

Patient information from BMJ

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Dental abscess: what is it?

A dental abscess is an infected pocket of pus that forms at the root of a tooth or in the surrounding tissue or bone. It can be very painful but most people recover quickly with treatment. But if an abscess is not treated early the infection can spread and this can be dangerous.

For information on treatments for a dental abscess, see our leaflet *Dental abscess: what treatments work?*

What is a dental abscess?

If you have a dental abscess you have an infection in a tooth or in the nearby tissues or bone. This infection creates a pocket of pus (an abscess). Pus is a thick, yellowish fluid that the body makes to help fight an infection.

There are three main types of dental abscess and they happen for different reasons.

- **An abscess at the root of a tooth.** This is the most common type. It happens when the soft tissue inside the tooth (the pulp) becomes infected with bacteria and dies. This leads to an abscess forming at the end of the tooth's root.

Bacteria often enter the tooth because of advanced tooth decay that reaches into the center of the tooth. Bacteria can also enter a tooth if it is injured (for example, cracked or broken). You might hear this type of abscess called a periapical abscess.

- **An abscess alongside a tooth.** This type of abscess happens when the tissues around a tooth (the gums) are infected with bacteria.

These abscesses are usually caused by advanced gum disease, where bacteria have traveled well below the surface of the gums and are damaging the bone and tissues around the tooth. This is called a periodontal abscess.

- **An abscess in gum tissue partly covering a tooth.** Sometimes a tooth doesn't fully break through the gums when it's growing in. This is most likely to happen with wisdom teeth, which are the last adult teeth to grow in.

When a tooth is partly covered, keeping it clean can be difficult and bacteria can spread under the gums, causing an abscess. This is called a pericoronal abscess.

What are the symptoms?

The main symptom of a dental abscess is intense continuing pain. The pain is sometimes described as throbbing, gnawing, sharp, or shooting.

Other common symptoms of an abscess include:

- redness and swelling (inflammation). This starts at the site of the abscess. It might look like you have a pimple on your gums. As the infection gets worse the swelling might spread, affecting more of your mouth. People with an abscess alongside their tooth often get swelling before they get pain.
- tooth sensitivity to hot or cold foods and drinks
- a bad taste in your mouth and bad breath
- a high fever.

Signs of a more severe infection include:

- a very high fever
- difficulty opening your mouth
- widespread swelling that affects your face
- difficulty swallowing
- difficulty breathing.

If you have signs of a severe infection you should get treatment right away. Breathing difficulties can be especially dangerous and need emergency treatment in the hospital.

Other people who might need hospital treatment include the very young or old, or those who have other health problems that might make an abscess more dangerous or hard to treat, such as lung disease, heart failure, HIV, or cancer.

Even if your symptoms aren't severe it's important to see your dentist without delay. Treatment can relieve your symptoms and stop the infection getting worse.

To diagnose an abscess your dentist will ask you questions about your symptoms and examine your teeth and gums. You will also have a mouth X-ray. This can show where the infection is, how far it has spread, and whether there is damage to your tooth or bone.

Your dentist might also do a blood test to check for signs of infection.

What will happen to me?

With treatment most people recover quickly from a dental abscess. But it's important to get an abscess treated as soon as possible. If you wait and the infection spreads this can lead to more serious problems that might need treatment in the hospital.

If your tooth had to be removed you might want to have it replaced with an artificial tooth both for practical and cosmetic reasons. For example, a missing tooth can affect your chewing and

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speaking as well as your appearance. There are three main options for replacing a tooth. You could have:

- a dental implant (a new tooth is attached to a metal post implanted into your jaw bone)
- a bridge (a new tooth is attached to one or both teeth at either side of the missing tooth)
- a partial denture (a new tooth is attached to a frame that sits in your mouth and can be removed).

If your tooth was damaged but not removed your dentist might recommend you get a crown. This means attaching a partial tooth to what's left of the old tooth.

Most dental abscesses happen because of poor dental care. To prevent future problems it's important to:

- brush your teeth at least twice a day with a fluoride toothpaste
- try to limit sugary foods and drinks (such as flavored carbonated drinks)
- have regular dental checkups and cleanings
- make sure any areas of decay (cavities) are treated quickly so the decay doesn't spread.

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