

## Sleeve gastrectomy (gastric sleeve) surgery

Sleeve gastrectomy surgery is a weight loss procedure which is considered when diet and exercise have not worked, or when you have serious health problems because of your weight. It works by decreasing the amount of food you can eat at one sitting and by altering gut hormones that affect appetite and satiety (feeling full).

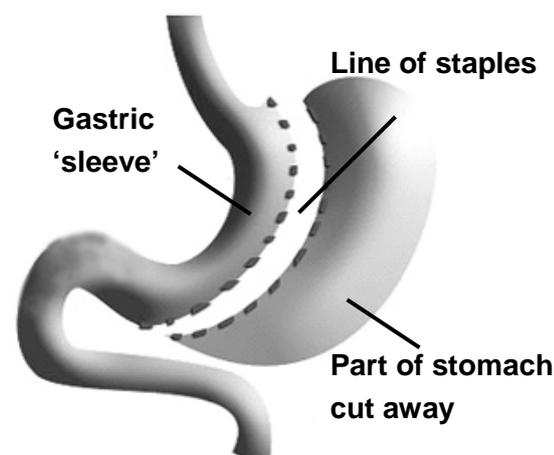
A sleeve gastrectomy is an operation to reduce the size of the stomach. This is achieved by stapling the stomach along its length and removing the excess portion, leaving a long tube or sleeve.

Although the shape of the stomach is drastically changed it continues to function normally, though the quantity of food consumed will be considerably less.

The gastric sleeve works in two ways. Firstly, it is a restrictive procedure, meaning that it achieves weight loss by restricting the amount of food that can be eaten at a meal due to the small size of the new stomach 'sleeve'.

It also works because it removes the part of the stomach that produces some of the hormones that stimulate appetite and hunger. The removal of these hormones usually results in a significant reduction or loss of appetite and a change in taste and food preferences away from fatty, sugary foods.

The operation is done under general anaesthesia. This means you will be asleep during the procedure. Sleeve gastrectomy is usually done using keyhole (laparoscopic) surgery. The operation usually takes about 1½ hours. You will usually be able to go home one to two days after your operation but it usually takes between four and six weeks to make a full recovery from a sleeve gastrectomy operation.



### What are the advantages of this type of surgery?

- Weight loss starts from the time of surgery.
- It is unusual usual for a patient not to lose a significant amount of weight – you can expect to lose roughly 50-70% of your excess weight over two years.
- The average excess weight loss over the first three years after a sleeve gastrectomy procedure is generally higher than with a gastric band but not as high as a gastric bypass.
- It can help with remission of type 2 diabetes. Many patients can come off or reduce their medication soon after the operation.

- Generally, it is a technically more straightforward operation than a gastric bypass and can usually be offered to most patients, including those where a gastric bypass may not be possible due to previous operations or other medical conditions.
- Less likely to get 'dumping syndrome' compared to gastric bypass.
- Does not involve re-positioning of the intestinal tract.

### What are the disadvantages of this type of surgery?

- The operative risks are generally higher than procedures that do not involve stapling of the stomach and/or bowel such as the gastric band.
- The surgery, the hospital stay and the recovery time are similar to a gastric bypass but longer than for a gastric band.
- Weight loss is usually slightly less than that seen after a gastric bypass.
- A sleeve gastrectomy may make symptoms of acid reflux worse and therefore, may not be suitable in patients with underlying bad acid reflux.
- It is not reversible.
- 15% of people will fail to lose a significant amount of weight following the sleeve gastrectomy operation.
- There is a risk of weight re-gain by stretching of the stomach 'sleeve' if portion sizes are not strictly controlled.

### What are the side effects and risks of this surgery?

As with any major surgery, sleeve gastrectomy surgery is associated with potential health risks, both in the short term and long term. For most people, the benefits in terms of losing excess weight are much greater than any disadvantages. In order to make an informed decision and give your consent, you need to be aware of the possible side-effects and the risk of complications.

### Side effects

Side-effects are the unwanted but mostly temporary effects of a successful treatment, for example, feeling sick as a result of the general anaesthetic.

- Afterwards, you are likely to have some bruising, pain and swelling of the skin around the healing wound(s) for a few days.
- You may feel or be sick after eating, especially if you try to eat too much.
- You may experience a change in food preferences – your likes and dislikes.

## Risks of the operation

Risks (or complications) are when problems occur during or after the operation. Most people aren't affected. Being very overweight increases the risk of complications following any operation.

Possible general risks include:

- Chest or other infection. You will be given antibiotics during the operation to reduce the chance of getting an infection.
- Blood clots in the legs (DVT) with the risk of a clot passing into the lung. Compression stockings and blood-thinning injections are used to help prevent DVT.
- Reaction to the anaesthetic or medication.
- Complications with your heart, breathing or blood circulation.
- In fewer than 1% of patients, the surgery may need to be converted from the keyhole approach to the traditional open surgical approach. This means making a bigger cut on your abdomen. This is only done if it's impossible to complete the operation safely using the keyhole technique.

The table below summarises the risks specific to having a sleeve gastrectomy procedure:

<b>Risk</b>	<b>What does this mean?</b>	<b>How is it treated?</b>
Death	The risk of death as a result of a sleeve gastrectomy is 1 in 600.	Most common cause of death is a blood clot in the lung (pulmonary embolism) or problems arising from a leak in the staple line.
Stomach leak	Leak from where stomach is stapled. About 5% of patients will experience a leak.	In the case of small leaks a drain may be placed in using x-ray. However, larger leaks may require emergency surgery to wash out the area and place drains.
Reflux	Reflux or heartburn may be a problem due to the smaller size of stomach and excessive acid secretion. 1 in 5 people experience reflux after surgery.	Treated with medication, usually tablets and often subsides after the first 2 years.
Gallstones	Up to a third of patients will develop gallstones during rapid weight loss.	About 7% of patients will need to have their gall bladders removed.

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Bleeding at operation site or from damage to other organs	Bleeding occurs in approximately 1% of patients.	In rare cases, an endoscopic exam or surgery may be needed to stop the bleeding.
Failure to lose weight	15% of patients do not lose the desired amount of weight or regain some weight. Many patients start to regain weight 2 to 3 years after surgery, usually due to stretching of the stomach 'sleeve' which allows patients to tolerate larger meals or by eating foods high in calories.	Failure to lose weight is usually due to a failure to follow the correct diet and exercise plan. Patients who 'graze' on food all day or constantly eat to the point of stretching their 'sleeve' can easily regain weight. Following dietary and exercise recommendations will prevent weight regain.

### Contact us

If you have any questions, please contact your clinical nurse specialist: Kath Hallworth-Cook  
0118 322 8811 [katharine.hallworth-cook@royalberkshire.nhs.uk](mailto:katharine.hallworth-cook@royalberkshire.nhs.uk)

### Useful websites

British Obesity Surgery Patient Association: [www.bospauk.org](http://www.bospauk.org)

Weight Loss Surgery Information: [www.wlsinfo.org.uk](http://www.wlsinfo.org.uk)

For more information about the Trust, visit our website [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

This document can be made available in other languages and formats upon request.

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