

## 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



# Mnozhiyaadaa

## LTBB Community Health

### March 2022: National Kidney Month

March has been designated as National Kidney Month. The kidneys have very important jobs within our body. The main focus of the kidneys is to filter toxins from the blood and cre-

ate urine, but many people do not realize they also help to regulate blood pressure and filter out just the right amount of calcium and phosphorus to keep our bones healthy.

*"The kidneys have several very important functions in the body"*

## How Do the Kidneys Work?

Before we can understand how to take better care of our kidneys, we need to understand how they work and the many functions they perform in our bodies. The kidneys are a very important organ in the body. We know that the kidneys produce urine, but how do they work?

The **renal artery** carries blood from the heart to the kidneys to be cleaned. The artery takes the blood to tiny filtration centers within the kidneys called **nephrons**. Each kidney has millions of nephrons working hard to filter out waste and excess water. Within each tiny nephron is a glomerulus and a tubule. The **glomerulus** is a cluster of tiny blood vessels that act as the filter. Clean blood with nutrients is then reabsorbed into the body by the renal vein alongside the **tubule** and the rest of the fluid becomes urine.

Image and adapted information taken from National Institute of Diabetes and Digestive and Kidney diseases

## Functions of the Kidneys

As mentioned, the kidneys perform a lot of important jobs within the body:

**Toxin filtration:** Healthy kidneys filter about a half cup of blood every minute, removing wastes and extra water to make urine. The clean blood and nutrients are then reabsorbed back into the body.

**Blood Pressure Regulation:** The kidneys produce and secrete a hormone called **Renin** which helps to regulate blood pressure.

**Vitamin D Conversion:** If we use vitamin D supplements or soak it in from the sun, our body has to convert it into a different form so that it can be used by our bodies. This active form of vitamin D is what is needed for calcium to be absorbed and creation of healthy bones.

**Stimulate Red Blood Cell Production:** Healthy kidneys produce another hormone called **Erythropoietin** which leads to red blood cell production. Red blood cells keep our blood oxygenated.

In kidney disease, the blood vessels leading to the kidneys become hardened over time and slowly lose their ability to perform all of their important functions. Kidney disease occurs after extended periods of time when blood sugars and/or blood pressures have been elevated. Your kidneys can also become damaged from over use of common over-the-counter medications ibuprofen (ex: Advil, Motrin, Midol) and naproxen (ex: Aleve and Naprosyn).

Diabetes is the leading cause of kidney disease. But, with the right information you can keep your kidneys healthy. Be sure to get your kidney function checked yearly with your doctor. It's also important to work with your health care provider (or team) to keep your blood sugars and blood pressure readings in the target range that you and your provider have agreed on.

**If you have diabetes and would like guidance in your wellness journey, feel free to contact us. —————>**

Information adapted from the National Institute of Diabetes and Digestive and Kidney Diseases and [www.kidney.org](http://www.kidney.org).

### The Thirteen Moons

March is the month of the Onaabani Giizis, or Snow Crust Moon. The maple sap begins to run, providing us with one of the main medicines given to the Anishinaabe which balances our blood sugar and reminds us to keep our lives in balance as well. Ask Charla, RD, about the 13 Moons Challenge!



## CONTACTS

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