



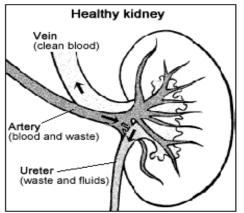
Proteinuria

What is proteinuria?

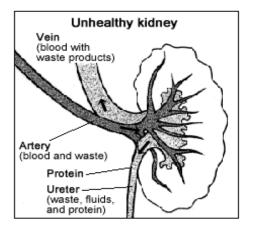
Proteinuria is when protein is in the urine. Kidneys are like a filter. They get rid of waste products from the blood. They also do not allow protein and blood to leak into the urine.

Why does it matter?

Having protein in the urine suggests kidney disease or unhealthy kidneys. It may be the first sign of kidney disease.



No protein leaks from a healthy kidney.



Protein leaks from the unhealthy kidney.

Symptoms

- There are often no symptoms when there is a small amount of protein in the urine.
- A large amount of protein in the urine causes foamy or frothy urine.
- A large amount of protein will cause swelling in the legs, face and belly.
- Another symptom is high blood pressure.

Causes

Proteinuria is caused by damage to small filters in the kidney called glomeruli. The glomeruli can be damaged by diseases that affect the whole body like diabetes, lupus, vasculitis or high blood pressure. It can also be caused by diseases limited to the kidneys.

Methods for Diagnosis

- Urine dipstick testing: One sample of urine is tested to look for protein.
- 24-hour testing: Sometimes, we may need to collect urine for 24 hours or a whole day to confirm the amount of protein in the urine.
- Blood and/or biopsy testing: To diagnose cause of proteinuria requires more testing of blood. A kidney biopsy may also be required.

Treatment

The goal of treatment is to lower the amount of protein in the urine. This will keep your kidneys healthy.

- Low salt diet (2000 mg/day)
- Use of medicines to lower blood pressure and protein in urine (such as ACE-Inhibitors)
- Figure out the cause of protein in urine and treat the disease-causing damage to the kidney.

References/Source of Images

National Institute of Diabetes and Digestive and Kidney Diseases Health Information Center (NIDDK) (2014, September 17) *Monitoring Your Kidney Health*. Accessed July 2020 from <u>https://www.niddk.nih.gov/healthinformation/kidney-disease</u>

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