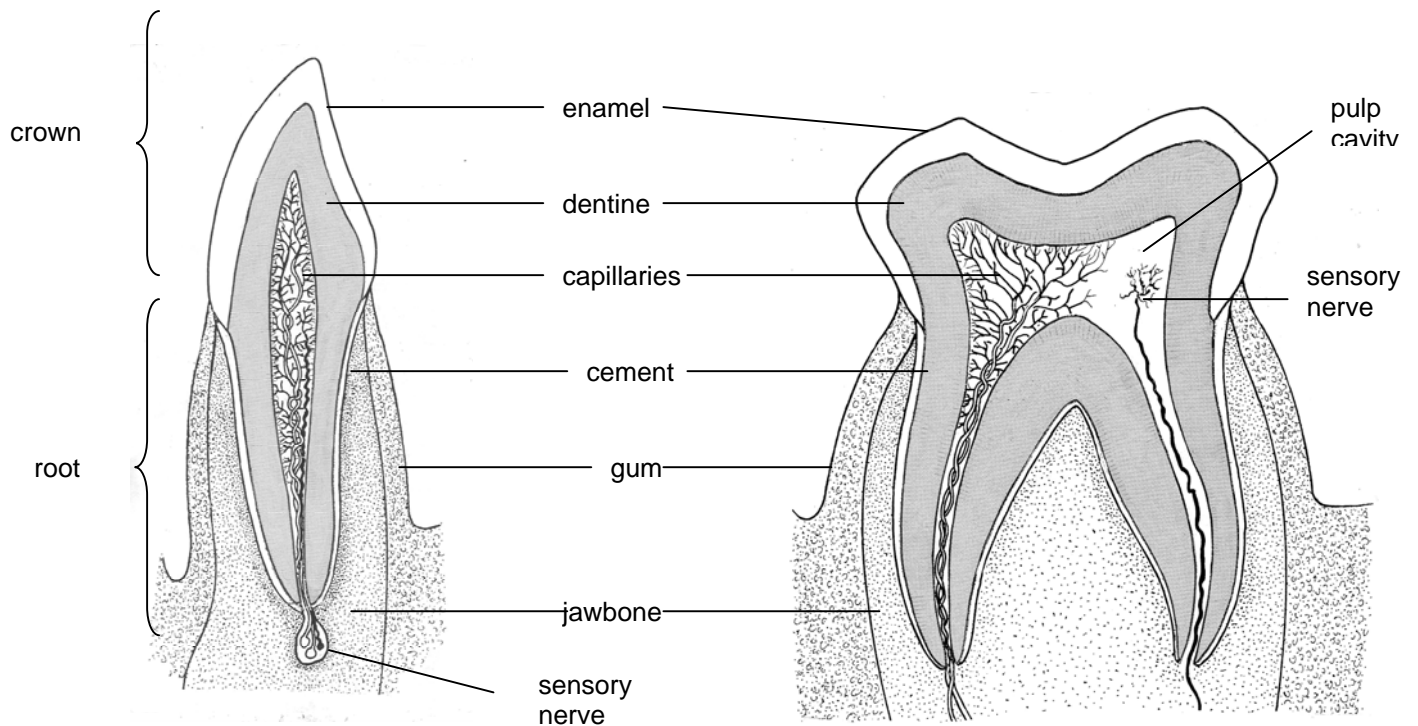


Tooth structure



Vertical section through incisor

Vertical section through molar

Enamel is the hardest substance made by animals. It is deposited on the outside of the crown of the tooth by cells in the gum before the tooth reaches the surface. The enamel is a non-living substance containing calcium salts; it forms an efficient, hard, biting surface.

Dentine is more like bone in its structure. It is hard but not so brittle as enamel and running through it are strands of cytoplasm from cells in the pulp. These cells are able to add more dentine to the inside of the tooth.

Pulp. In the centre of the tooth is soft connective tissue called pulp. From this the living strands of cytoplasm in the dentine derive their food and oxygen. The pulp contains sensory nerve-endings and blood capillaries. Oxygen and food brought by the blood enable the tooth to live and grow. The nerve-endings are particularly sensitive to heat and cold but produce only the sensation of pain.

The root is not set rigidly in the jawbone, but is held by tough fibres so that it moves slightly in its socket as a result of chewing and biting movements.

Cement is a thin layer of bone-like material covering the dentine at the root of the tooth. The fibres which hold the tooth in the jaw, are embedded in the cement at one end and in the jawbone at the other.