

What is the submandibular gland?

The submandibular glands are a pair of salivary glands under the jaw bone. Each gland produces saliva which goes through a long duct to its opening under the tongue at the front of the mouth. The production of saliva increases when we eat. The saliva secreted by the submandibular gland is a bit thicker than that produced by other salivary glands. Because of its thickness this saliva can sometimes form little stones.

What problems can you have with the submandibular gland?

The commonest problem is blockage of the salivary duct. This can be caused by the presence of stones or simply a narrowing of the salivary duct. Blockage of the salivary duct can cause a painful swelling of the gland when you eat. Sometimes the swelling may settle on its own. When the blockage is severe, it can lead to persistent inflammation of the gland. Occasionally, a painless lump may develop within the submandibular gland. Those lumps are often benign but need thorough checking, as up to half of them may be or become cancerous. Even benign lumps can get gradually bigger.

What investigations are you likely to have?

X-ray or CT scan of the submandibular gland: This is to see if there are stones inside the gland or the duct.

Sialogram:

The doctor fills the duct at the front of the mouth with some contrast liquid and then takes x-rays. This will show up stones or narrowing inside the duct.

Ultrasound:

This test uses sound waves to detect any lumps inside the gland.

Fine needle aspiration:

This can help to find out the nature of the lump. The doctor uses a fine needle to draw some cells out from the lump. The cells are sent to the laboratory for analysis.

Why operate on the submandibular gland?

- If stones inside the duct do not come out, the gland may swell up when you eat. These stones can be removed. This procedure is done through the mouth either under a local or general anaesthetic. Your consultant will discuss the options with you.
- If stones are stuck inside the submandibular gland, the gland can become permanently inflamed and swollen. If it gives you undue discomfort over a longer time, your specialist may advise to have the gland removed.
- If a lump has developed in the submandibular gland, your surgeon may recommend removing the gland. As a fairly high number of submandibular lumps can be cancerous the whole gland should be removed. By removing the gland we can find out whether it is benign or cancerous.

You may change your mind about the operation at any time, and signing a consent form does not mean that you have to have the operation.

The operation to remove the gland

The operation is performed under general anaesthetic, which means that you will be asleep throughout. An incision will be made in the neck below the jaw where the submandibular gland lies. The operation will take about an hour. At the end of the operation the surgeon will place a drain (plastic tube) through the skin in order to prevent any blood clot collecting under the skin. Most patients will require 24-48 hours in hospital after the operation before the drain can be removed and they can go home.

Possible Complications

Blood clot

A blood clot can collect beneath the skin (this is called a haematoma). This occurs in up to 5% of patients and it is sometimes necessary to return to the operating theatre and remove the clot and replace the drain.

Wound infection

This is uncommon in the neck but can happen if the submandibular gland was badly infected. Wound infection will require

antibiotic treatment. Pus collected under the skin may need to be drained.

Facial weakness

There is an important nerve that passes under the chin close to the submandibular gland. It makes the lower lip move. If it is damaged during the surgery it can lead to a weakness of the lower lip. In most cases this nerve works normally after the surgery, however in some cases weakness of the lower lip can occur, particularly when the gland is badly inflamed or if the nerve is stuck to a lump. This weakness is usually temporary and can last for 6 - 12 weeks. Occasionally there is a permanent weakness of the lower lip following this surgery.

Numbness of the face and ear

The skin around the wound will be numb for some weeks after the operation. It usually improves over weeks/ months.

Numbness of tongue

The nerve which gives sensation and taste to one half of the tongue runs close to the duct of the gland. It very rarely gets injured. However, if this nerve is damaged your tongue may feel numb immediately after the operation. This numbness will usually recover. Permanent numbness of the tongue is rare.

Injury to the nerve that 'moves' the tongue

Another nerve runs close to the submandibular gland that supplies the muscles of the tongue on that side (and hence helps with movement of the tongue). It would be very unusual for this nerve to be damaged in this surgery. If it were to occur, it is unlikely to produce any noticeable disability.

Will my mouth be dry?

You are very unlikely to notice a dryness of the mouth.

How long will I be off work?

You will need 2 weeks off work.