

Kidney Disease



- Objectives:
 - Discuss the function of the kidneys
 - Name two symptoms of early kidney disease
 - Name two symptoms of late stage kidney disease
 - Discuss the use of dialysis

The Kidneys

* Kidneys are two bean-like shaped organs.

* They filter impurities and waste from the blood, and excrete them via the ureters to the bladder as urine.

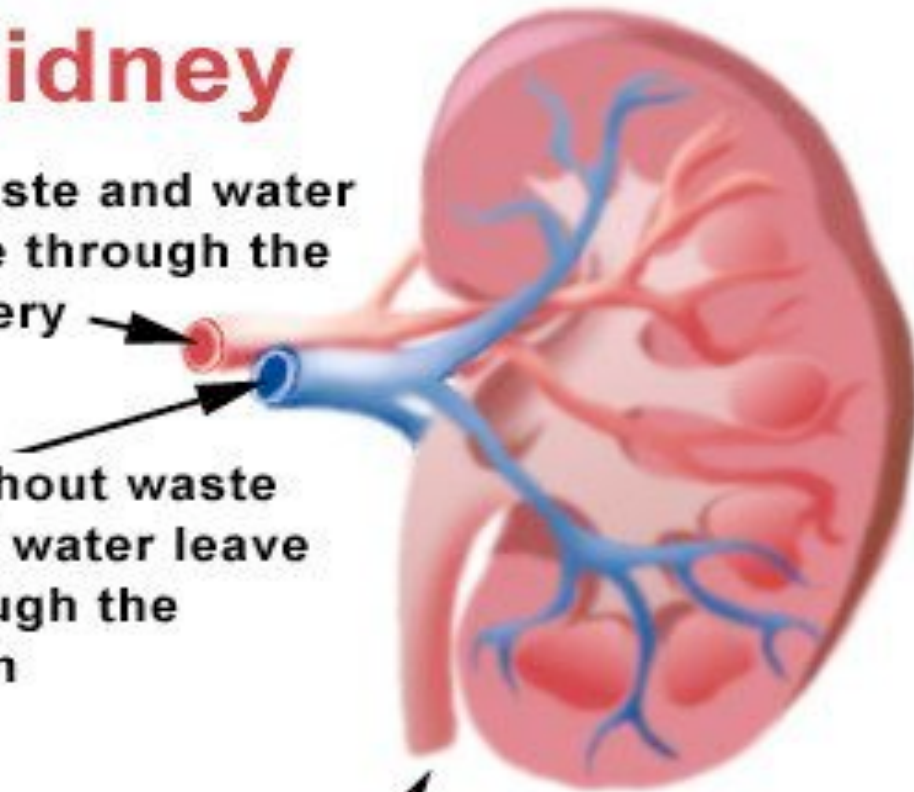


A Kidney

Blood, waste and water enter here through the Renal Artery

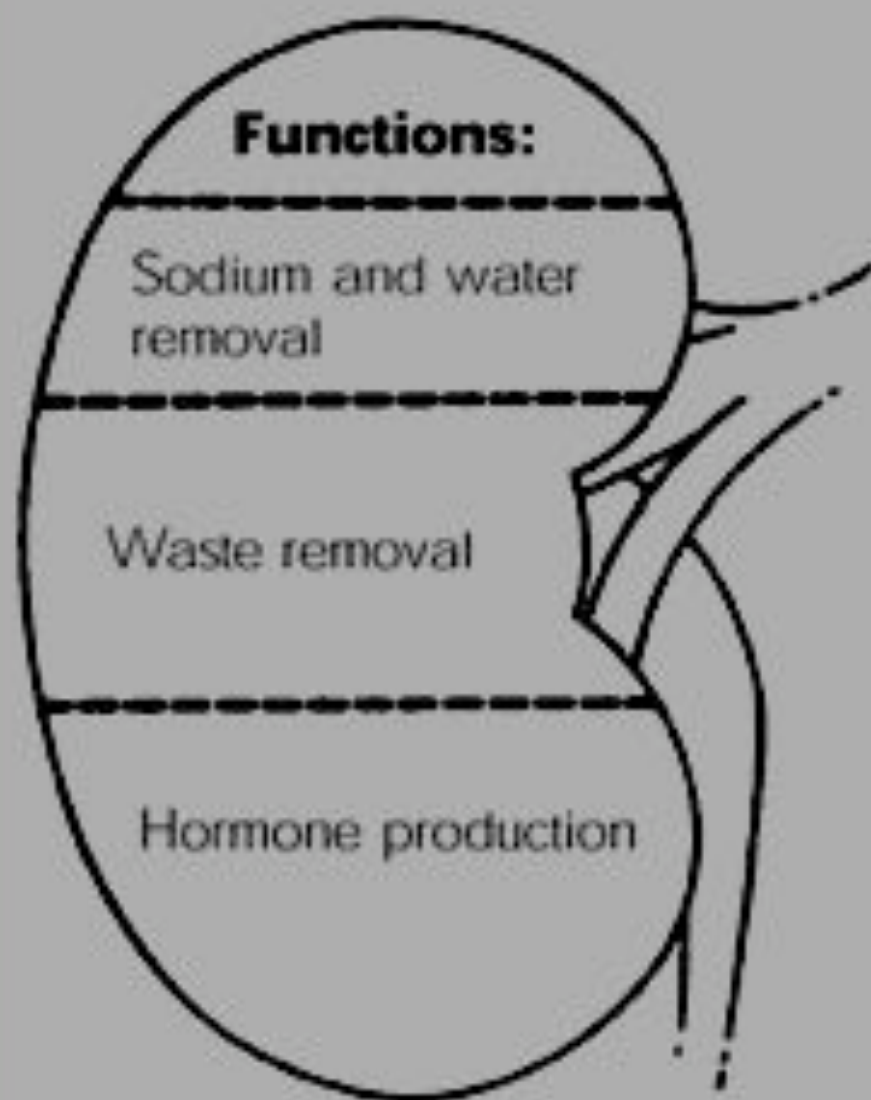
Blood without waste or excess water leave here through the Renal Vein

Excess water and Toxic Waste in the form of Urine leaves here via the Ureter

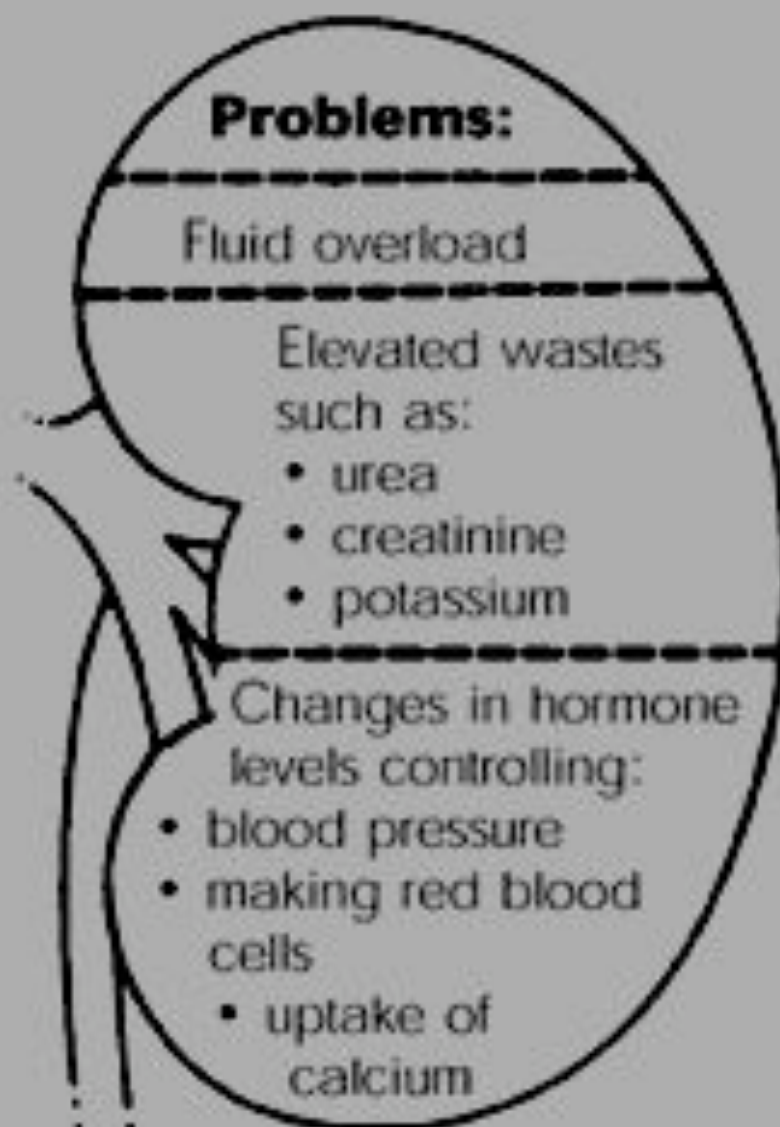


In normal human adults, each kidney measures around eleven centimeters long and approximately five centimeters thick. It weighs about one hundred and fifty grams

Healthy kidney



Unhealthy kidney



- Early symptoms include

Unintentional weight loss, nausea, vomiting, general ill feeling, fatigue, headache, frequent hiccups, generalized itching.

- Later symptoms may include the following

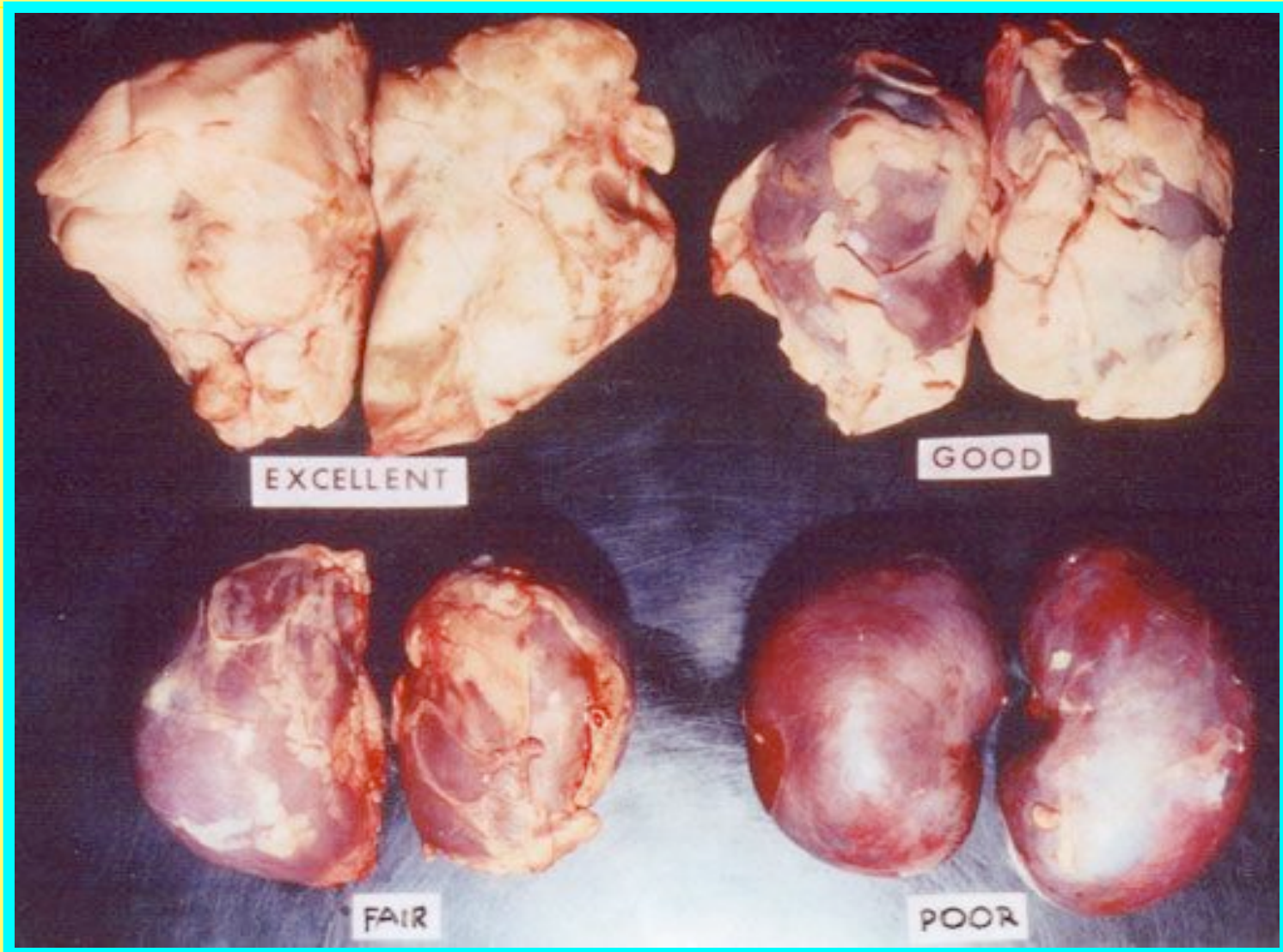
Increased or decreased urine output, need to urinate at night, easy bruising or bleeding, blood in the vomit or in stools, decreased alertness such as drowsiness, confusion or coma. Muscle twitching or cramps, seizures, uremic frost (deposits of white crystals in and on the skin), and decreased sensation in the hands, feet, or other areas

- Causes

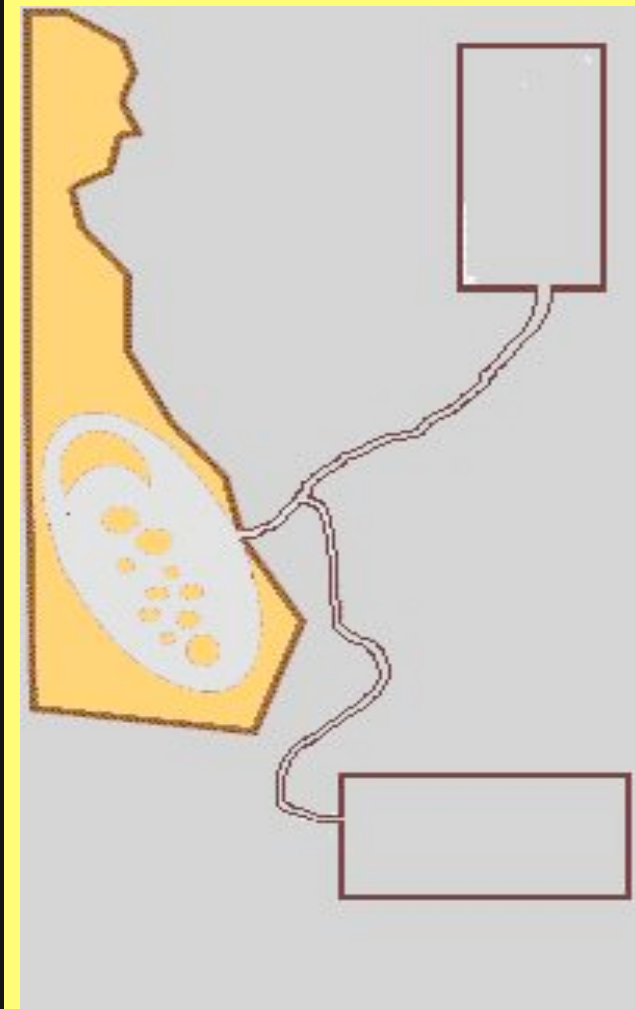
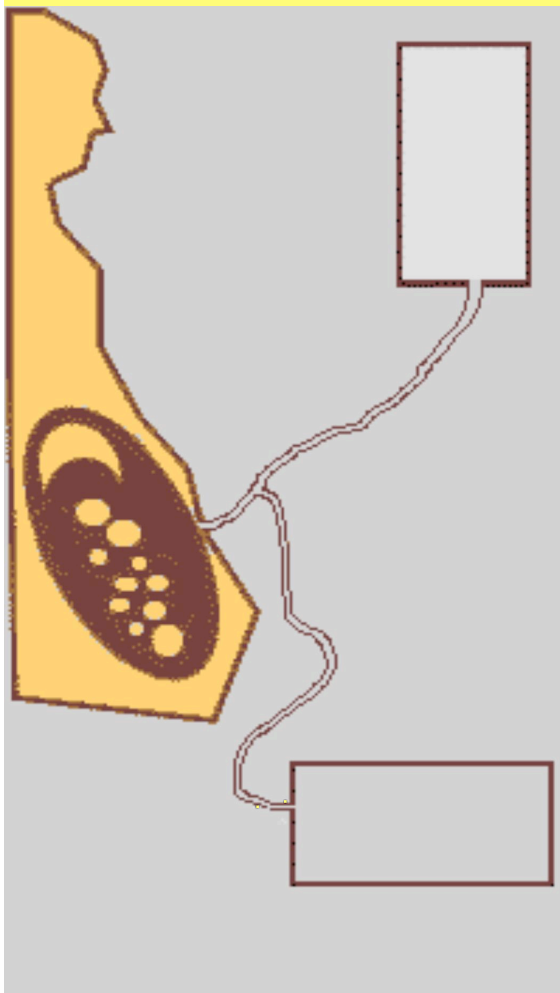
The four most common causes of chronic kidney failure include:

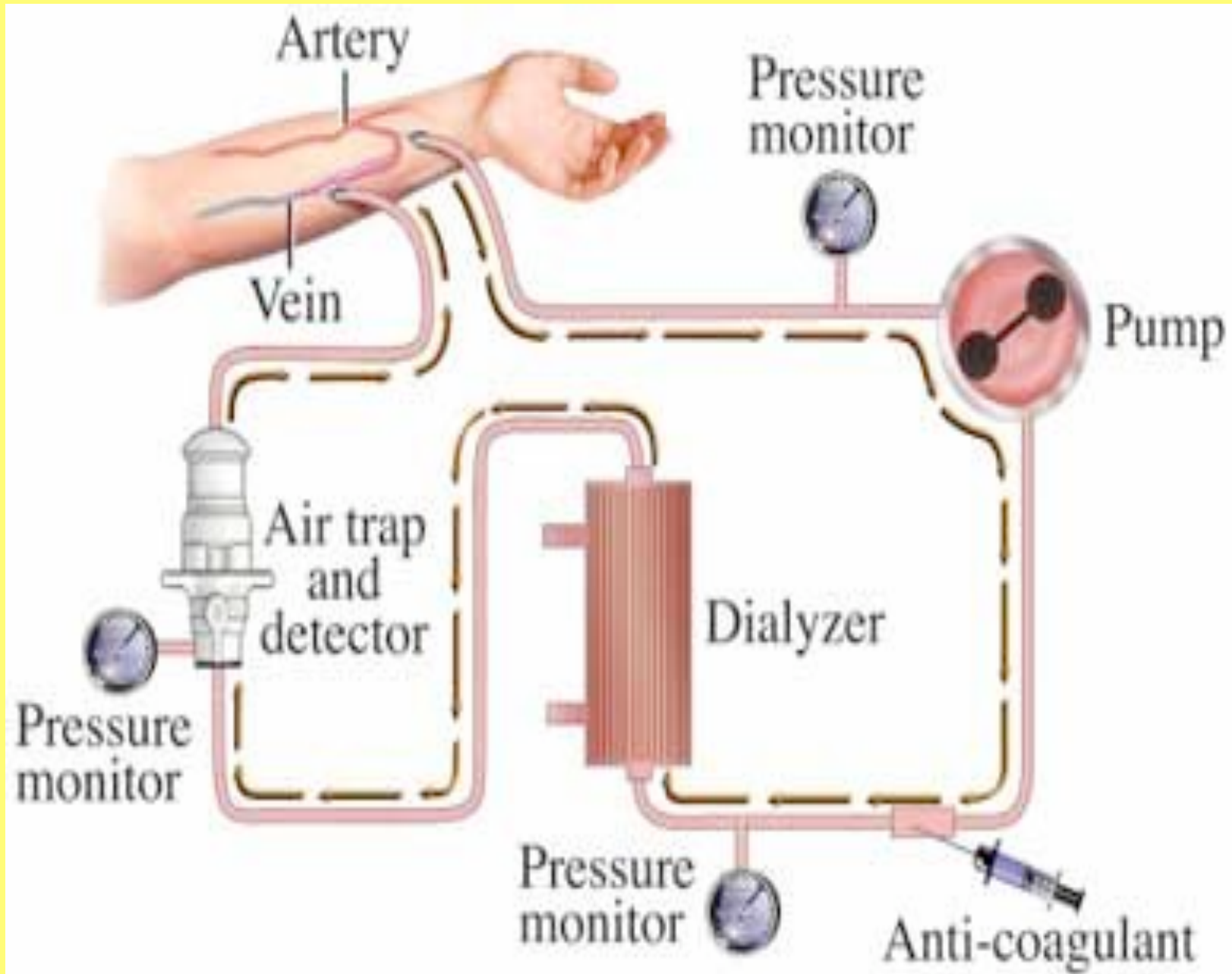
1. Diabetes
2. Glomerulonephritis
3. Hypertension
4. Polycystic kidney disease

Kidneys



DIALYSIS





- Review Questions:

- What is the main function of the kidneys?
- What does the kidney make that contains all the waste products from the blood?
- How is the blood cleaned if the kidneys are not working?