

Teeth are hard structures located in the mouth that are used to bite, cut, tear, and grind food so it can be swallowed and digested properly. Digestion is the process by which the body breaks food down into nutrients that can be absorbed and used for energy, growth, and repair. Teeth play the very first role in digestion because they mechanically break food into smaller pieces before it enters the stomach. Mechanical means using physical force rather than chemical reactions. By chewing food thoroughly, teeth increase the surface area of the food, which allows digestive enzymes in saliva and the stomach to break it down more efficiently.

Humans develop two sets of teeth during life. The first set is called primary teeth, commonly known as baby teeth or milk teeth. Primary teeth begin forming before birth but usually start appearing in the mouth around six months of age. Most children have all twenty primary teeth by the time they are about three years old. These teeth hold space in the jaw for the permanent teeth that will eventually replace them. The second set is called permanent teeth, which begin to emerge around age six and continue developing through the teenage years. Most adults have thirty-two permanent teeth, including wisdom teeth, which are the last molars that typically appear in the late teenage years or early adulthood.

Each tooth is designed for a specific function in the chewing process. The front teeth are called incisors. Incisors have flat, sharp edges and are used for cutting food, such as when biting into an apple. Next to the incisors are the canines, which are pointed teeth designed for tearing food. These teeth are sometimes referred to as cuspids because they have a single pointed cusp, or tip. Behind the canines are the premolars, also called bicuspid. Premolars have two pointed surfaces that help crush and grind food. At the back of the mouth are the molars, which are the largest teeth. Molars have broad, flat surfaces designed for grinding food into small pieces before swallowing.

A tooth is made of several layers, each with its own structure and function. The outermost layer of the crown—the visible part of the tooth—is called enamel. Enamel is the hardest substance in the human body. It is composed mainly of minerals, especially calcium phosphate, arranged in tightly packed crystals. This mineral structure allows enamel to withstand the pressure of chewing and biting. However, enamel cannot repair itself once it is damaged because it does not contain living cells.

Beneath the enamel lies dentin. Dentin is a dense, bone-like tissue that makes up most of the tooth's structure. It is slightly softer than enamel and contains microscopic tubes called dentinal tubules. These tubules connect to the nerve center of the tooth and can transmit sensations such as heat, cold, or pressure. When enamel wears away or becomes damaged, dentin becomes exposed, which can cause tooth sensitivity.

At the center of the tooth is the pulp. The pulp contains nerves, blood vessels, and connective tissue that keep the tooth alive and nourished. Blood vessels supply oxygen and nutrients, while nerves allow the tooth to sense temperature and pain. If bacteria

reach the pulp due to decay or injury, the pulp can become infected. In severe cases, a dentist may perform a root canal procedure to remove infected pulp and preserve the structure of the tooth.

The portion of the tooth above the gum line is called the crown, while the portion embedded in the jawbone is called the root. The root anchors the tooth in place and connects it to the surrounding bone. A thin layer called cementum covers the root. Cementum helps attach the tooth to the periodontal ligament, which is a group of strong connective fibers that hold the tooth firmly in the jawbone. The periodontal ligament acts like a shock absorber, allowing the tooth to withstand the pressure created during chewing.

The gums, also called gingiva, are soft tissues that surround and protect the base of the teeth. Healthy gums form a tight seal around each tooth, preventing bacteria from entering deeper tissues. If gums become inflamed due to bacterial buildup, a condition called gingivitis can occur. Gingivitis is an early stage of gum disease characterized by redness, swelling, and bleeding of the gums.

If gingivitis progresses without treatment, it can develop into periodontitis. Periodontitis is a more serious form of gum disease in which bacteria spread below the gum line and begin damaging the bone and connective tissues that support the teeth. Over time, this damage can cause teeth to loosen or fall out.

The most common dental problem affecting teeth is tooth decay, also known as dental caries or cavities. Tooth decay occurs when bacteria in the mouth break down sugars from food and produce acids. These acids gradually dissolve the minerals in tooth enamel, creating tiny holes that can expand over time. If decay continues unchecked, it can penetrate deeper layers of the tooth and eventually reach the pulp.

Saliva plays an important protective role for teeth. Saliva is the fluid produced by salivary glands in the mouth. It helps wash away food particles, neutralize harmful acids, and deliver minerals such as calcium and phosphate that help strengthen enamel. Saliva also contains enzymes and proteins that help control bacterial growth.

Good oral hygiene helps protect teeth from decay and disease. Oral hygiene refers to practices that maintain cleanliness and health of the mouth. Brushing teeth removes plaque, which is a sticky film of bacteria that forms on tooth surfaces. Plaque that is not removed can harden into tartar, also called calculus. Tartar cannot be removed by brushing alone and usually requires professional dental cleaning.

Fluoride is another important factor in protecting teeth. Fluoride is a naturally occurring mineral that strengthens enamel and makes it more resistant to acid attack. Many communities add fluoride to drinking water, and fluoride is commonly included in toothpaste and dental treatments.

Diet also influences dental health. Foods high in sugar or refined carbohydrates provide fuel for bacteria that produce acid. Frequent snacking on sugary foods increases the risk of cavities because it repeatedly exposes teeth to acid. On the other hand, foods rich in calcium and phosphorus help support strong teeth and bones.

Teeth also play roles beyond chewing. They contribute to speech by helping form certain sounds when the tongue interacts with the teeth and lips. Teeth also influence facial structure by supporting the lips and cheeks. When teeth are lost, facial muscles can sag slightly because the structural support provided by teeth is reduced.

Dentists are medical professionals who specialize in diagnosing and treating problems related to teeth and oral health. They perform procedures such as fillings to repair cavities, crowns to restore damaged teeth, and orthodontic treatments like braces to correct alignment. Orthodontics is the branch of dentistry that focuses on positioning teeth properly within the jaw.

Teeth are therefore not just simple tools for chewing. They are complex biological structures connected to nerves, blood supply, bone, and soft tissues. Their health affects digestion, speech, appearance, and overall well-being. Proper care through regular brushing, flossing, balanced nutrition, and professional dental checkups helps maintain strong teeth and healthy gums throughout life.