

# Tooth Basics

To better understand why endodontic treatment is performed, it helps to know a little about the anatomy of the tooth. Teeth may look simple but in fact are a complex system of specialised structures.

A tooth contains two major anatomical parts. The part you can see in your mouth is called the crown of the tooth. The part that is hidden from view is the root.

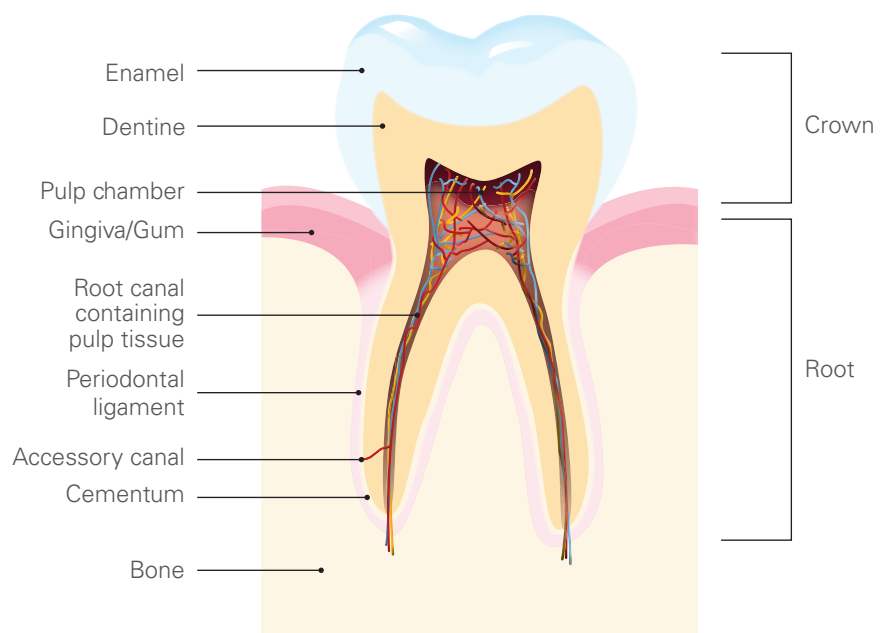
Below is a glossary of the basic terminology used when referring to endodontic treatments.

## Enamel

The outer layer of the crown is the enamel (the hard, shiny white covering of the tooth) that is visible in your mouth. Enamel is formed before the tooth erupts into your mouth and is the hardest tissue in your body!

## Dentine

Most of the tooth is made up of dentine, which is the yellow tooth structure beneath the enamel. Although dentine is hard, it is quite porous with a network of tubules. The dentine is a living structure that needs the protection of enamel, a filling or an artificial crown. Without this protection, bacteria in the saliva can enter the pulp via the dentine tubules and cause infection.



**Did you know?** As the pulp contains nerves, if it is exposed it is able to sense stimuli such as cold, hot and sweet. Pain in response to heat or cold that often lingers is a common sign of pulpal inflammation. Pain on chewing is a common symptom when the pulp is inflamed or the root canal system has been infected. The pain from biting pressure or to tap on a tooth is often caused by inflammation of the tissues surrounding the tooth root (bone and the periodontal ligament surrounding each tooth root).

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Did you know? Your anterior (front) teeth (also referred to as incisors and canines) contain one root and usually a single canal while premolar teeth (the teeth behind your canines) may have 2 to 3 roots (with 1-2 or more canals in each root). The molar teeth (the back teeth) have two to three roots and can have between 3 to 5 canals (or more). The internal anatomy of the root canal system can be extremely complicated and in molar teeth, canals can often be joined together by webs and fins.

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## Pulp

Lying within the dentine is the dental pulp which is the clinical name given to the soft tissue inside the tooth (often called the “nerve”). The pulp consists of blood vessels, soft tissue and nerve fibres. The inflamed or infected pulp is removed during root canal treatment.

Within the crown and root(s) is the root canal system where the pulp resides. The pulp is the soft innermost core of the tooth that contains blood vessels, immune cells, nerve fibres and connective tissue.

It is a dynamic structure, which produces hard tooth tissue during tooth development and continues to do so over a person's lifetime. The pulp nourishes the tooth during its growth and development. When the tooth is mature, the pulp continues to provide nutritional and sensory functions for the tooth.

## The Root

The tooth is anchored in the bone by the roots. Each root can have one, two or more root canals. The roots are hidden within the bone, which is covered by the gum.

A healthy tooth stimulates and keeps the bone tissue healthy. If a tooth is removed, this can cause a loss of the bone that was holding the tooth in place. This can cause complications when replacing lost teeth with prosthetic appliances such as bridges and implants.

## The Periodontal Ligament

This tissue surrounds the tooth root and holds the roots in the socket of the jawbone. It acts like the suspension in the car and cushions the tooth from the pressures of chewing and biting.

## Gingiva / Gum

The gingival tissues (gums) cover the bone surrounding the teeth. Together with the periodontal ligament and bone that supports the tooth, the health of these tissues is critical for holding the tooth in place and allowing it to function properly.



Level 3, 25 King William Street,  
Adelaide, South Australia 5000  
P: (08) 8212 5339 F: (08) 8231 6554  
[www.endodonticsolutions.com.au](http://www.endodonticsolutions.com.au)