

Teeth, their Development and Decay.

Graduating Thesis.

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The Teeth, Their Development and Decay.

Man in his most savage state, when his entire time was spent in roaming over the hills and through the valleys; did so that he might obtain something to eat. His entire end in this world was to supply his inner wants; and, in doing so, did he ever think of caring for those little organs, which make it possible for him to enjoy that food which his entire time was spent in capturing?

Not only then, but even today, how many people are there that never take one thought about their teeth, which seem to furnish the most pleasure to me in this world. But, as society is advancing, it is requiring that those who wish to be in her foremost ranks, must think of these most important organs. Yes, more than that, must see that they have their daily cleansing as well as the face and the hands. What is there that is prettier than to see a person with a full mouth of bright, shining, milky white teeth? And, what is there that looks more uncleanly and shows careless habits more than a person

with only a partial mouth of dirty, black, nasty looking things, that you can hardly call teeth.

Those bony, small, hard organs, implanted in the alveoli, along the margins of the jaw, were not put there to be used as long as possible, and allowed to decay without any care from their owner. They were put there for the purpose of masticating the food, preparatory to its entrance into the alimentary canal. But this is not all, for in some cases such as most of the teeth of the mammalian animals have to perform another very important duty, that of getting the food also. But we will not take up the teeth of such animals, as it is our purpose, to treat only of those of the human subject.

So every man is given two sets of teeth, one for use during childhood, while the jaw is in an imperfect condition, and the other to last during the remainder of life. The first set is known as the temporary or milk teeth, and the second as the permanent set. The temporary set being composed of twenty teeth, while the permanent set has thirty two, which are somewhat.

larger and stronger than the temporary set.

The permanent set has to last many years the longest, yet the teeth of both sets are practically the same. The part above the gum is known as the crown; that below as the root; and that connecting the two as the neck. Covering the crown of the tooth and protecting the more tender parts, is the hardest substance found in the body, enamel. Surrounding the root is a somewhat softer substance known as cement. Beneath the enamel and cement, and forming a greater part of the tooth is a yellowish, white ivory called dentine. The dentine surrounds the pulp cavity which contains the pulp, nerve, blood vessels, etc.

The teeth are all made up, practically, of the same material, and have many characters in common, but are divided into several different classes, according to their functions and external configuration. In both sets, there are four teeth in front in each jaw, which have sharp, cutting, chisel shaped edges, and are called incisors. Back of these come the canines, two in each jaw, which are somewhat stronger than the incisors, and are characteristic of the dog's mouth, from which they

received their name. Just back of these in the permanent set are found two bicuspids, which resemble the canines very much, but are somewhat smaller. In the temporary set, the two last teeth are large, broad, and used for grinding, and are known as molars. But in the permanent set, there develops back of these a third molar.

All but the first two molars are fastened into the jaw by a single root, these having a double root. The root of the canines is much longer and larger than any of the other single roots.

The teeth in each jaw are arranged in an elliptical curve. The teeth of the upper jaw are placed vertically in front and inclining inward, while those of the lower jaw, incline forwards and outwards. The teeth in each jaw are so arranged that when the mouth is closed, any one tooth of one jaw, rests upon two teeth of the other jaw.

Teeth go through a regular process of development known as dentition, each set by itself, yet both developing during the same period and from the same germs.

In man, the teeth are developed directly from the mucus membrane, and are, therefore, appendages of the skin, instead of the bone as many would think. It is not until the seventh week of foetal life, that the first indications of teeth are seen, and that is only a smooth ridge along the whole upper length of the rudimentary alveolar border. This is the first stage of development and is known as the granular stage. Following this comes the papillary stage in which small laminae are developed. By the fifteenth week, these laminae have developed into sixteen small sacks, and this is called the saccular stage. From these sacks, the temporary teeth develop, being only for use while the jaw is in an undeveloped condition.

It is during the saccular stage that the first signs of permanent teeth appear. On the upper side of these sacks, sixteen small buds are thrown off, which gradually work themselves back and below the temporary teeth, and then develop the same as the temporary set.

The eruption of the teeth requires two processes; first, the absorption of the tissues; and second, the elongation of the tooth. The elongation and absorption being about the same. The approach of the time for the eruption of the temporary teeth is usually marked by greatly increased secretion of saliva. They erupt about as follows:- The central incisors, seven months after birth. By the tenth, the lateral incisors; fourteenth month, the anterior molars; twentieth month, the canines; and by the thirty-sixth month, all the temporary teeth are up.

But by this time, considerable progress has been made in the development of the jaw and the permanent teeth, ossification being almost completed. An osseous layer has separated the two sets of teeth until ossification begins in the permanent set; but at this time, atrophy begins and the membrane soon disappears. yet, the two sets of teeth do not come in contact. The roots of the temporary set are soon absorbed, and the permanent.

teeth make their appearance. At the age of nineteen, the entire set of permanent teeth are up, making thirty six in all.

But long before the temporary set are gone, decay has started on its destructive work. Decay consists essentially of a process of gradually softening and disintegration of the tissues, due almost entirely to the action of acids. These acids coming from several sources. It may come from the decomposition of food material which has lodged in the teeth, or, it may be secreted in the mouth from the mucus membrane in larger quantities than can be used with the food. The onset of the disease is aided greatly by some structural defect in the enamel and dentine, and also by some derangement of the general health of the person.

The decay may begin anywhere on the teeth, but usually is found where two teeth are in contact, or in the defects in the molars. Decay always begins on the outside of the tooth, and where something is in contact with the

tooth. Almost always the first sign of decay is a slight discoloring of the part affected, and, at the same time, a softening of the tissues. The enamel begins to waste away, and when the decay finally reaches the pulp cavity, it sets up swelling and irritation of the nerve; and the severest of pain follows. How many a restless night has been spent; just on account of the pain caused by that one, little tooth? And how many are there, that have longed that they might have another chance, so that they might clean their teeth.

Decay may seem something very simple and unimportant, but, did you ever stop to think what may come from a little decay? The amount of pleasure and joy that is barred from you, all because your teeth are poor and you have false ones? Did you ever think what diseases that little decay and a loss of a few teeth may bring on? The very conditions which bring on decay are symptoms of a bad condition of the general health of the body. The nerve that runs to the teeth is a branch of the

nerve that supplies the organs of the five senses, and irritation in that may set up irritation in the other branches, and sometimes affect one of the senses very seriously.

How many persons have had their life cut short because they allowed their teeth to decay and be taken out. The teeth have a certain function to perform and there is no part of the digestible tract which can do the work for which the teeth ^{was intended}. In having the teeth taken out, you invariably throw their work upon some other part of the digestible tract. Part of their work will not be performed and indigestion will follow. The organs which have to do extra work and will be worn out faster than the other organs.

If we are given those little organs to aid in our well being and easy life, why should we not take care of them? They only require to be washed twice a day, three times at the most, and how many are there that would not be glad to spend ten minutes every day cleansing their teeth, if they might have them again, in order that they might

enjoy life in old age, if they had ever
once thought of that little decay carrying
off the number of teeth it did in a
few short years.

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