Hello and welcome back to InterpreterPrep.com

Although you may not be aware of it, there's a whole lot going on every time you put something in your mouth. Wouldn't you like to know what happens to that yummy pasta once it enters the mouth? Well then, let's get started on the journey. We will be following that morsel of food as it goes downnnn...THE DIGESTIVE SYSTEM! This topic will be divided into 4 presentations and we will make the necessary stops along the way to tell you about the signs and symptoms of disease and to make mention of some of the diseases that affect each part of the digestive system.

We can divide the digestive system into 2 parts:

1) The **UPPER G-I TRACT** consists of:
   - MOUTH (aka ORAL CAVITY)
   - THROAT (aka PHARYNX)
   - ESOPHAGUS
   - STOMACH

2) The **LOWER G-I TRACT** consists of:
   - SMALL INTESTINE aka SMALL BOWEL
   - LARGE INTESTINE aka LARGE BOWEL

The **ACCESSORY DIGESTIVE ORGANS** are:

   - TEETH
   - TONGUE
   - SALIVARY GLANDS
   - LIVER AND GALLBLADDER
   - PANCREAS

In this first presentation we will cover: the MOUTH (and all that's in it!). You may want to have a small mirror handy. OK, so it all begins with that first bite of food entering the mouth. The lips seal the mouth so that we can chew comfortably. The cheeks are the side walls of the mouth. Now, if you take your finger and lightly touch the outside of your cheek and then place the tip of your finger inside your mouth and touch the inside of your cheek, you'll notice a big difference right? What you felt on the inside of the cheek is moist and called "mucous membrane". Same piece of flesh but yet so different!

Now, please take your tongue and lift it up to the roof of your mouth. That hard surface you feel there is called the HARD PALATE. If you try, you may be able to follow it back with your tongue and you will notice that it suddenly gets soft! That softness you feel there is the beginning of a flap of soft tissue called the SOFT PALATE. Please be aware that the function of the soft palate is to block food from going up into the nasopharynx when we swallow. When we swallow food has to go down not up!
Now, if you have a small mirror, I invite you open your mouth wide and put that mirror in front of your mouth. In the very back of your mouth you can see a small cone-shaped structure dangling in the back of your throat. It's called the UVULA and is the ending of the soft palate. The uvula helps in producing sounds called uvular consonants when we say words that start in K or G like Karl and Good. It is also the part of the mouth some people tickle to provoke vomiting -bulimics know this well-so you are warned! Don't tickle that...unless you want to gag!

Now let's talk about the “star of the show”: the TONGUE. The tongue is the “muscleman” here moving the food along, mixing it in with the saliva and then ushering it to the back to be swallowed. It is also covered by mucous membrane and is located on the floor of the mouth within the curve of the jaw bone aka: MANDIBLE. Apart from moving the food along, the tongue tells us how good the cooking is thanks to its taste buds which distinguish: sweet, salt, sour and bitter. Now, there are two organs that are there to fight off bugs (viruses, bacteria) called the TONSILS located in the back of the throat, behind the tongue. The tonsils are not part of the digestive system but part of the immune system. I thought it would be good to mention them all the same. Doctors always look at them when we have a sore throat!

As you may have noticed, your mouth is always moist. You have your salivary glands to thank for that! The SALIVARY GLANDS come in pairs and are:

1) PAROTID GLANDS
2) SUBMANDIBULAR GLANDS
3) Then we have the SUBLINGUALS below the tongue.

Now if you take that mirror and lift your tongue up you can follow the LINGUAL FRENUM which is that cord that stretches from under the tongue to the floor of the mouth. Follow it down and you'll notice something sticking out on each side. Those are the sublinguals! They are right there. The saliva produced by the glands is secreted through ducts directly into the mouth and helps liquefy and lubricate the food and to start breaking it down. The chewed food mixed with the saliva is called the bolus.

Last but not least, we have our TEETH. Remember when we were kids and used to yank them out to give to the tooth fairy! Well, those teeth that the tooth fairy took are called the primary or deciduous teeth. There are 20 deciduous teeth so if the fairy left you a dollar for each one well then you got $20. Now if we remember historic route 66 the first 6 reminds us that the primary teeth start coming out at 6 months of age and the second 6 reminds us that the permanent teeth make their appearance at 6 years of age.

The teeth are classified as:

1) INCISORS: which are the front teeth, are sharp and used to take a bite off something (like an apple)
2) CANINES: are the ones that Dracula made famous, called fangs in animals. Used for tearing.
3) PREMOLARS: have two projections or cusps, as opposed to the canines which are single cusp.
4) MOLARS are larger, have multiple cusps and a flatter surface. The function of the premolars and molars is crushing and grinding food. The last molars are known as “Wisdom Teeth”.
We can identify 3 parts on a typical tooth:

1) The top white part called the CROWN is covered by a hard translucent substance called ENAMEL.
2) The NECK is the waistline of the tooth located approximately where the tooth meets the GUM.
3) ROOT: teeth have one or more prong-like projections through which they are attached to the jaw bone. These are the roots.

Below the enamel is another hard substance called DENTIN which is less resistant than enamel and is yellowish in color. These layers protect the PULP aka as the ROOT CANAL which contains the nerves and blood vessels that keep that tooth alive.

SOME SIGNS OF DISEASE: patients can complain of:

1) Pain : TOOTHACHE or a SORE THROAT
2) A growth in the mouth : TUMOR
3) Changes in color : WHITE SPOTS

SOME DISEASES:

1) Of the LIPS :
   - ANGULAR CHEILITIS: medical name for “crack in the corner of the mouth” where the lips meet.
   - HERPES LABIALIS: consists of “cold sores” which are small blisters that appear on the lip. Caused by the herpes virus. Takes all the romance out of a kiss doesn’t it?
   - CANCER OF THE LIP: more frequent on the lower lip and in smokers.
   - CHAPPED LIPS: we’ve all had this one!

2) Of the TONGUE
   - GLOSSITIS: inflammation of the tongue. Tongue is red and tender with a smooth appearance.
   - TONGUE CANCER: what guitarist Eddie Van Halen had. Smoking is baaaaad!!! HPV infection has also been linked to tongue cancer.

3) Of the MANDIBLE (aka JAW)
   - TMJ Syndrome.: pain and cracking at the mandibular joint. TMJ stands for: “temporomandibular joint”.

4) Of the TONSILS
   - TONSILLITIS: inflammation of the tonsils. Usually accompanied by inflammation of the pharynx (PHARYNGITIS) which causes a sore throat.
5) Of the **SALIVARY GLANDS**

- **Inflammatory processes**: like (PAROTITIS) and no, I'm not talking about a sick bird! Parotitis is the inflammation of the parotid gland caused by a **virus** and commonly known as the **MUMPS**, seen mostly in children.
- **TUMORS** of salivary glands
- **STONES**: just like what happens in the gallbladder or kidney, a stone may develop in the duct of a salivary gland. Gland starts to **hurt while eating**.

6) Of the **ORAL CAVITY**

- **APHTHOUS STOMATITIS**: refers to those small but **painful ulcers** that break out **inside** the mouth aka “canker sores”
- **ORAL LEUCOPLAKIA**: white **precancerous lesion** that can occur anywhere in the mouth. Precancerous means that left untreated it can become cancer.
- **THRUSH**: is a **yeast infection** of the mouth characterized by **white lesions**, looks like you ate cottage cheese and forgot to rinse out your mouth. Seen in people whose **defenses are low**.

7) Of the **TEETH and GUMS**

- **CAVITIES**: the first thing is the build-up of **PLAQUE** that progresses with time affecting first the **ENAMEL**, then the **DENTIN** and in the final stage invading the **PULP**. Ouch! Please do visit your dentist regularly.
- **PERIODONTAL DISEASE**: on the left side we see healthy gums and bone. On the right however, the **plaque** which built up over time forms **TARTAR** which provokes inflammation of the gum (**GINGIVITIS**) and leads to the formation of a “**pocket**” (just means that the space between the gum and the tooth got bigger) with **wasting of the underlying bone** all of which **exposes the neck of the tooth**. It's like you have a nest with an egg. If the nest gets too shallow the egg will fall out of the nest! Periodontal disease **loosens** the **tooth** which **eventually falls off**!

**SOME DIAGNOSTIC METHODS:**

Most of the diseases of the mouth will be diagnosed by

1) **ORAL EXAMINATION**: Simple inspection and examination of the mouth

2) **X-RAYS** will sometimes be needed.

3) **BIOPSY**: will sometimes be done in case of a suspicious lesion in the mouth. If I didn't mention it, a biopsy is the **sampling of a tissue** to be sent to a **pathologist** who will study the sample under the microscope and give a **diagnosis**.
SOME TREATMENTS:

1) **SURGERY**: to remove tumors for example

2) **ANTIBIOTICS**: to treat infections.

3) The teeth are treated by: **FILLINGS**, the cavity is cleaned out and the defect is filled with **AMALGAM** or another material. When the cavity is too deep or large a **ROOT CANAL** procedure is done in which the dentist gains access to the pulp to destroy the tooth's nerve so you don't feel pain anymore and then puts a **CROWN** on. **EXTRACTIONS** are done when a tooth can't be fixed. **BRIDGES** and **IMPLANTS** are other treatment options used to replace missing teeth.

4) **VITAMINS** for the glossitis

5) **VACCINE**: there is a vaccine to **prevent mumps** called **MMR**.

Specialists who treat these diseases are:

-DENTISTS
-ORAL & MAXILLOFACIAL SURGEONS
-HEAD AND NECK SURGEONS and others.

In this presentation we have gone over many terms related to **STOMATOLOGY** and **DENTISTRY** while we discussed the anatomy of the mouth. Signs and symptoms of sickness, diseases, diagnostic procedures and some treatments were also discussed. I hope you've enjoyed this lesson and come away with a better understanding of the fields of **STOMATOLOGY** and **DENTISTRY** and the terms related to these fields of medicine.

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