

When you think about your mouth, the first thing that probably comes to mind is your teeth. And sure, teeth are important. They help you chew food, thereby getting much-needed nutrition into your body. They even help you make social connections, since a smile can be a great conversation starter. But there's more to your mouth than just teeth. Besides serving as a pretty effective communication device and one of the methods by which we breathe, the essential functions of the mouth are biting, chewing, and swallowing. Here's a quick primer on the components of your mouth and what each one does to help keep you healthy.

Teeth

Okay, let's start with the biggest resident of your mouth. A healthy mouth contains 32 teeth, each of which consists of two main parts, the crown and the root. The crown is the part you see, and the part you use to bite and chew. The root is the part you don't see, because it's hidden below your gums. Teeth are made up of three layers that help protect the teeth against damage and cavities. The top layer is called enamel, and it covers part of or the entire crown. (Fun fact: Enamel is the hardest tissue in the body.) The middle layer is the dentin, which is similar in composition to bone. The biggest part of the tooth, the dentin extends almost the entire length of the tooth, being covered by enamel on the crown portion and by cementum, which is a thin layer of bonelike material that covers the root. The inner layer of the tooth is called pulp, and it consists of cells, blood vessels, and a nerve. The pulp resides in a canal (where do you think the procedure "root canal" got its name?) that extends almost the whole length of the tooth, and one of its jobs is to communicate with the body's nutritional and nervous systems. Below the tooth lies the root, which supports and fastens the tooth in the jawbone.

Gums

Also known as gingivae, gums have the vital task of surrounding the teeth and attaching them to the alveolar bone (the part of the jaw that surrounds the roots). Composed of dense fibrous tissue covered by oral mucosa, gums help hold your teeth in place, which is why it's important that you take care of them in the same way you do your teeth. Healthy gums should be pink and firm. Swollen, red, or bleed-

Your Mouth

It's What's Inside That Counts

ing gums could be a sign of gingivitis, an infection that, if left untreated, can lead to severe gum disease and potentially tooth loss.

Tongue

The tongue does a lot more than give some people the means to ruin many a family picture. That fleshy, movable, muscular organ attached to the floor of the mouth is the principal organ of taste, plays a big role in chewing and swallowing, and is a key factor in your ability to speak. The tongue is covered by a mucous membrane, and the upper surface is covered with papillae, tiny pores that are the site of taste buds, the receptor cells responsible for our sense of taste. There are four kinds of taste buds that are grouped together on certain areas of the tongue's surface, and each group is sensitive to sweet, salty, sour, or bitter flavors. A healthy tongue is pinkish-red in color; discoloration is usually an indication of a health problem.

Palate

The palate is made up of hard and soft tissues forming the roof of the mouth that separates the oral and nasal cavities. The palate consists of two portions: the hard palate in front and the soft palate behind. The hard palate, which is made of periosteum, a bony plate covered by mucous membrane, arches over to meet the gums in front and on either side. The soft palate is a movable fold of mucous membrane, and its sides blend with the pharynx (throat). Together, the soft and hard palates form a wall or division between the mouth and the pharynx. During swallowing, this wall is raised to close the entrance to the nasal passages. A small cone-shaped structure, the uvula, hangs from the lower border of the soft palate.

Glands

The mouth also contains three pairs of salivary glands—submaxillary, sublingual, and parotid—that secrete saliva, another important tool in



your arsenal of oral health helpers. Saliva moistens food, which aids in chewing, swallowing, and digestion, and also moistens the tissues of the mouth. Saliva protects your mouth from decay and disease in a few different ways: it washes food particles from your teeth and gums; it helps stop acids that eat away at teeth; it reduces or destroys disease-causing organisms; it replenishes minerals in your tooth enamel; and it helps heal wounds. The submaxillary glands are located around the mouth under the lower jaw, the sublingual glands are located beneath the tongue, and the parotid glands are found in front of each ear. The parotid gland secretes saliva that contains enzymes called amylases, one of which (ptyalin) aids in the digestion of carbohydrates. The buccal glands in the cheeks near the front of the mouth also secrete saliva. So the next time you feel embarrassed about inadvertently spitting while trying to pronounce a challenging word or drooling as you sleep, think about the important work that this oral cavity fluid is doing to help you have a healthy mouth. 

Editor's Note

This issue of *WORD OF MOUTH* features the debut of a new series of articles that aim to provide a "back to the basics," encyclopedic look at your oral health. When you see the "Sound Bites" icon, that means the article you're reading includes information—sound bites, if you will—about the basic stuff you need to know.



For more information on your oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.