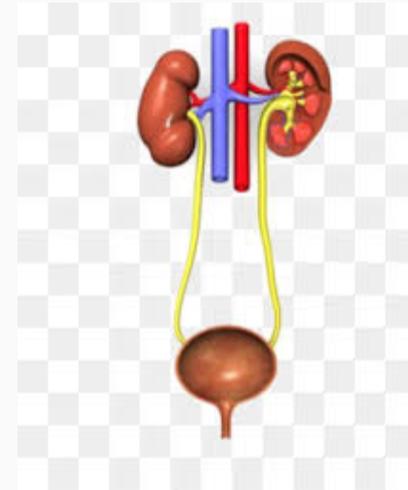
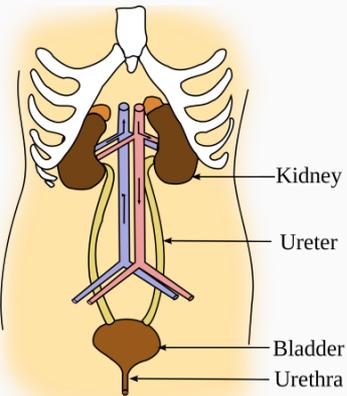


Excretory System

By: Hayden, Delaney, Purneet, Prerana, Skyla, Meena

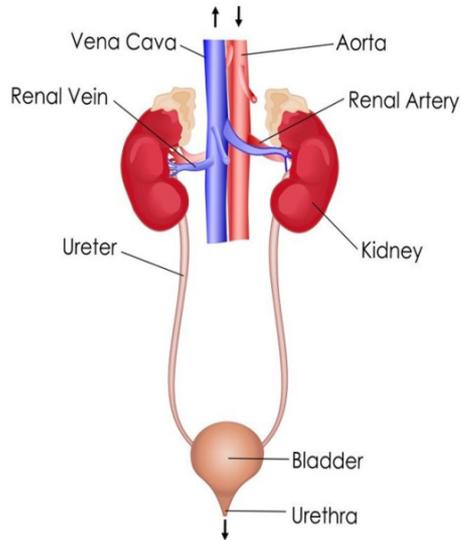


Only write down
the blue and
underlined!

Vocabulary

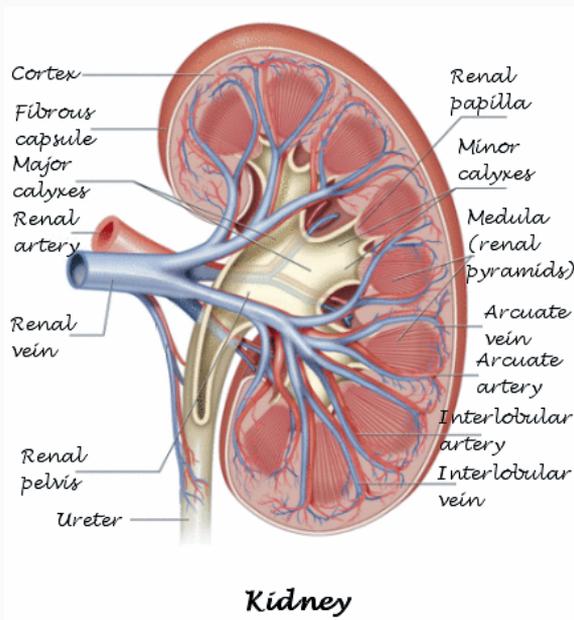
- **Oxygenated:** It is a supplement or enriched with oxygen in it.
- **Metabolism:** The Metabolism is the part of the body that will have chemicals that will process to let the body fuel properly.
- **Lumbar:** Area around the lower back
- **Pleural Fluid:** Excess fluid outside of the lungs.
- **Hulim:** Part of the body where the nerves and vein enter from
- **Atrium:** Receives and holds the deoxygenated blood from the Vena Cava.

What Is The Excretory System?



- The excretory system is a system that cleans and removes waste from the body that can be urine, the system also balances the fluids in the body, the fluids are water and salt.
- The body needs a balance of 60% of water, **0.15% sodium** and **0.15% chlorine**.
- The system is a part of the bladder, ureters, Lungs, Kidneys, Renal artery, Renal Vein and more.
- This system includes organs from different systems too!

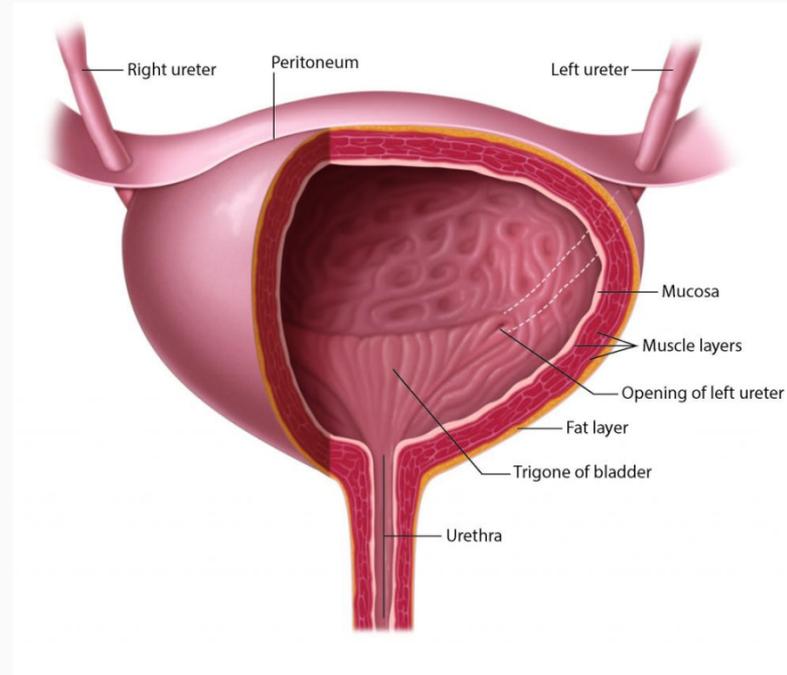
What is the Kidney?



- Kidneys are a shape of beans and can be the size of a fist, they filter the blood, however the kidneys have 2 tubes that will let the urine flow to the bladder.
- The purpose of the kidneys are to clean out the waste and can remove acids from the body.
- The kidneys control and purify minerals from the blood, the filtering will also be with **food**, **medications** and **toxins**.
- The waste that it filters out makes up the urine.

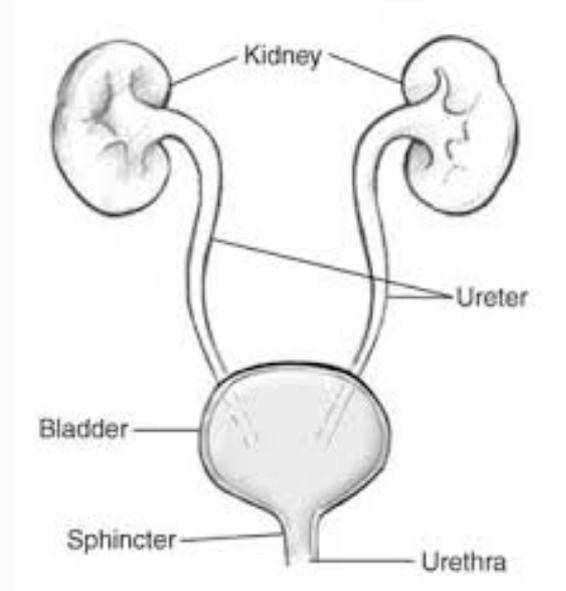
What is the Bladder?

- The Bladder is a muscular sac and stores the urine. It holds about 400 - 600 ml of urine on average.
- The urine is made in the kidneys and goes down ureters down to the bladder.
- The ureters are the two tubes that will help the urine flow to the bladder.
- It is lined by muscles and tissues to hold the urine.



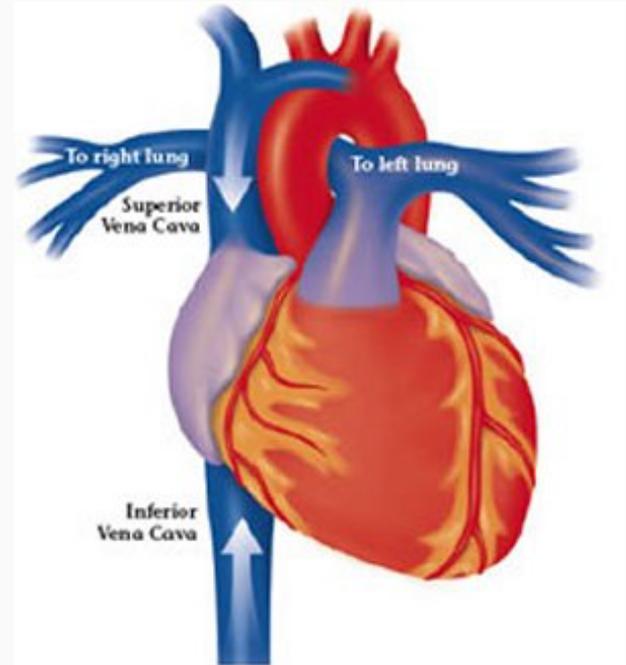
What are the Ureters and Urethra?

- The Ureters are the part that will direct the urine into the bladder, they are tubes that are **9 inches** that are on the sides of the bladder and are connected, they are muscular and connect the kidney and bladder.
- The Urethra is the part that will release the urine from the body, the urethra is a tube.

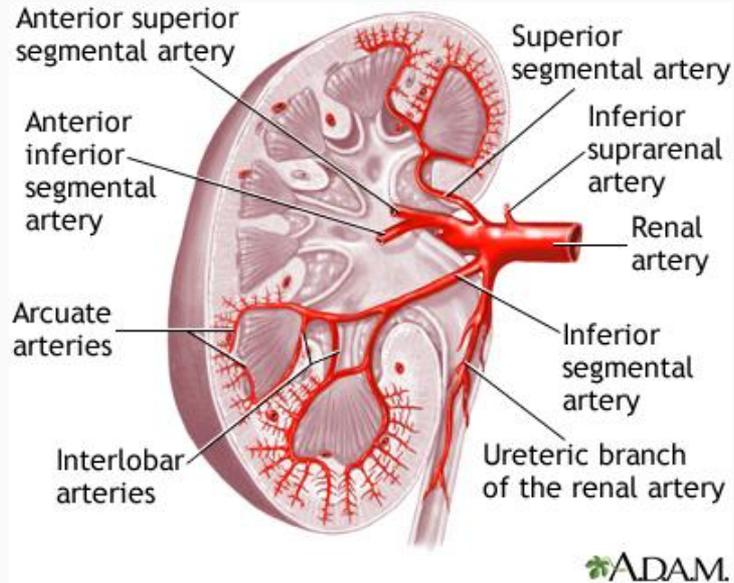


What is the Vena Cava?

Inferior Vena Cava: It is a large vein that carries deoxygenated blood to the heart, and then the heart provides the blood oxygen again. It comes from the legs and the lower torso. It empties the blood in the right atrium section of the heart. It also runs along the right vertebral of the spine.



What is the Renal Artery and Renal Vein?



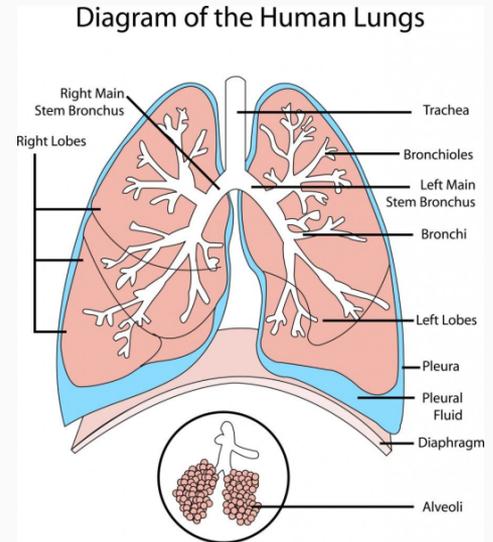
- The Renal Artery is the part of the body that will carry the blood to the kidneys, the blood that is being carried will be oxygenated.
- The Renal Artery is located in the lower back and there will be two of them to supply the Kidneys, however the Artery will connect to the Kidneys through the Hilum.
- As for the Renal vein there are two of them that will drain the drawn oxygen blood, they are connected at the inferior Vena Cava.

Secondary Organs

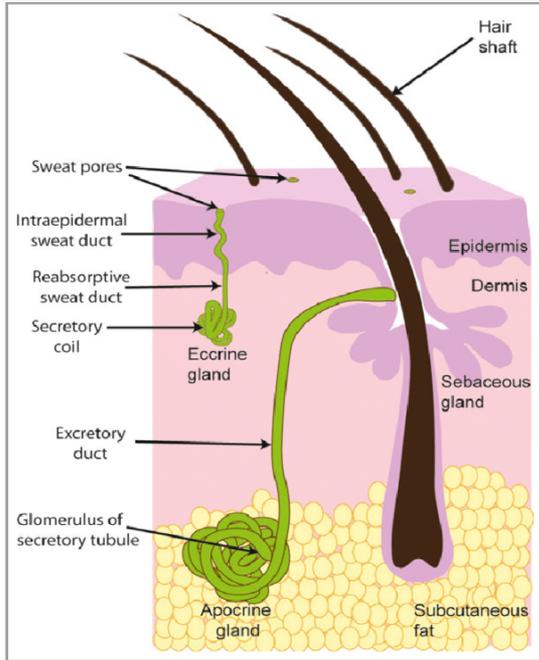


What are the Lungs?

- Lungs are the part that will process gas and the oxygen that comes in will go to the blood, carbon dioxide, therefore carbon dioxide will leave the body from the metabolism.
- The lungs can take part in the acidity in your body and both lungs are not the same size.
- The lungs are behind the rib cage and where the membrane is located that area has a fluid called pleural fluid.



What are the Sweat Glands?



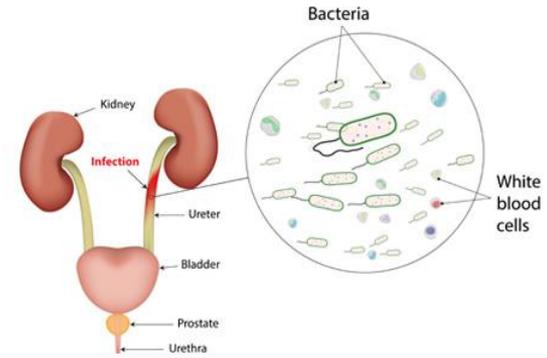
- **Sweat Glands:** They are main part of the body that will create the sweat. It releases excess water and salt.
- There are two types of sweat glands, the first type is **Eccrine Sweat Glands** and **Apocrine Sweat Glands.**
- The difference between Eccrine is that, the Eccrine will process sweat in all places, but Apocrine will process sweat particular spots.

Health & Wellness



Urinary Tract Infection

Urinary Tract Infection



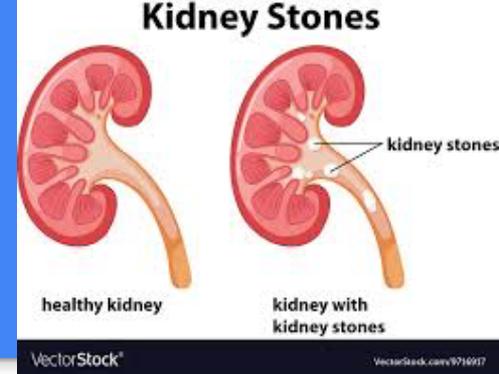
Urinary Tract Infections

Urinary tract infections (UTI'S) occur when E-coli, or bacteria enters into your excretory system. Symptoms of this infection include...

- A burning feeling when urinating
- A frequent urge to urinate, even though a little comes out
- Fever or chills
- Cloudy or foul-smelling urine
- Pain in the back, or on the side below the ribs

Treatment: UTIS are treated using a round of bacteria killing antibiotics (ex: Ciprofloxacin, Amoxicillin) The infection should clear up with antibiotics within 1-3 days.

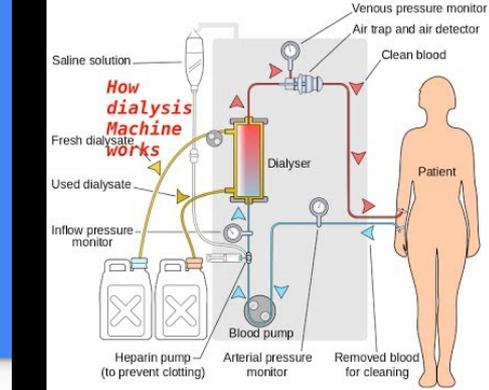
Kidney Stones



A kidney stone is made when certain chemicals in your urine crystalize and stick together. Can range in size from a grain of sand to a golf ball. Some of them you can pass yourself and some need to be professionally destroyed/removed. The larger ones cause lots of pain called colic. Usually made from calcium oxalate (70-80%) some made from uric acid, cystine. Doctors may prescribe pain killers, during the time of passing a kidney stone you need to drink lots of fluid to help pass it. Symptoms: Severe pain, Blood in the urine, Nausea/Vomiting.

Kidney Failure (E.S.R.D)

End Stage Renal Disease, or kidney failure is a chronic disease. When your KIDneys have failed, you can then no longer survive without dialysis or a kidney transplant. Sometimes in certain cases your Kidneys **may** go back to normal (or close to it) through treatment and lots of work. Symptoms include: Itching, muscle cramps, nausea, vomiting, not feeling hungry, swelling in your feet and/or ankles, too much urine, not enough urine, trouble catching your breath, trouble sleeping. If your Kidneys have failed some symptoms may include: Abdominal (belly) pain, back pain, diarrhea, fever, nosebleeds, rash, vomiting. Kidneys do more than just filter blood so even if you are on dialysis you may need to do special things ie: have a drink/eat schedule, taking mineral supplements etc.



Urinary Tract Obstruction

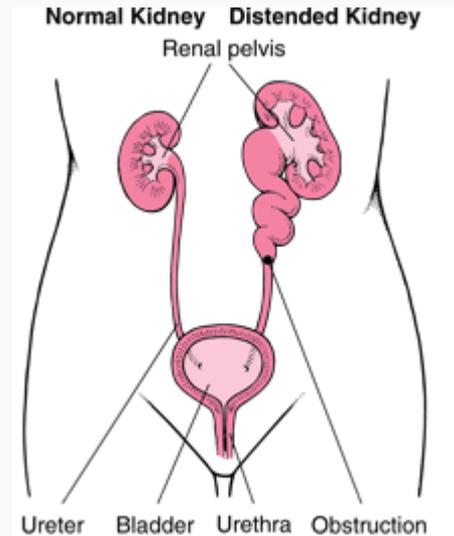
A urinary tract obstruction is a blockage of the urinary tract through the normal way (kidney to ureters, etc.) This is caused by swelling in the tract.

Symptoms

Pain in your side, decreased urine flow, blood in your urine, feeling like your bladder is full after being emptied.

Treatment:

To treat a urinary blockage, surgery is needed to clear the path.



ANCA Vasculitis

This disease causes your antibodies that your body creates to cause inflammation and swelling in small blood vessels in your kidneys, lung and skin.

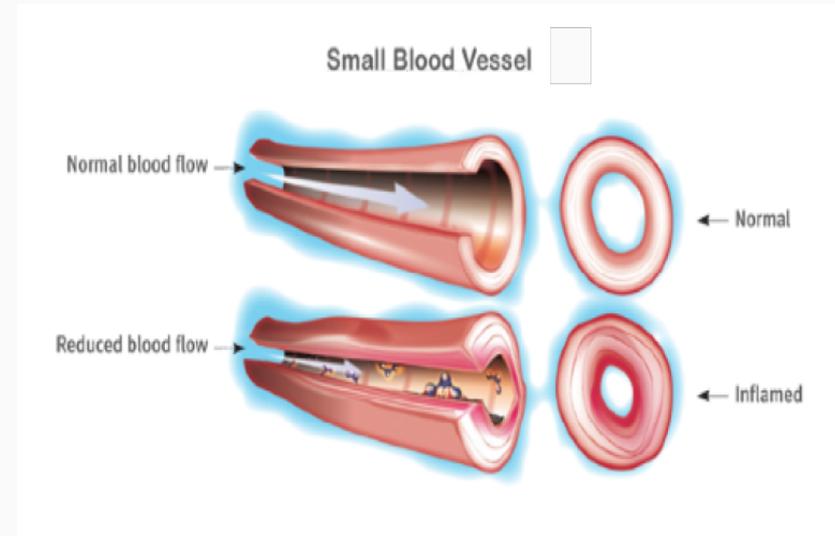
Symptoms:

Weight Loss

Night sweats

Rashes in dotish form

fever



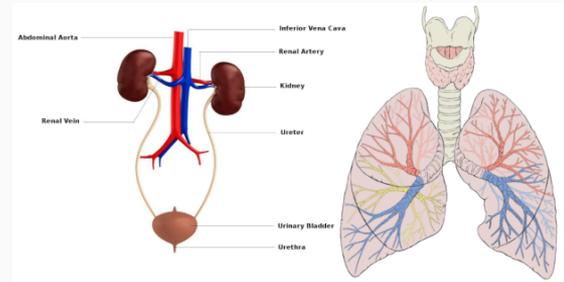
Lifestyle - How To Keep The System Healthy

- ~Drink plenty of water, about 6-8 cups (2 litres)
- ~Limit your caffeine and alcohol consumption
- ~ Don't smoke/Quit smoking or, Don't start
- ~Eat plenty high fibre foods, to avoid constipation
- ~Exercise regularly (and stay a "healthy weight")
- ~Use the toilet often and fully release when you do



Signs That A Person's System Is Being Damaged

- ~ Blood in the urine - sign of bladder cancer, or kidney stones.
- ~ Pain when you urinate- sign of kidney stones.
- ~ Sharp pains in lower back or abdomen (below the ribs) or (between hips and legs)
- ~ Swelling in legs, ankles, feet and hands (fluid retention)



Bibliography

<https://www.niddk.nih.gov/health-information/kidney-disease/kidneys-how-they-work>

<https://www.ck12.org/biology/excretory-system-diseases/lesson/Excretory-System-Problems-MS-LS/>

<https://www.medicalnewstoday.com/articles/305190.php>

<https://biologydictionary.net/excretory-system/>

<https://www.nia.nih.gov/health/13-tips-keep-your-bladder-healthy>

https://en.wikibooks.org/wiki/Wikijunior:Human_Body/ExcretorySystem

<https://study.com/academy/lesson/renal-artery-definition-function.html>

<https://www.healthline.com/human-body-maps/renal-veins#1>

Continued

<https://www.webmd.com/urinary-incontinence-oab/picture-of-the-bladder#1>

<https://www.ck12.org/biology/excretory-system-diseases/lesson/Excretory-System-Problems-MS-LS/>

<https://www.healthline.com/human-body-maps/inferior-vena-cava#1>

<https://www.kidney.ca/kidney-stones>

<https://www.toppr.com/guides/biology/excretory-products/disorders-of-the-excretory-system/>

https://www.cua.org/themes/web/assets/files/pdf/consumers_handbook/27-what_is_a_kidney_stone_and_what_happens_if_i_get_one.pdf

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<https://www.britannica.com/science/atrium-heart>

<http://www.kidneyfund.org/kidney-disease/kidney-failure/>