

## **INFORMATION FOR PATIENTS CONSIDERING BARIATRIC SURGERY:**

Obesity can lead to many health problems - these are mainly of the following types:

### **Obesity associated health risks:**

- Psychosocial
- Cardiovascular Disease Risks
- Additional Health Risks

Some consequences of obesity are psychosocial. Obese people are targets of systematic social discrimination. The psychological stress of social stigmatization can cause low self-esteem which, in turn, can hinder academic and social functioning.

Obese people are at high risk of developing risk factors for cardiovascular disease (CVD), including high cholesterol levels, high blood pressure, and abnormal glucose tolerance.

Other health conditions associated with increased weight include asthma, hepatic steatosis, sleep apnoea and Type 2 diabetes.

Type 2 diabetes can result in advanced complications such as CVD and kidney failure

Though simplistically, people gain weight when the calories they eat and drink are greater than the calories they burn and vice versa, but there is compelling evidence that under physiological conditions the human body vigorously defends its weight, making it difficult for any person to sustain any weight loss in the long run. A good example is like trying to hold our breath – some of us can hold it longer than others, but the longer we hold it, the greater the urge to resume breathing and at a faster pace. Similarly, the more weight we lose, the greater the urge to regain the lost weight and to do so more quickly than would otherwise be the case.

### **Calorie requirement for an adult:**

The average maintenance level for women is 1900-2100 calories per day and the average for men is 2100-2900 per day. However, most of us severely underestimate the amount of physical activity required to utilise the calories we consume!

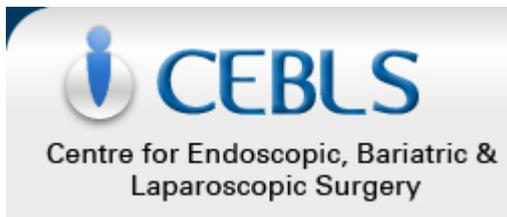
One small chocolate chip cookie (50 calories) ≈ walking briskly for 10 minutes.

One large gourmet chocolate chip cookie (250 calories) ≈ walking briskly for 50 minutes. The difference between a large gourmet chocolate chip cookie and a small chocolate chip cookie could be about 40 minutes of raking leaves (200 calories).

One jelly filled doughnut (300 calories) ≈ walking briskly for 60 minutes (1 hour)

A fast food "meal" containing a double patty cheeseburger, extra-large chips and a 24 oz. soft drink (1500 calories) ≈ walking briskly for 300 minutes (5 hours) / running at a 10 min/mile pace i.e. 6mph for 2½ hours.

Most people find it difficult to sustain this level of intense physical activity!



### **Role of bariatric surgery**

We know that with dieting and exercise, 60% will fail to sustain weight loss at 1 year, 80% will fail at 2 years and there is a 100% failure rate by 5 years – it is incredible! This is because our body defends our weight and the more weight we lose the harder it tries to restore the lost weight. The maximum benefit from dieting is at 6 months with rapidly increasing failure rate thereafter. In comparison, there is overwhelming evidence that bariatric surgery can induce long-term control of weight with remission and improvement of co-morbidities like diabetes, hypertension, hypercholesterolaemia etc.

However, a bariatric surgical procedure (band/bypass/sleeve) is not a stand-alone means of weight loss and failure to adhere to dietary instructions (e.g. consuming sweets, snacks or liquid calories) and to increase regular physical activity will result in failure to lose weight and development of nutritional deficiencies. On the other hand, if they decide not to undergo surgery then there is an 80% likelihood of regaining all weight lost by dieting within 2 years, developing complications and early death.

**Gastric Band** has a less than 5% risk of open conversion. Complications of this surgery include mortality risk (0.1%), liver injury, bleeding, visceral / neurovascular injury / perforation, infection, thromboembolism, post-operative dysphagia, scars, port-site / incisional hernia, band-slippage, band-erosion, band-rupture, dysphagia and nutrient deficiency. Band patients must eat slowly (1 mouthful per minute), carefully chew small mouthfuls for life, avoid fizzy drinks, avoid sugary food and may find it difficult to swallow bread, meat or other stringy food. Patients who hurry in eating often suffer from regurgitation / vomiting and may develop band slippage, erosion or oesophageal dilation. Patients must not take tablets or capsules and all oral medications have to be dispersible, liquid or crushed. Assuming that instructions are followed, patients can expect a 40-60% excess weight loss maintained at 8 years. They require life-long 6-monthly follow-ups by their doctors with appropriate blood tests to monitor for iron deficiency (haemoglobin and iron levels) and they must take life-long supplements.

**Gastric Bypass** has a less than 5% risk of open conversion. Complications of this surgery include mortality risk (1%), liver injury, bleeding, visceral / neurovascular injury / perforation, anastomotic leakage, infection, thromboembolism, post-operative dysphagia, stomal ulceration/stricture, scars, intra-abdominal / incisional hernia, small bowel obstruction, dysphagia, diarrhoea and nutrient deficiency (vitamins and minerals). Consuming sweets or sugary drinks may result in experiencing dumping syndrome (dizziness, flushing, sweating and tachycardia). Assuming that instructions are followed, patients can expect a 60-80% excess weight loss maintained at 8 years. They require life-long 3-monthly follow-up by their doctors with appropriate blood tests to monitor for vitamin (B12, Folate, Vitamin D) and mineral (Fe, Ca, MG, Zn) levels and they must take life-long supplements.

**Sleeve Gastrectomy** has a less than 5% risk of open conversion. Complications of this surgery include mortality risk (0.5%), liver injury, bleeding, visceral / neurovascular injury / perforation, infection, thromboembolism, post-operative dysphagia, scars, port-site / incisional hernia, staple line leakage, dysphagia and nutrient deficiency. Sleeve patients require careful chewing of small mouthfuls for life otherwise they may dilate their gastric



remnant with loss of weight-control. Patients who hurry in eating often suffer from regurgitation / vomiting. Assuming that instructions are followed, patients can expect an initial 50-60% excess weight loss within 2 years – there is a suggestion that patients may regain weight thereafter and long-term data is not yet available. They may require conversion to a gastric bypass or insertion of a band at a later stage. They require life-long 6-monthly follow-ups by their doctors with appropriate blood tests to monitor for iron, calcium and vitamin D deficiency (haemoglobin and iron levels) and they must take life-long supplements.

**POSE (Primary Obesity Surgery Endolumenal)** – This is a new procedure and only available to private patients in a few centres in the USA, UK and Europe. Spire Bushey is one of them. This procedure is performed endoscopically and a number of sutures are inserted into the stomach to create folds in the stomach to reduce the capacity of the stomach and early evidence suggests that it also reduces hunger. Unlike the gastric balloon, POSE is considered a long-term solution to weight loss and follow-ups are at present going on to find out the long-term effectiveness. POSE have a negligible risk of laparoscopic / open conversion. Complications of this surgery include bleeding, perforation, infection, thromboembolism, post-operative dysphagia and nutrient deficiency – the risk of mortality is negligible. POSE patients should carefully chew food in small mouthfuls for life - otherwise they may dilate their gastric remnant with loss of weight-control. Patients who hurry in eating often suffer from regurgitation / vomiting. Assuming that instructions are followed, patients can expect an initial 40% excess weight loss within 2 years – there is a suggestion that some patients may do better thereafter and some do less well but long-term data is not yet available. There is a 10-20% chance of losing less than 10% excess weight or failing to lose weight at all – the exact reason for this is not clear at present. The main advantage of the procedure is its safety over other procedures and the absence of any visible incisions or scars in the abdomen.

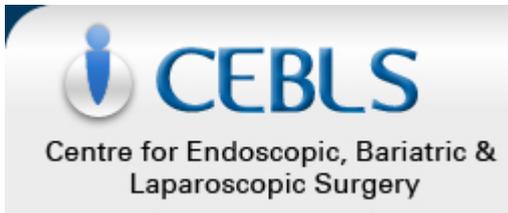
In case of weight loss failure, redo POSE, conversion to a gastric bypass or insertion of a band at a later stage may be possible. They should undergo life-long 6-monthly follow-ups by their GPs with appropriate blood tests to monitor for iron, calcium and vitamin D deficiency (calcium, vitamin D, haemoglobin and iron levels) and they must take life-long supplements.

**Revision Surgery** carries 4x higher risk of complication including leakage, bleeding, stenosis, ulceration, dysphagia etc.

*Pregnancy is contraindicated during the first 18-24 months after bariatric surgery.*

You can also find this information on my websites [www.obesitycliniclondon.co.uk](http://www.obesitycliniclondon.co.uk) and [www.cebls.com](http://www.cebls.com). Spire Bushey Hospital (<http://www.spirehealthcare.com/bushey/Weight-loss-surgery/>) hosts a bariatric support group for those considering or undertaking weight loss surgeries. The group meets on the first Tuesday of every month at the hospital. For further information or to book a place please call 020 8901 5505 or e-mail [info@spirebushey.com](mailto:info@spirebushey.com).

You can also watch videos of various operations at <http://www.obesitycliniclondon.co.uk>, if you wish.



### **The pre-operative liver shrinkage diet:**

- Before your operation, it is important to follow a special pre-op diet to help prepare your body for the surgery.
- Many people needing obesity surgery have a large fatty liver, which can cause difficulty for the laparoscopic surgery.
- Therefore it is necessary to follow a strict diet that is low in dietary carbohydrate and fat.
- This diet will encourage the body to use up glycogen stores (carbohydrate that is stored in the liver), thus helping to shrink the size of the liver.
- This diet should be strictly followed for at least **3-4 weeks** prior to surgery. This period can be shorter if you follow a special low calorie formula diet which the dietician can advise.
- It is essential to follow this diet; otherwise the liver could bleed heavily during surgery or there could be injury to organs.
- If this happens, the surgeon may have to do open surgery, instead of a laparoscopic procedure or even postpone surgery.
- You should use this period of time as a great opportunity to kick-start your weight loss and also to help get into the habit of eating a healthy diet.
- If you continue to eat this way after the surgery you will manage to successfully reach your weight loss targets
- Also the more weight you lose before the surgery the better, as it helps to reduce the risk related to surgery.

### **Important eating advice after your operation:**

Our postoperative protocol is as follows:

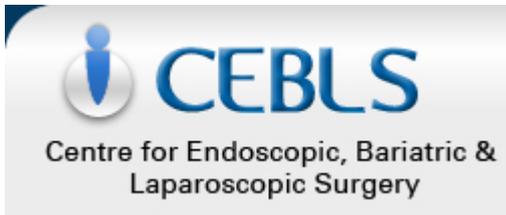
- Liquids for 2 weeks starting with sips of non-alcoholic, non-sugary and non-fizzy drinks immediately after your operation.
- Soft moist/blended diet for 2 weeks
- Slow introduction of soft diet after 4-6 weeks
- Life long vitamin and mineral supplementation

Further details are available from the dietician.

### **Eating and Drinking after Bariatric Surgery:**

After you have recovered from your operation and resumed normal diet, we recommend the following general dietary advice:

1. You should separate solids from liquids during your meals by at least half an hour.
2. You should eat one small mouthful a minute and chew it well
3. You should eat 3 meals including breakfast a day - your meals should consist of a maximum of 20 to 30 mouthfuls and taken over 20 to 30 minutes at least.
4. You must avoid consuming high energy foods or drinks (like fast food, crisps, chocolate, fruit juice, fizzy drinks or alcohol).
5. You must stop eating as soon as you feel full and not eat if you are not hungry.
6. You must not take tablets or capsules and all oral medications have to be dispersible, liquid or crushed.
7. You may find it difficult to swallow bread, meat or other stringy food.



Further details are available from the dietician.

**Returning to work:**

You may return to light work as soon as you feel comfortable - this is usually possible within 2 weeks of the operation. You should avoid strenuous physical activity or heavy lifting for 4-6 weeks.

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