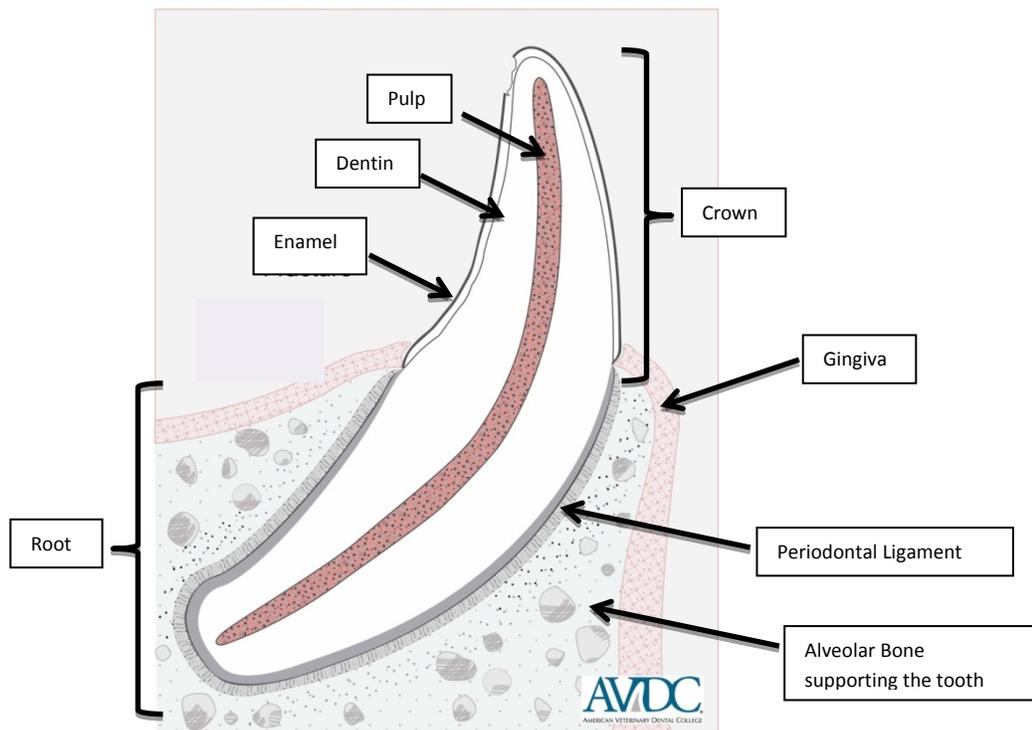


Tooth Anatomy

To understand some of the concepts and terms that we use in discussing dental conditions, it is helpful to have a picture of what these terms represent. This picture is from the American Veterinary Dental College.



Crown: The portion of the tooth projecting from the gums. It is covered by a layer of *enamel*, though *dentin* makes up the bulk of the tooth structure. The crown is the working part of the tooth. In dogs and cats, most teeth are conical or pyramidal in shape for cutting and shearing action.

Gingiva: The gum tissue surrounds the crown of the tooth and protects the root and bone which are *subgingival* (below the gum line). The gingiva is the first line of defense against periodontal disease. The space where the gingiva meets the crown is where *periodontal pockets* develop. Measurements are taken here with a *periodontal probe* to assess the stage of periodontal disease. When periodontal disease progresses it can involve the **Alveolar Bone**, leading to bone loss and root exposure.

Root Canal: The root canal contains the pulp. This living tissue is protected by the crown and contains blood vessels, nerves and specialized cells that produce *dentin*. Dentin is produced throughout the life of the tooth, which causes the pulp canal to narrow as pets age. Damage to the pulp causes *endodontic disease* which is painful, and can lead to infection and loss of the tooth.

Periodontal Ligament: This tissue is what connects the tooth root to the bone to keep it anchored to its socket. It acts as a “shock absorber” to cushion the pressure exerted on the tooth during chewing. It also contains cells that can help to repair the root surface or bone. Preserving the periodontal ligament is critical to preventing tooth loss.

Root: The tooth root in dogs and cats is very long and large compared to humans. It anchors the tooth in bone to provide stability. The root is mostly composed of *dentin* and covered with *cementum* which attaches to the periodontal ligament.

Dentin: Dentin is the hard substance that makes up the bulk of the tooth structure. On the crown it is covered by *enamel*. *Dentin* is produced by the tissue that lines the pulp canal, and continues as long as the pulp is living. Dentin has microscopic pores in it which could allow bacteria entrance into the tooth and pulp if the dentin is damaged.

Enamel: Enamel is the very hard smooth material that covers the crown of the tooth. It is only produced when the tooth is forming, and production ceases before the tooth erupts, therefore any enamel damage is permanent.

Incisors are the 6 teeth at the front of the upper or lower jaw that sit between the canine teeth. These are used in grooming mostly.

Canines are the big “fang” teeth that cats and dogs bite prey and hold on to objects with.

Premolars and Molars are the teeth that line the sides of the upper and lower jaws. The biggest premolar on the upper jaw (the 4th premolar) and the biggest molar on the lower jaw (the 1st molar) are the teeth most important for chewing. Most premolar and molar teeth have at least 2, if not 3, roots.

