

# Dissecting a fetal pig – lab report essay sample



The dissection of the fetal pig in the laboratory is important because pigs and humans have the same level of metabolism and have similar organs and systems. Also, fetal pigs are a byproduct of the pork food industry so they aren't raised for dissection purposes, and they are relatively inexpensive.

Procedure – as in the text book

Purpose:

The purpose of such activity is to dissect the fetal pig and observe various organs.

Materials:

Safety goggles

String

Dissecting pins

Lab apron

Scalpel

Scissors

Dissecting gloves

Hand lens

Ruler

Preserved Pig

Dissecting Tray

Forceps and probe

Observations

Using a ruler, measure the length of the pig from the snout to the tail. Use graph to estimate the age of the fetal pig.

30cm = 12 days old

Locate the liver near the anterior of the abdominal cavity. Record the number of lobes in the liver

4 Lobes

Describe the location of gall bladder Underneath right lobe, grey/white color

Describe the appearance of the pancreas Creamy – white, tubular

Describe the appearance of the inner lining of the stomach Wavy long ridges with circular endings

List the organs found in the thoracic cavity Larynx, trachea, heart, left lung, esophagus, left kidney, aorta, bladder, umbilical cord, urogenital opening, penis, scrotal sac, rectum, ureter, right kidney, inferior vena cava, umbilical vein, hepatic veins, right lung, thyroid gland

Blood is pumped from the left atrium to the left ventricle and out the aorta  
Ventricle – thicker

Atrium – thinner

Place your index finger on the trochea and push down. Describe what happens.

Liquid gushes out

### Analysis

What is the function of the umbilical cord?

The flexible cordlike structure connecting a fetus at the abdomen with the placenta and containing two umbilical arteries and one vein that transport nourishment to the fetus and remove its wastes.

B) State the function of the following organs: stomach, liver, small intestine, gall bladder, pancreas, large intestine, and spleen

Stomach – receives the bolus of macerated food from the esophagus. Mixing and partial digestion of the food produces a pulpy fluid mix -chyme that passes into the intestine for further digestion and absorption.

Liver – The liver regulates most chemical levels in the blood and excretes a product called bile, which helps to break down fats, preparing them for further digestion and absorption. All of the blood leaving the stomach and intestines passes through the liver. The liver processes this blood and breaks down the nutrients and drugs in the blood into forms that are easier to use for the rest of the body. More than 500 vital functions have been identified with the liver.

Small intestine – digestion of food and absorption of the products of digestion. Enzymes located in the glycocalyx of the microvillus of the

entrecotes complete the breakdown of most sugars and proteins. Absorption of the monosaccharide and amino acids as well as water and electrolytes from the hymen.

Gall bladder – is to store bile and concentrate. Bile is a digestive liquid continually secreted by the liver. The bile emulsifies fats and neutralizes acids in partly digested food. A muscular valve in the common bile duct opens, and the bile flows from the gallbladder into the cystic duct, along the common bile duct, and into the duodenum.

Pancreas – The pancreas is a small organ located near the lower part of the stomach and the beginning of the small intestine. This organ has two main functions. It functions as an exocrine organ by producing digestive enzymes, and as an endocrine organ by producing hormones, with insulin being the most important hormone produced by the pancreas

Large intestine – reabsorption of electrolytes and water and elimination of undigested food and waste. Absorption of electrolytes and water. Barrier – separates the lumen of the digestive tract, which is continuous with the environment, from the body of the organism, immunologic barrier. Secretion large amounts of mucus.

Spleen – The spleen is formed by reticular and lymphatic tissue and is the largest lymph organ. The spleen lies in the left hypochondriac region of the abdominal cavity between the fundus of the stomach and the diaphragm. It is purplish in colour and varies in size in different individuals, but it is usually about 120mm

C) What is the function of the mesentery?

The primary mesenteries are dorsal and ventral, although the dorsal mesentery is often interrupted and moved to one side or the other with the organs and the ventral mesentery is reduced to the membranes of the liver and bladder. Mesenteries running from organ to organ are usually called ligaments.

D) Why does the left ventricle contain more muscle than the right ventricle?

The left ventricle is much more muscular than the right as it has to pump blood around the entire body, which involves exerting a considerable force to overcome the vascular pressure. As the right ventricle needs to pump blood only to the lungs, it requires less muscle.

E) Why do the lungs feel spongy?

When we breathe in, air is drawn through the nose or mouth, into the throat, and down the windpipe (trachea) into the chest. The windpipe branches into two tubes called bronchi, one going to each lung. Inside the lungs, the bronchi branch out many times, like a tree, to form smaller bronchi and then thousands of tiny tubes. These tiny tubes are called bronchioles and end up at tiny, bubble-like air sacs. These air sacs make the lungs spongy.

F) What function do the cartilaginous rings of the trachea serve?

Cartilaginous rings conveys inhaled air from the larynx to the bronchi

G) Make labelled diagrams of the following: