**Introduction**

The lining of the mouth contains many small saliva glands. In addition, there are three major glands on each side of the face, the parotid, submandibular and sublingual glands.

**What is the parotid gland?**

This is the largest of the three major glands. It lies partly in the front of the lower half of the ear and partly below the earlobe.

**Lumps**

The most common problem with parotid glands that is referred for treatment is a lump within the gland.

**What happens when I am referred for treatment?**

**Medical history**

Your surgeon will first take a medical history. He will ask not only about the lump but also about medical problems that might interfere with surgery and anaesthesia.
Examination
Your surgeon will inspect the gland, jaws and neck very carefully. You may also be given a general physical examination.

Other investigations
From the history and examination your surgeon will usually be able to diagnose the nature of the lump in your gland (what is causing it).

If surgery is required, he will probably arrange some routine blood tests (e.g. to make sure that you are not anaemic) and possibly a chest X-ray and ECG. Further investigations of the lump may be necessary in order to help diagnose its nature, size and exact position within the gland.

Choosing surgery
After a careful consideration of your medical history, examination and other investigations, your surgeon can discuss the diagnosis with you and recommend appropriate treatment. In the majority of cases surgical removal of the lump will be advised. The decision to have surgery is always yours. If you decide to have surgery, you will be asked to sign a consent form before the operation.

Are there any alternatives to surgery?
If you do nothing, the problem in your parotid gland will slowly get worse.

The bigger the lump, the more difficult it is to take it out safely and the greater the risk of nerve damage.

Sometimes the parotid problem needs extra treatment. The swelling needs to be taken out to find out what is causing it and to decide if further treatment is needed. Treating the lump with radiation or drugs on their own is not as good as an operation.

What will the surgery consist of?
In order to remove a lump in your parotid gland a parotidectomy operation is required.
Anatomy
The parotid gland is roughly wedge-shaped and fits in the groove between your jaw and the bony mound behind your ear (called the mastoid process).

Running through the gland are two nerves, the facial nerve and the great auricular nerve (see figure 1).

Figure 1 shows the parotid gland and surrounding nerves

The facial nerve is a ‘motor’ nerve: it supplies all the muscles that move the face on one side. The main trunk of the nerve penetrates the gland just below the earlobe and divides into many very fine branches within the gland. The great auricular nerve is a ‘sensory’ nerve: it enters the gland from below and its branches supply feeling sensations to the earlobe and surrounding cheek skin.

The operation
The object of a parotidectomy operation is to remove the lump with a sufficient margin of normal gland to ensure its complete removal, without damage to the facial nerve. In order to maximise the safety of the procedure an adequate skin incision (cut) is necessary (see figure 2). A small amount of hair will need to be shaved off above and behind the ear.
During the operation, the main trunk of the facial nerve is exposed and the gland is carefully peeled away from the nerve, taking the lump with it. If the lump is on top of the facial nerve, the deeper half of the gland is usually left behind but if the lump is in the deeper half, more extensive surgery is needed in order to remove the whole gland. Almost always the great auricular nerve has to be divided in order to remove the lump.

Once the lump is removed, one or two suction drains are placed in position and the skin is closed with fine stitches. The drains help to prevent fluid collecting under the skin and can be removed painlessly after about 48 hours.

The scar usually heals well and is not very noticeable although the lower half of the scar will always be visible.

**How long will it take?**
You will probably be asked to come into hospital the day before your operation and you will need to be in hospital for about four days afterwards.

**What happens after surgery?**
The stitches will be removed about five days after your operation. You will be given an aftercare leaflet when you go home.

It would be wise to allow three weeks off work as you will feel tired for some time after a major operation.
What are the risks and complications?
In all surgical procedures there are possible complications. The degree of success depends on the specific problem, the age, health and co-operation of the patient. These factors differ in every case and can limit the surgeon and affect the surgical result.

Possible complications and risks include:

**Dry mouth**
This is usually not a problem. The loss of one parotid gland is usually well compensated by the remaining saliva glands.

**Numbness**
You will notice numbness of the earlobe and surrounding skin. This is caused by division of the great auricular nerve. Although much of the numbness will recover over the next few months, the earlobe will be permanently numb.

**Facial weakness**
During surgery the facial nerve branches have to be handled in order to protect them. If the nerve is stretched, it may lose function for a while and slight facial weakness is common after the operation. In most cases this is temporary and will recover steadily over the next few weeks. Occasionally, a branch of the nerve must be divided in order to remove the lump safely. This may not cause noticeable facial weakness but, particularly if one of the lower branches has to be divided, some weakness may result.

Division of the main trunk of the nerve causes total paralysis on one side of the face. This is not usually necessary and in those cases where it is necessary, your surgeon will usually have anticipated the need and discussed it with you before surgery. However, sometimes unexpected findings are made during the operation and the surgeon may have to make an ‘on the spot’ decision to divide the nerve without discussing it with you in advance.

**Haematoma (blood clot)**
Occasionally a blood clot will form under the skin. The majority of these go away without treatment. Sometimes a further minor operation is required to remove the blood clot.
Salivary fistula
The remaining gland substance will continue to secrete saliva and occasionally this may collect under the skin. It may leak from the wound and last for several weeks. Almost always it will stop on its own although you may require medication to dry the salivary glands and encourage healing.

Frey’s syndrome
After about six months you may notice the skin over the area becoming a little red and sweating while you are eating. The condition is quite common but it is usually only mild and does not inconvenience most people.

Follow up
Over 80 per cent of parotid lumps are benign and no further treatment will be necessary although annual follow-up for at least five years is recommended. Occasionally, radiotherapy or other treatments are required after the surgery and your surgeon will discuss this with you.

In this leaflet we have tried to explain the nature of your problems, the treatment required and any possible difficulties that may arise after your operation. If you have any further queries, please contact your consultant’s secretary for advice.
If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

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