

SHEEP KIDNEY DISSECTION

In this dissection, you will explore the external and internal anatomy of a sheep kidney. You will want to use the Anatomy and Physiology Kidney Dissection Guide to help you identify the anatomy of the sheep kidney.

FIRST!!

Complete the Dissection Set-Up Checklist

You will be given a kidney when your set-up has been checked off.

CHECKPOINT 1



DO NOT MOVE ON UNTIL YOUR INSTRUCTOR HAS SIGNED OFF ON YOUR Set Up!

Part 1: EXTERNAL ANATOMY

Observe the **renal capsule** and **adipose capsule**.

Find the **renal hilus**. This is the “pinched-in” area where renal blood vessels and the ureter attach to the kidney.

Q1) Describe the renal hilus. Can you tell the difference between the renal artery, renal vein, and ureter? What do each of them look like?

Q2) How does the Renal Capsule look and feel? What do you think the function of the renal and adipose capsules are?

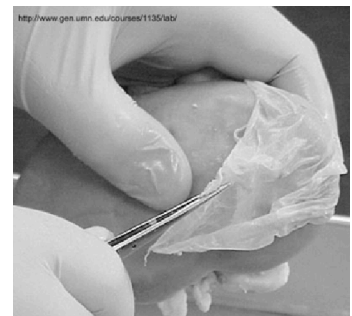
CHECKPOINT 2



DO NOT MOVE ON UNTIL YOUR INSTRUCTOR HAS SIGNED OFF ON YOUR Qs!

Part 2: REMOVAL OF THE RENAL CAPSULE

Carefully, using the forceps, pinch the renal capsule and make a small incision with the scissors to start a hole in the capsule. Using the scissors and forceps, remove the capsule



Keep going!

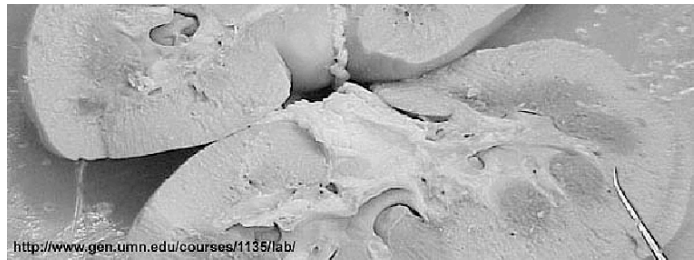
SHEEP KIDNEY DISSECTION

Part 3: FRONTAL SECTION OF THE KIDNEY

CAREFULLY, watching your fingers, cut the kidney in half making a frontal section. You will start your incision on the side of the kidney opposite of the hilus and carefully make your way through the cortex, medulla, pelvis, ureter and renal blood vessels.



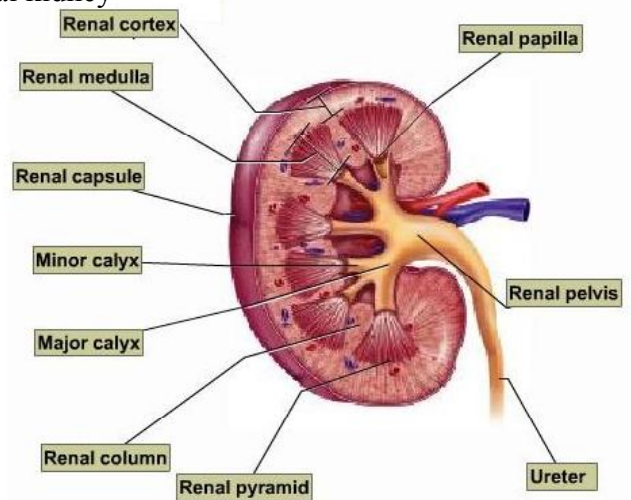
Keep going!



Part 4: INTERNAL ANATOMY OF THE KIDNEY

Use flagged pins to identify the following parts of the internal kidney

Cortex
Renal Column
Medullary Pyramid
Minor Calyx
Major Calyx
Renal Pelvis
Ureter
Renal Artery
Renal Vein



CHECKPOINT 3



DO NOT MOVE ON UNTIL YOUR INSTRUCTOR HAS SIGNED OFF ON YOUR Flags!

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Part 5: MICROSCOPIC ANATOMY OF THE SHEEP KIDNEY

Take a section of each of the following. Make a wet mount on a slide with water, then stain the section by putting one drop of stain on one side of the coverslip and drawing it through with a paper towel. Then, view your slides under the microscope. Draw and describe what you see.

- 1) Section of the Cortex
- 2) Section of the Medulla

Refer to page 16 of the Kidney Dissection Guide for reference.

Cortex Section Description	Medulla Section Description
Cortex Picture	Medulla Picture

Q3) In which part of the kidney do you expect to see the most nephrons?

CHECKPOINT 4



DO NOT MOVE ON UNTIL YOUR INSTRUCTOR HAS SIGNED OFF ON YOUR SECTION 4!

Section 5: CLEAN UP

Complete the Dissection Clean-Up Checklist.

CHECKPOINT 5



DO NOT MOVE ON UNTIL YOUR INSTRUCTOR HAS SIGNED OFF ON YOUR CLEAN UP!

EXTRA CREDIT OPPORTUNITY #1 – PAPER TOWELS

EXTRA CREDIT OPPORTUNITY #2 – GROUP PHOTO submitted before 11:59pm on the day of the lab.

- All lab members present with kidney clearly shown
- All smiling with teeth showing
- All lab members showing “I Love You” in sign language