eating sweet foods. The bypass itself affects the absorption of nutrients especially calcium, iron and B12. With the longer limb lengths, more malabsorption is likely. Over time, the quantity and quality of the food eaten improves and increases and the rate of weight loss slows down so that eventually the patient plateaus at a new and lighter weight. As an approximate guideline the dietary intake can go from less than 500 kcals in the first few weeks to 1500 kcals at the end of the first year.

Long Term Advice

In order to achieve and maintain optimum weight loss, appropriate dietary and lifestyle changes are needed. The gastric bypass aids weight loss but may also result in the patient eating a less healthy diet than before, therefore dietary assessment is essential to prevent long term nutritional problems occurring.

If you, as a dietitian come across a patient who has had gastric bypass surgery, it is helpful to understand the various stages of the diet. If patients have had surgery in the UK they will still be under the care of their centre and should be encouraged to contact the professionals there if they have any questions or problems. Similarly, if you have any concerns about the patient, contact the dietitian at the centre where the patient underwent surgery. This is more difficult for those patients who have had surgery abroad, and in these circumstances you may find it difficult to obtain information about the style of bypass given to the patient.

Dietary consequences

One to two days after surgery, many centres will carry out a gastrograffin swallow to ensure that there are no leaks. The patient is then allowed to progress to free fluids. Dependent on the centre and the surgeons preferred practice, patients will progress from fluids to a pureed diet over a variable number of weeks following surgery. However, over time, the quality and quantity of food will both improve and increase for all patients.

Depending on the centre, some patients will have been advised to remain on a liquid diet for up to 4 weeks after surgery. It is important to check that the patient is taking an adequate amount of fluid to prevent dehydration and that these are appropriate to maintain adequate nutrition. In the early stages, the amount a patient is eating is very small. Protein intakes are particularly low and care must be taken in helping patients make the most appropriate choices with their diet.

When the patient begins to eat, they will progress through a pureed diet to a soft diet and then one of a more normal texture. 18 months to 2 years following surgery, the volume of food that the patient can eat at any one time will increase. They will also be able to eat a greater variety of food but may still have problems with certain textures.

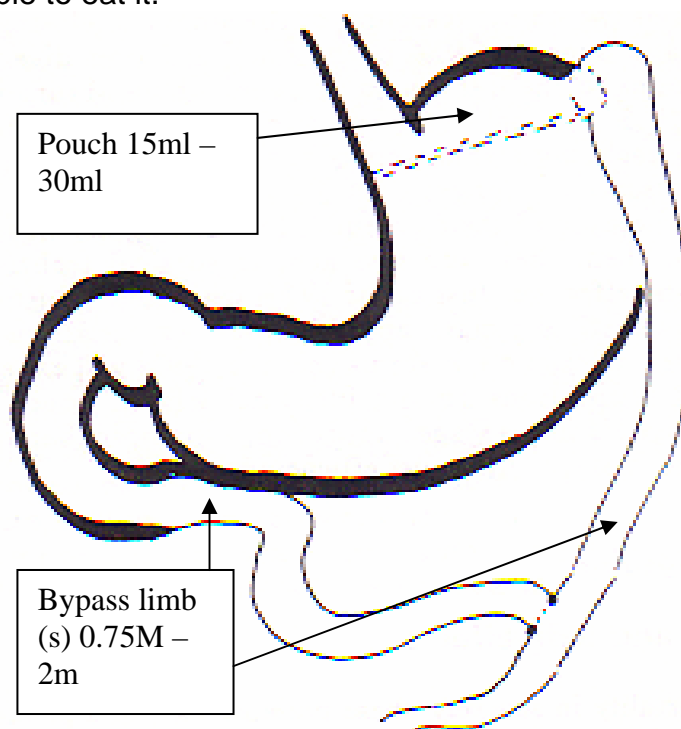
When seeing a patient who has had gastric bypass surgery, it is useful to consider the following:

Speed, Volume and Texture

Speed: Patients are advised to slow the process of eating and drinking to a minimum. Eating slowly will benefit the patient recognising satiety.

Volume: The stomach pouch is very small. Although fluids will slowly pass through into the by-pass, solid food needs to be reduced in volume. In the first few weeks following surgery, patients will find that two to three teaspoons is sufficient at one meal. The volume tolerated will increase with time, but patients must not try to over-distend the pouch.

Patients are advised to avoid eating and drinking at the same time. They will have been advised to sip fluids and stop drinking for 1 hour after eating, to prevent regurgitation. They will often find that if they have a drink before a meal that they are unable to eat it.



Texture: Initially, patients will have been advised to eat foods of a smooth texture to benefit the passage through the anastomosis into the bypass. They will have been encouraged to get into the good habit of chewing food thoroughly despite it being smooth as this also reduces the time taken with food. Over time, the smooth puree textures will progress to soft lumps and crisp foods that dissolve easily. Individuals will be on minced textures and foods that are easily broken with a fork. Gradually they will advance towards more normal textures. The rate at which they do so will vary between individuals.

Fluid: Taking a sufficient fluid intake is often problematic, because of the small stomach pouch and the need to sip at liquids. Many find that using a sports bottle with 'sip cap' or straw is a good way of increasing the fluid intake. Measurement of the amount of fluid taken each day is also easier. 1,500ml to 2,000ml per day is important especially in the early stages when the food intake is low or in hot weather. The fluids must be sugar free to prevent dumping syndrome. Fizzy drinks are not recommended as the gas may cause pouch distension and discomfort at first.

Protein: Following surgery, many patients struggle with meat and poultry and this may be for a significant period of time. In the early stages especially, the volume of food allowed at any one meal is greatly reduced, and therefore an adequate protein intake can be difficult. However, encouraging the patient to casserole, stew or slow cook their meat or eat softer types such as corned beef will improve their intake.

Milk and milk-based products are invaluable. They are a good source of protein, calcium and are generally reduced to a smooth texture! Individuals who cannot tolerate milk provide more of a challenge to the dietitian! Fish, eggs, pulses and tofu can be introduced quite quickly into the dietary regimen, but are not always popular. Good dietary counselling with lots of practical suggestions for alternative meals is important.

Vitamins: A multi-vitamin and mineral supplement taken on a daily basis is required after surgery. Many provide a good range of vitamins and minerals including iron, selenium and zinc. There should be no need for patients to buy expensive preparations over the internet. Dissolvable and liquid preparations can prove useful, but watch for sugar content. Advice on Vitamin B12 varies between centres with some centres giving no supplementation and others recommending 3 monthly injections. It is important for the centre to carry out nutritional screens.

Minerals: Calcium intake can be low unless the patient is taking three milk product portions daily. In addition, calcium absorption may be affected because the lower section of the stomach and the duodenum is bypassed. Therefore, supplementation with calcium may be necessary. Iron status can be an issue (15 – 30% with anaemia), partly because of poor diet including low red meat intake and iron absorption being adversely affected. A full blood count should be carried out on a regular basis. A multi-vitamin preparation with iron generally tends to support those with a limited range in their diet.

Dumping syndrome: Many patients adversely react to the ingestion of large amounts of refined carbohydrate. For this reason, only sugar free items are encouraged to prevent dumping. Patients may get caught out by medicines etc. that may have high sucrose content.

Dietary pitfalls: Because the portion sizes are small and solid food is less readily tolerated, it may result in the patient eating a less healthy diet. Many patients soon discover that crispy textures and fatty foods may slip down more easily - and this can lead to problems in the long term. Many patients do report problems with bread, but will find that the texture of crispbreads or toast is easier to eat. So instead of a sandwich for lunch, they should be encouraged to have crispbreads with wafer thin meat, soft cheese or beans on toast for example.

Many patients can be surprised and ill prepared for the amount of dietary changes that they will have to make, especially those that have done most of their research on the internet and travelled abroad for surgery.

Long Term follow up

After the surgery, ideally follow up needs to be more frequent as good habits are developed in this period. It is also the time of the greatest rate of weight loss. The patient should be encouraged to remain in contact with their surgical centre and dietitian even if this is by telephone.

Most centres do offer a minimum of an appointment at 6 weeks, 12 weeks then 6 months and then a year in the first year. In addition there may be more frequent contact with the dietitian. Yearly contact from that moment may prove problematic but is recommended as centres need to continue to monitor their patients. However, some patients move on from their surgery and are content with weight loss and diet and see no benefit in further contact. Others may have not had the degree of success they or you thought and have disappeared from contact. Do encourage them to make contact. An increase in weight two years after surgery is possible as dietary adherence starts to alter. Weight will never be regained to its previous level, but an increase by several kilograms is possible. Discussion about motivation and dietary change is useful.

Any dietetic consultation should look at the overall balance of the diet, making sure that protein intake is adequate, vitamin and mineral supplementation is taking place and that weight loss is not too rapid.

If weight is being lost too quickly then nutritional adequacy needs to be confirmed. If the weight loss is too slow then it tends to suggest that the dietary guidelines are not being adhered to. (Unfortunately, it may be easier to snack rather than eat balanced meals after surgery.)

Essential fatty acid intake needs to be assessed long term in those that are still restricted in the amount of food they are eating.

Issues for the Community Dietitian

A patient, who has been unsuccessful at losing weight, may seek your advice on surgery. Questions to explore:

- Does the patient understand the severity of their obesity?
- Does the patient understand the implications of the surgery?

By exploring beliefs and knowledge you can better tailor the pre-op education with a view to increasing the motivation for weight reduction.

There is a need for life-long follow up after these procedures, therefore compliance is worth exploring. Dietary compliance may have been an issue in the past; however, periods where significant weight loss has been achieved yet regained, is a good indicator.

Regular attendance at appointments is also a good indicator and some surgeons may require people to stop smoking, which also indicates compliance.

Assessment of social environment is important. Some surgical teams will have the benefit of a psychologist. However, in the absence of this, it is useful to explore how other members of the family feel about the surgery and whether the patient can visualise life after losing 50% or more of their excess body weight. Some patients receive secondary gain from their obesity (lack of sexual attention, invalid role, unemployment etc), whereas other family members may well feel threatened by their partner losing weight and adopting a different role etc.

These patients require lifelong follow up. At present there are few patients undergoing these operations. This will grow in time and therefore there is a significant impact on local funding. However, as mentioned above many patients become lost to regular follow-up and therefore the greatest threat is a patient attending a general clinic who has undergone this surgery in the past.

Although the stomach pouch may distend with time, and therefore the capacity increase, the bypass is still in place and operating. A full dietary check is required for dietary adequacy. General weight loss principles then fall into place, with an encouragement to reassess portion size and dietary choices. However, if the individual has not lost the weight they were hoping to then assessment as to the reasons why this may be the case is useful. It may well be that they as individuals had not fully accepted the changes they needed to make and the effect that their weight loss would have on other people.

Where to go to for support

Initially, contact the centre where the patient has had their surgery. In addition there are a number of dietitians with experience of gastric bypass who would be willing to help.

To contact these go through:

Web sites

Consult: www.nice.org.uk/CG43 Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children

There are two websites that you may wish to visit:

www.bospa.org

www.WLSinfo.co.uk

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Gastric bypass Guidance for dietitians October 2007