



Virtual Pig Dissection

Background: This simulation of the dissection of the fetal pig was designed to provide an alternative exercise for students in an introductory biology class as well as provide review material for students prior to a lab practical exam.

1. Access: <http://www.whitman.edu/biology/vpd/>
2. Click on Menu in upper right corner. TYPE "Virtual Pig Dissection" in the search box. When it comes up, Click on ""Virtual Pig Dissection" on top, right of page.
3. Click on anatomical references under study guides.
4. Click on Regions of the Pig. Answer the following questions:
 - a. Where is the cranial region?
 - b. Where is the caudal region?
5. Click on Dorsal/Ventral.
 - a. What is the difference between dorsal and ventral?
 - b. What side of the pig is the umbilical cord on?
6. Click on Medial/Lateral.
 - a. Describe the medial direction on the pig.

b. What is the opposite of medial?

7. Close the anatomical reference viewer. Return to study guides and click on Sexing Your Pig.

a. How will you know if your pig is a male?

b. How will you know if your pig is a female?

8. Close the viewer and return to study guides. Click on the **digestive system** .

9. Click on the abdomen of the pig and then click forward two times until you see the internal abdominal organs. Answer the following questions:

a. What organ must be lifted in order to see the stomach?

b. Click of the Small Intestine and Large Intestine. Which organ is longer, the small intestine or large intestine?

c. Click on the Gallbladder. What is the function of the gallbladder?

d. Click on Remove the Liver. When the liver is removed, what structure becomes visible? What is its function?

10. Click Forward.

a. What is the function of the spleen?

11. Click Forward.
 - a. What is the function of the umbilical arteries?
12. Close the viewer and return to Study Guide. Click on the **Circulatory System**.
 - a. What is the function of the circulatory system?
 - b. Rotate the picture to see the lungs. Where are the lungs located?
13. Click on the pig. What does the yellow moving dot represent?
14. Click forward. Are the ventricles at the top or bottom of the heart?
15. Click forward two times. How does the size of the ventricles differ in an adult pig? Why don't you see this difference in fetal pigs?
16. Click forward to read about the beef heart.
 - a. Where does deoxygenated blood flow into heart?
 - b. What structure is blood pumped through when it is returned to the body?
17. Close the viewer and return to Study Guide. Click on the **Nervous System**.
18. Then click the cranial region.
 - a. What structure protects the brain?
19. Click forward two times. Where are the meninges?

20. Click forward. What are the four lobes of the brain?

21. Click forward and notice the medulla oblongata and the spinal cord. You can keep clicking forward to view all parts of the nervous system

22. Close the view screen and return to the study guide. Click on the **excretory system**. Click on start the dissection.

a. What are the main organs of the excretory system?

b. What is the function of the excretory system?

c. Click on the ureters. What is their function?

d. Click on the kidneys. What is their function?

23. You have completed the virtual dissection. When dissecting the pig, which one of the systems do you think will be the most interesting to study? _____ Explain your choice of system.