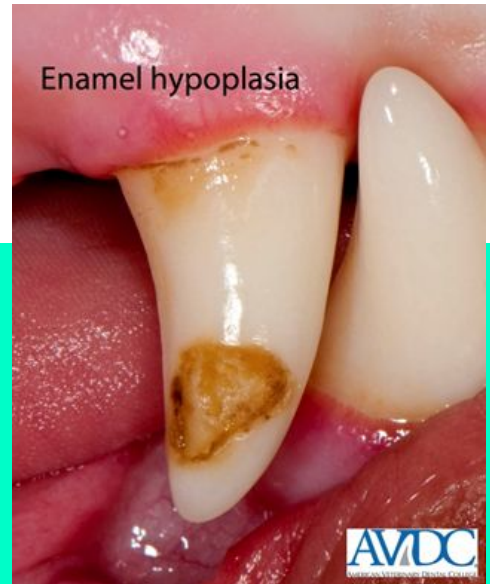


# Client Education Series: Enamel Hypoplasia

Animal Dental Clinic of Pittsburgh, LLC  
Krista Mendoza, DVM, DAVDC



# Review of tooth anatomy:enamel

Enamel is the protective, outermost layer of the tooth

In dogs and cats, the enamel is very thin

Enamel is the hardest mineral substance in the body, even stronger than bone

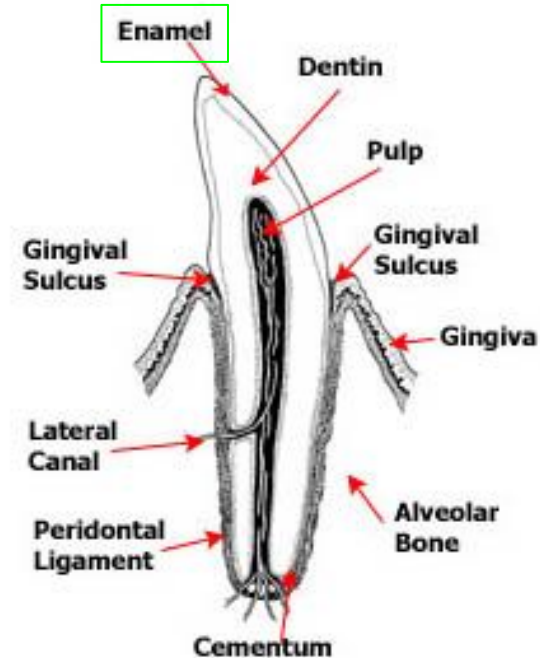
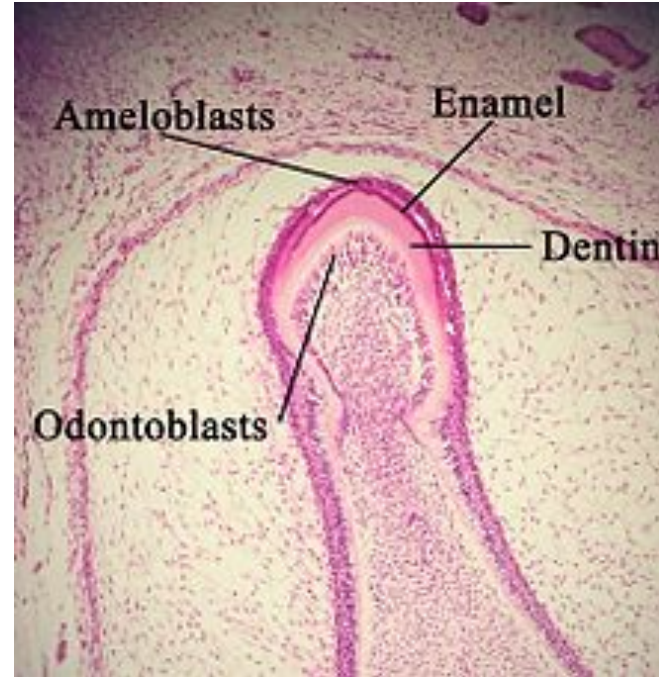


Diagram courtesy of Doctors Foster and Smith

# What is enamel hypoplasia?

Enamel hypoplasia refers to a condition in which the outer layer of the tooth (enamel) fails to develop properly.

Enamel hypoplasia happens when the cells that make enamel (ameloblasts) are disrupted during enamel production resulting in an abnormal enamel matrix



# What causes enamel hypoplasia?



*Figure 2. Dental pictures of (A) left maxillary canine (204) of dog with localized hypoplasia, and (B) left maxilla in dog with generalized enamel hypocalcification.*

Anything that disrupts the ameloblasts during enamel production before the tooth erupts can cause enamel hypoplasia.

If the lesions are throughout the mouth, causes could be fever, viral infection

If the lesions are more focal, local infection from deciduous tooth or other, damage during extraction of deciduous teeth, or other trauma

# What does enamel hypoplasia look like?

Enamel hypoplasia can look like a chipped tooth/teeth

The enamel is missing, so the surface is rough and not just stained

Because the bright white enamel is missing and the dentin is exposed, teeth are usually yellow or brown



# Treatment of enamel hypoplasia:

Teeth with enamel hypoplasia can be cleaned, prepared, and bonded to help smooth the enamel surfaces and decrease any possible sensitivity.

Sometimes crowns can be placed to protect the teeth, but this can be involved and expensive.

Home care is very important in patients with enamel hypoplasia to keep the teeth clean since the surfaces are irregular and more prone to plaque and tartar accumulation.

