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**Cutting Up a Dead Pig Lab**

**19.3**

**Discussion**

**1.** The long digestive tract controls water loss so that the digestive process moves smoothly and has all the moisture needed for the different enzymes and substances that are involved.

|  |  |  |
| --- | --- | --- |
| **Region/Organ** | **Function/Macromolecule**  **Digested** | **Enzymes** |
| mouth | responsible for breaking down food so it can be more easily passed through the digestive tract | salivary amylase is used to break down starch into disaccharide maltose |
| stomach | food is passed to the stomach through the esophagus, then held and continued to be digested by enzymes | pepsin is used to break down protein into short peptide chains |
| small intestine | continues digestion from the stomach, utilizing many enzymes; completes digestion of peptides and sugars | pancreatic amylases, trypsin, aminopeptidase, bile, lipase, disaccharidases, dipeptidases, nucleases |
| large intestine | receives material from the small intestine after nutrients have been absorbed; most water used in the process is reabsorbed here | strong presence of bacteria that help to produce vitamins which are absorbed in the blood |
| liver | produces the substance bile, which is used in the small intestine to break down food; also stores excess glucose | bile, an enzyme that helps to break down fats |
| pancreas | stores many different enzymes and substances that aid digestion | sodium bicarbonate and enzymes that break down carbohydrates, fats, nucleic acids, and polypeptides |
| gall bladder | bile is stored here, before being released to the small intestine | bile |

**2.** If it moves to slowly there could be a backup in the system. If it moves too fast not enough of the proper nutrients will be absorbed.

**3.**

**20.2**

**Results**

* pulmonary, pulmonary arteries, ductus arteriosus

# **Discussion**

1. artery - blood vessels that carry blood from the heart throughout the body

vein - blood vessels that return blood to the heart

1. Because the lungs are not being used yet, so they do not need to be very big.
2. With this circulatory pathway less blood is passed through the body and it is pumped at a slower rate.