

## How is root decay diagnosed?

Many people who have root decay do not know they have it. Root decay is usually first found by a dental practitioner during a dental visit. Dental practitioners may feel the softened root when using dental instruments during a dental examination. They may also take an x-ray to detect root decay between teeth.

## How is root decay treated?

Early decay can be repaired with the use of fluoride to rebuild and toughen the root structure. Your dental practitioner will recommend brushing with a fluoride toothpaste and may also recommend the use of high fluoride products including professionally-applied topical fluorides such as gels, varnish and a high fluoride toothpaste that contains a higher fluoride content than a standard fluoride toothpaste.

With the application of fluoride early root decay can recover and the root may appear dark. However it will become strong and not require a filling, except for cosmetic reasons.

## What can you do?

Your teeth will benefit most when:

- You understand the risk and preventive factors for root decay
- Carry out regular home care with routine tooth brushing with fluoridated toothpaste
- Visit your dental practitioner regularly
- Reduce sugary foods and drinks in your diet
- Root decay is detected early

For older adults with functional limitations which could disrupt normal daily living activities, including normal oral hygiene and use of dental services, the performance of daily oral hygiene behaviours should be supported by their carer.

Acknowledgement:

Colgate Oral Care

## FOR FURTHER ENQUIRIES

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# ROOT DECAY

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**Tooth decay affects people of all ages. Root decay is tooth decay on the root surface of teeth and it occurs more commonly as people get older. In many countries, people are living longer and keeping their natural teeth for longer. As a result, root decay has become an important dental health problem, particularly among older adults retaining their natural teeth. As people age, their gums may recede and root surfaces of teeth become exposed, making them more prone to root decay.**

### What causes gums to recede?

When your gums pull away from your teeth, it is called gum recession. The most common cause of receding gums is gum disease caused by poor oral hygiene. However, people with good oral hygiene can also experience gum recession. Physical wear of the gums by brushing teeth too hard or using hard bristled toothbrushes is a further, common cause of receding gums. Older adults who have retained their own natural teeth have had more years of brushing, which can potentially increase their risk of gum recession.

### What is root decay and how does it develop?

Root decay refers to tooth decay on the root of the tooth. Root decay occurs where the gums have receded (shrunk) away from the tooth to expose the root. The root is usually protected by gum tissue, but if the gum tissue recedes, the root will be vulnerable. The root surface does not have a hard protective enamel covering like the crown (top) of the tooth. Unprotected root surfaces are very vulnerable to decay. Root decay can spread inside the tooth more quickly than decay on a tooth crown.

### What causes root decay?

Tooth decay is caused by plaque, a sticky layer of bacteria, which builds up inside the mouth. Bacteria acts on sugars in the diet producing acid that can cause decay. Plaque has a tendency to build up along the gum line, and if it is not removed it can cause root decay.

Many factors can contribute to gum recession, and eventually root decay, including:

- Poor oral hygiene – not brushing teeth at least twice daily with a fluoride toothpaste and flossing teeth at least once a day
- Brushing teeth too hard during the lifetime or using a hard bristled toothbrush
- Age – damage to gums accumulates from years of over-brushing, and becomes more obvious as people age

- Gum disease
- Crooked teeth – crooked teeth can be more difficult to clean thoroughly and can increase the likelihood of gum disease
- Smoking
- Medication that causes dry mouth – older adults usually have several medical conditions that require the use of medications. These medications can reduce saliva flow causing them to have dry mouth.
- Trauma to gums or teeth

With gum recession, people may notice that their teeth look longer. When the gum recedes, the root comes into contact with bacteria in the mouth and root decay can form. As happens with teeth at all ages, every time we eat or drink, our teeth are under attack from acid produced by plaque bacteria acting on sugars in the diet.

### What are the signs of root decay?

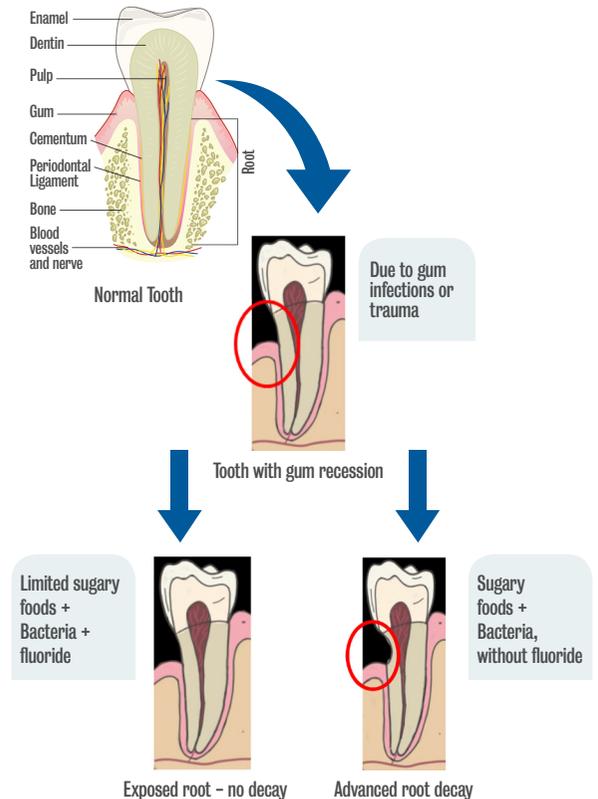
Many people who have root decay may not realise they have it. This is because it occurs at or below the gum line, and may develop with or without pain. Root decay is located on the exposed root and is prone to discoloration as the root can easily absorb stains. Root decay appears as softened /rough lesions, yellowish to brownish in colour.



**Figure 1: Gum recession exposing the root and causing the tooth to look longer; Presence of advanced root decay**

### What are the risk indicators for root decay?

- Smoking
- Not using a fluoride toothpaste
- Irregular tooth brushing
- Dry mouth
- Wearing partial dentures
- Visiting a dentist only for a problem
- Exposure of root surfaces due to gum disease



**Figure 2: Stages of root decay**

### How can you prevent root decay?

As root decay is caused by bacteria acting on sugars in the diet, it is important that you keep your teeth clean. Things that can help prevent root decay are:

- Fluoride – drinking fluoridated water and fluoride applications
- Regular tooth brushing with fluoridated toothpaste and flossing
- Correct tooth brushing techniques
- A healthy diet with reduced amounts and frequency of sugar consumed – certain foods and snacks which are high in sugars or simple carbohydrates can cause bacteria in your mouth to form acid that can cause decay.
- Support from your carer (if you have one) and using an electric toothbrush, especially if you have physical limitations that make it more difficult for you to clean your teeth
- Regular dental visits