



# The Importance of Enamel in Dental Health

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## **DESCRIPTION**

The crown of the tooth, which is the visible portion of the tooth above the gum line, is covered in enamel, a hard, protective outer covering of the tooth. Enamel is made up of tightly packed hydroxyapatite crystals, which are calcium and phosphate-based minerals that give it its unique hardness and durability.

It is the hardest substance in the human body, even stronger than bone. In this essay, we will explore the structure, function, and care of enamel.

## Structure of enamel

Enamel is composed of several layers that work together to protect the tooth from damage and decay. The outermost layer of enamel is the translucent, colourless layer that we see when we look at our teeth. Beneath this layer is the dentin, a softer, yellowish layer that makes up most of the tooth's structure. At the heart of the tooth is the pulp, which houses the nerves and blood arteries that supply the tooth.

The enamel layer is made up of hydroxyapatite crystals that are tightly packed together. These crystals are arranged in a way that makes the enamel layer incredibly hard and durable. In fact, enamel is so strong that it can withstand the pressure of biting and chewing without breaking or cracking.

#### **Enamel function**

The primary function of enamel is to protect the tooth from damage and decay. It acts as a shield that covers the sensitive dentin layer and the pulp, preventing bacteria, acids, and other harmful substances from penetrating the tooth and causing cavities or infections. Enamel also plays a crucial role in maintaining the tooth's shape and structure. Without enamel, the tooth would be much weaker and more vulnerable to damage. It would also be more susceptible to wear and tear, as well as staining and discoloration.

In addition to its protective function, enamel also contributes to the appearance of the tooth. Enamel is translucent, which means that it allows light to pass through it. This gives the tooth a bright, white appearance and makes it look healthy and attractive.

Enamel is a vital part of the tooth, and it is essential to take care of it to ensure that it remains strong and healthy. There are several things that you can do to care for your enamel and protect it from damage and decay. The first step in caring for your enamel is to practice good oral hygiene. This entails using fluoride toothpaste to wash your teeth twice daily and flossing at least once a day. Fluoride is a mineral that helps to strengthen enamel and protect it from decay. It works by demineralizing the enamel, replacing lost minerals and repairing damage caused by acids and bacteria.

Another way to care for your enamel is to watch what you eat and drink. Foods and drinks that are high in sugar or acids can erode the enamel and weaken the tooth. Cavities, sensitivity, and other dental issues may develop from this. To protect your enamel, it is best to limit your intake of sugary and acidic foods and drinks. Instead, opt for foods that are high in calcium and other minerals that are beneficial for enamel health.

Regular dental check-ups are also important for maintaining healthy enamel. Your dentist can detect early signs of enamel damage and decay and recommend treatments to prevent further damage. They can also provide you with professional cleaning and polishing, which can remove plaque and surface stains that can dull the enamel and make the teeth appear yellow or discoloured. Enamel is a vital component of the tooth that plays a crucial role in protecting it from damage and decay. It is the hardest substance in the human body and is incredibly durable and strong. Caring for your enamel is essential to maintain good oral health and prevent dental problems such as cavities, sensitivity, and discoloration. By practicing good oral hygiene, watching what you eat and drink.

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