

# **Apical bone cyst**

# Oral and Maxillofacial Department

**Patient Information Leaflet** 

# **Apical bone cysts**

Sometimes a dead tooth will develop a cyst on the tip of its root. This may need to be removed; a procedure that is performed either by your regular dentist or an oral and maxillofacial surgeon.

### How does a cyst develop?

First we must consider the normal anatomy of a tooth. The bulk of the tooth is composed of a bone-like substance called **dentine** which is capped with an even harder material – **enamel.** 

In the centre of the tooth is a fine ribbon of soft tissue containing blood vessels and nerves, known as the **pulp** (see figure 1). This is often called 'the nerve' as it is extremely sensitive to injury. If the pulp is injured, it will often die and the inflammation from this will spread outside the tooth into the surrounding bone. This gives rise to a sac attached to the root tip – this is a **bone cyst**.

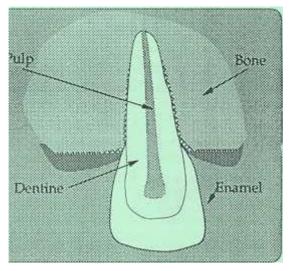


Figure 1 shows the normal anatomy of a tooth

# How are they treated?

#### **Root treatment**

In most cases a dead tooth can be treated by your dentist with a **root filling**. A small hole is drilled into the root canal and the canal is filled with an inert material.

Sometimes normal root treatment is not possible or is unsuccessful, and at this stage you may be referred to a maxillofacial surgeon for alternative treatment.

Removal of a bone cyst is a common procedure.

# What happens when I am referred for treatment?

#### Medical and dental history

To ensure that you receive the best treatment possible, your surgeon will first take your medical and dental history. You will be asked about medical problems that could interfere with surgery and anaesthesia.

#### Examination

Your surgeon will inspect your mouth and jaws to check for swelling, tenderness or other abnormalities. You may also have a brief physical evaluation to assess your fitness for surgery and anaesthesia.

#### X-rays

You will have X-rays of the affected tooth to help diagnose your problem and determine the best treatment.

#### X-ray precautions:

X-rays use a small amount of radiation which may add slightly to the normal risk of cancer.

# Female patients – you must tell us if you are, or might be, pregnant. If you are not sure, a pregnancy test will be offered.

#### **Choosing surgery**

After analysing all the findings, your surgeon will discuss the diagnosis with you and provide information about the surgical treatment of the bone cyst. They will also discuss any possible alternatives to surgery. 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.

### What happens during surgery?

Small bone cysts on front teeth can usually be treated under local anaesthetic, as you would have for routine fillings. More difficult cases may require a general anaesthetic and, if so, you may need to spend a night in hospital after the operation. We may also ask you to come in the night before the operation in order that all necessary administrative tasks can be sorted out.

During the operation, the cyst is removed and the end of the tooth root is sealed (see figure 2).

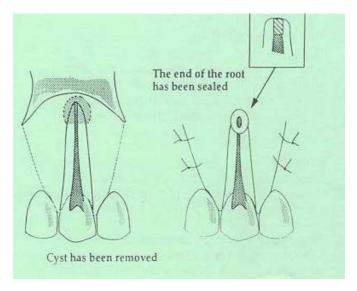


Figure 2 removal of apical bone cyst

# What happens after surgery?

Usually non-dissolving stitches are used. These will be removed about five to 10 days after your operation. You will be given an aftercare leaflet when you go home.

## What are the risks and complications?

After surgery, you may experience some temporary changes in the mouth. Here is what to expect:

#### Pain and swelling

This is usually not very severe. Discomfort is usually greatest the first night after surgery. Your surgeon will probably prescribe a pain medication for you and you may be given medication to reduce swelling.

#### Infection

This is not common. You may be prescribed antibiotics to reduce the possibility of infection.

#### **Tiredness**

It is very likely you will feel tired after surgery, particularly if you have a general anaesthetic. You may need to allow two to three days off work and you should avoid strenuous exercise. You should not drive a vehicle or handle machinery for 24 hours after a general anaesthetic or intravenous sedation (sedation given through a drip into your vein).

#### Numbness

The root tips of the lower back teeth are close to the nerve that supplies sensation to the lower teeth, lips and chin. If surgery is required to one of these teeth, the nerve can become injured, causing numbness and tingling. In most cases if this happens, the nerve repairs and regenerates in a short time. In a few cases, the numbness can be permanent.

### How successful is the surgery?

In all surgical procedures there are possible complications. The degree of success depends on the specific problem, the age and health of the patient. These factors differ in every case and can limit the surgeon and affect the surgical result. It is also important for the patient to follow the aftercare instructions that they are given.

Usually this is a very successful operation. In a small number of cases, the tooth remains slightly tender when using firm biting pressure. In about 10 per cent (one in 10) cases, the operation is unsuccessful and infection persists. It may be possible to overcome this by a repeat operation but sometimes the tooth must be removed and an alternative restoration becomes necessary.

# If you wish to discuss any aspects of your treatment further, please do not hesitate to ask.

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Oral and Maxillofacial Surgery Department Russells Hall Hospital Dudley West Midlands DY1 2HQ Telephone: 01384 244166 (9am to 5pm, Monday to Friday)

This leaflet can be downloaded or printed from: http://dgft.nhs.uk/services-and-wards/head-and-neck/

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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