**SAINT GABRIEL COLLEGE**

ANATOMY AND PHYSIOLOGY

Instructor: Elizalde Baldueza

Name: Flores, Lloyd Hendrick G. (BSN-1A) Date: October 10, 2022

**Activity 5 – Digestive System**

* **Normal Manifestations of Digestive System.**

The digestive system is made up of the liver, pancreas, and gallbladder as well as the gastrointestinal tract, commonly known as the GI tract or digestive tract. From the mouth to the anus, the GI tract is made up of several hollow organs connected by a protracted, twisted tube. The stomach, small intestine, large intestine, and anus are the hollow organs that make up the GI tract. The digestive system's solid organs are the liver, pancreas, and gallbladder.

Each component of your digestive system works to either break down food or drink into smaller pieces, move food and liquid through your GI tract, or do both. Your body can absorb and transport nutrients from food once it has been cut up into small enough pieces. The waste products of digestion turn into stool as a result of your large intestine absorbing water. The digestive process is regulated by nerves and hormones.

-Parts and Functions of Digestive System

Peristalsis is the physiological process through which food passes through your GI tract. Your GI tract's big, hollow organs are covered in a layer of muscle that allows the walls to move. The motion mixes the contents of each organ as it forces food and liquid through your GI tract. While the muscle in front of the meal relaxes to allow the food to travel, the muscle behind it contracts to force the food forward.

1. **Mouth**- When you eat, food begins to pass through your GI tract. Your tongue forces the food into your throat as you swallow. To avoid choking, a little tissue flap called the epiglottis folds across your windpipe, allowing food to enter into your esophagus.
2. **Esophagus**- The act of swallowing becomes automatic once you start doing it. Peristalsis starts when the esophageal muscles get a signal from your brain.
3. **Lower esophageal sphincter**- The lower esophageal sphincter, a ring-shaped muscle, relaxes as food reaches the end of the esophagus and allows it to flow into the stomach. This sphincter typically remains closed to prevent reflux of stomach contents into the esophagus.
4. **Stomach**- After food enters your stomach; digestive juices are combined with the food and liquid by the stomach muscles. Your small intestine receives the chyme, or stomach contents, as they slowly exit the stomach.
5. **Small intestine**- The pancreas, liver, and intestines' digestive juices combine with the meal as it is moved forward for further digestion by the small intestine's muscles. Your small intestine's walls allow water and nutrients that have been digested to enter your bloodstream. The digestive system's waste materials travel into the big intestine as peristalsis proceeds.
6. **Large intestine**- Undigested food components, fluid, and aging cells from the lining of your GI tract are examples of waste products from the digestive process. The large intestine takes in water and transforms liquid waste into feces. The stool is assisted in entering your rectum by peristalsis.
7. **Rectum**- When you have a bowel movement, the rectum at the bottom end of your large intestine pushes stool out of your anus.

Three solid organs of Digestive System:

1. **Liver**- The liver excretes a substance known as bile and controls the majority of blood chemical levels. This aids in removing waste from the liver. The liver receives all the blood that exits the intestines and stomach.
2. **Gallbladder**- Bile from the liver is stored and concentrated in the gallbladder. The bile is subsequently expelled into the duodenum, the first part of the small intestine, where it aids in the digestion and absorption of lipids from food.
3. **Pancreas**- During digestion, your pancreas makes pancreatic juices called enzymes. These enzymes break down sugars, fats, and starches. Your pancreas also helps your digestive system by making hormones. These are chemical messengers that travel through your blood.

* **Abnormalities or Conditions affecting the Digestive System.**

Disorders of the digestive tract, also referred to as the gastrointestinal (GI) tract, are known as digestive diseases. During digestion, food and liquids are reduced to tiny pieces (referred to as nutrients) that the body may absorb and utilize as fuel and cell-building components. The esophagus (food tube), stomach, large and small intestines, liver, pancreas, and gallbladder make up the digestive tract.

-Information’s

1. **Bleeding**- Bleeding in the gastrointestinal tract (GI) is a sign of a problem with your digestive system. Though it isn't always visible, the blood frequently manifests in stools or vomit, making the latter appears dark or tarry. Life-threatening bleeding can range in intensity from moderate to severe.
2. **Bloating**- Bloating is the sensation of having a stretched-out or excessively full stomach. Additionally, you can experience cramping, burping, diarrhea, constipation, edema, and excessive gas. It takes place when the digestive system's organs are overworked, such as when liquids, gases, or solids collect in one area of your stomach.
3. **Constipation**- The most common causes of constipation are when waste or stool goes through the digestive tract too slowly or cannot be efficiently evacuated from the rectum, which can result in the stool being hard and dry.
4. **Diarrhea**- When the contents of your digestive system pass through it too quickly for the intestines to absorb the fluids or when the digestive system produces too much fluid, diarrhea results. The end consequence is loose, watery feces that are too hydrated.
5. **Heartburn**- When stomach acid backs up into the tube that transports food from your mouth to your stomach, heartburn results (esophagus). The lower esophageal sphincter, a muscle band at the base of the esophagus, typically relaxes when food is eaten, allowing food and liquid to pass into the stomach.
6. **Incontinence**- An inability to control bowel motions that results in unintentional soiling is known as bowel incontinence. Faucal incontinence is another name for it occasionally. Bowel incontinence symptoms can differ from person to person. Some folks suddenly feel the need to use the restroom but are unable to get there in time.
7. **Nausea and vomiting**- Vomiting or nausea that occurs quickly after eating may be brought on by food poisoning, gastritis (inflammation of the stomach lining), an ulcer, or bulimia. One to eight hours after a meal, nausea or vomiting may also be a sign of food poisoning.
8. **Pain in the belly**- Constipation, irritable bowel syndrome, food allergies, lactose intolerance, food poisoning, and stomach viruses are less serious causes of abdominal pain. Appendicitis, an abdominal aortic aneurysm, a bowel obstruction, malignancy, and gastro esophageal reflux are some of the more severe reasons.
9. **Swallowing problems**- Disorders of the nervous system, such as Parkinson's disease or cerebral palsy, esophageal issues, such as heartburn, gastro esophageal reflux disease (GERD), and stroke, head or spinal cord injuries, as well as cancers of the head, neck, or esophagus, are among the conditions that may cause swallowing issues.
10. **Weight gain or loss**- However, there are a few circumstances in which our intestinal health might contribute to weight gain. The majority of digestive issues often result in weight loss due to inadequate food absorption.