

Apicectomy

Department of Maxillofacial Surgery

Introduction

Infection can persist at the tip of the root on one or more teeth. Previously these teeth may have had an abscess and have been root-treated. This persistent infection doesn't always cause any symptoms. Sometimes, you can have acute pain, but more often, just some discomfort and occasional episodes of swelling, a gumboil or a bad taste. A course of antibiotics may have been prescribed to try to control the infection, but antibiotics are not a permanent cure.

Why do I need treatment?

If left untreated the infection will develop into a chronic abscess or cyst. As well as causing pain this can lead to loss of bone surrounding the root. As a result the tooth will become loose.

The surgical treatment of infections at the tip of the root is called an apicectomy. Apicectomy is a treatment of last resort and in most cases it is better if your dentist tries to re-root treat the tooth or refer you to an endodontist (a specialist in carrying out root fillings). Sometimes, it is impossible to improve on the previous root filling, or they may be a metal post inserted into the tooth, which cannot be removed without breaking the root. If this is the case you will be referred for surgery.

What does treatment involve?

This involves cleaning out the infection from the bone, removing a small portion of the tip of the root of the tooth and then sealing the root end with a small filling.

It is necessary to make a cut in the gum over the root of the tooth or around the gum margin of several teeth. The gum is then lifted from bone. The area of infection is accessed by removing a small amount of bone over it with a drill. Any infected tissue is thoroughly cleaned away from the tip of the root before removing some of the root tip. The root end is then sealed with a small filling. The gum is then stitched back into place with dissolvable stitches that take around two weeks to disappear. Alternatively, your dentist or surgeon may choose to remove them earlier. The whole procedure may take up to an hour to complete.

What type of anaesthetic is used?

Usually an apicectomy is carried out under a local anaesthetic, i.e. an injection into the gum that numbs the area. This anaesthetic will prevent you feeling any pain during the procedure. If you are particularly anxious your surgeon may recommend you have some type of sedation.

If the area of infection around the root is very large, or there is a large cyst around the root, or several teeth need operating on; a general anaesthetic may be necessary.

What can I expect after the operation?

When the local anaesthetic wears off a few hours after surgery there will be some discomfort. Your surgeon will discuss painkillers with you. Antibiotics are not usually needed. The discomfort should ease after a few days but may take a couple of weeks to completely resolve.

You may require a day or two off work during which time you should avoid strenuous exercise.

Some swelling can occur both inside and outside the mouth after surgery. This is usually most noticeable for about two days.

It is important to keep the site of surgery as clean as possible for the first few weeks after surgery. If it is difficult to use a toothbrush the area can be kept free of food debris by gently rinsing with a salt water mouth wash (dissolve a teaspoon of kitchen salt in a cup of warm water). Start on the day after surgery. Do it as often as you can, but especially after eating.

What are the possible problems?

It is unusual for the area to bleed after surgery but should this happen it can usually be stopped by applying pressure over the area for at least 10 minutes with a clean handkerchief or sterile swab. If the bleeding does not stop please contact your surgeon. You should have been provided with emergency contact details in writing.

Lifting the gum to uncover the root of the tooth can occasionally lead to a numb feeling in the gum. This usually disappears after a few months. Because the gum is cut it can occasionally shrink back a few months after surgery as healing progresses. This is not normally a problem but if the tooth has been crowned, the edge of the crown may become exposed and be unsightly, necessitating replacing the crown.

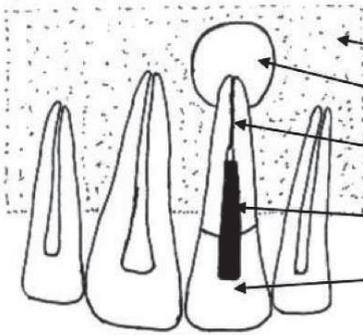
An apicectomy can never be guaranteed to be a 100% successful procedure. Even if all the infection is successfully removed it can

sometimes return months or even years later. If this happens it might be necessary to have the operation repeated, but sometimes the tooth is better removed. On front teeth that have been root treated, often the only way of making the tooth strong enough is by fitting a crown and to achieve this a metal post is screwed or cemented into the root. A common cause of problems with root treated teeth referred for apicectomy is a crack or fracture of the root, which is found out only at operation. Should this be the case, there is no practical way to repair the tooth and your surgeon or dentist will have to arrange for the tooth to be extracted and be replaced by a denture, bridge or implant.

Which teeth can have an apicectomy?

Theoretically, any tooth can have an apicectomy performed on it. However, realistically it is only routinely considered on the upper front five teeth (Incisor to premolar), the outermost and most forward of the roots of the upper molar and the lower front three teeth (incisor to canine). Operating on any other teeth runs the risk of permanently damaging sensory nerves that give sensation to lips, cheeks and gum ; or having to reduce the length of the root so much that the tooth left is too mobile to be comfortable for eating with.

Carrying out apicectomies on other upper molar teeth roots would mean having to open up the maxillary sinus (the air-filled space inside the cheek bone, either side of the nose and above the teeth roots). This is rarely practical or justified.



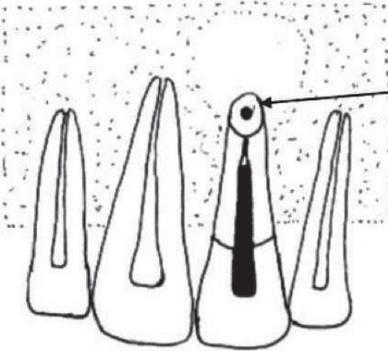
Bone which supports the teeth

Area of bone destruction caused by infection

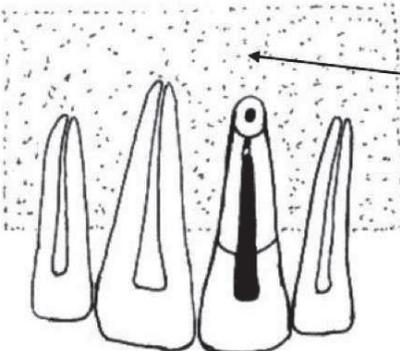
Root filling within the tooth

Metal post supporting crown of the tooth

Crown



Operation removes tip of the root and places a filling in the end of the root



At about 6 months bone has filled in around the root

Who do I contact if I have concerns following my procedure?

If you are worried and would like further advice, please do not hesitate to contact us. A doctor is available to deal with your concerns 24 hours a day.

During normal working hours, Monday to Friday 8 am until 5 pm please telephone the Maxillofacial clinic where your procedure was carried out:

Royal Sussex County Hospital, Brighton – 01273 696955 Ext. 4067
Princess Royal Hospital, Haywards Heath – 01444 441881 Ext. 8308

For advice during evenings, weekends and on public holidays, our partner organisation, Queen Victoria Hospital, East Grinstead has a doctor available to assist with any concerns.

Queen Victoria Hospital - 01342 414000 Ext. 6635

Evening hours – Monday to Friday 5 pm until 8 am

Weekend hours – Friday, 5 pm to Monday, 8 am

Public holidays – 24 hours cover.

Please ensure you have your patient reference number to hand when you contact us.

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Ref number: 1042

Publication Date: February 2020 Review Date: February 2023

