

Pal worksheet: urinary system, wk14

1. Draw a picture of the kidney in sagittal plane cross-section – include major anatomical structures including blood supply – indicate where the functional units of the kidney are located – name and label them
2. What is the name of the functional unit of the kidney?
3. Draw an example of the functional unit of the kidney, including important contextual (neighboring) anatomy
4. Make a diagram of the urinary system from the point where blood is initially filtered to the point where urine leaves the body – include in your diagram any sphincters that regulate movement of urine
5. Draw a picture of the bladder, including any structures that empty into the bladder, any structures that exit bladder – include in the drawing important internal structures and answer these questions: is the internal wall smooth, rough – what kind of epithelial tissue is located in the bladder? What is the name of the muscular wall of the bladder? What kind of muscle tissue? What type of neural innervation would you predict given this muscle type? Indicate on diagram

Thought questions:

6. Why might urinary tract infections be more common in females than in males, given anatomy?
7. Why is urine considered a filtrate of blood and where does this filtration take place?
Bob has lots of protein and sugar in his urine – is this normal? why or why not? - provide anatomical/physiological explanation
8. Are there any accessory structures associated with the kidney? What function?