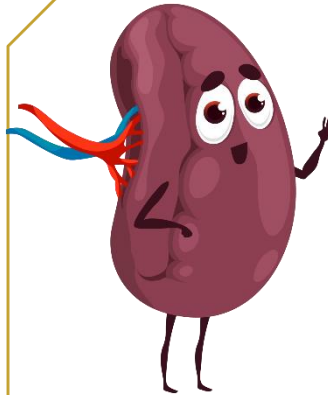




جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مستشفى الملك فهد الجامعي
King Fahad Hospital The University

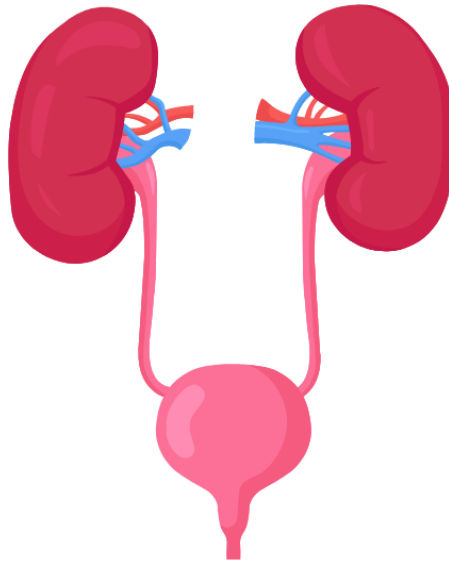
How to protect your kidneys?



What is kidney?

Everyone has two kidneys, one on each side of the spine, just below the ribs.

The kidney is reddish-brown in color, shaped like a bean, and the size of a fist. There are several systems in the body that depend on their work on the kidneys.



What is kidney functions?

The kidney performs several essential processes including urine production and hormone synthesis.

1. Urine production

Poisons waste and of metabolism
end-products (e.g., urea, drugs)
excretion

Body fluid regulation.

What is kidney functions?

The kidney performs several essential processes including urine production and hormone synthesis.

1. Urine production

Acid-base balance maintenance.

Electrolyte concentrations maintenance.

Blood pressure and blood volume Regulation.

What is kidney functions?

Kidney secretes hormones that are important in

2. Hormone synthesis

Regulating blood pressure

Production of red blood cell.

Calcium, phosphorus, and bone metabolism.

How to protect your kidney?

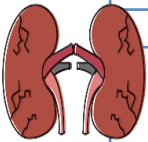
Kidney disease is more likely to occur if you have:



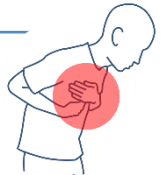
High blood pressure



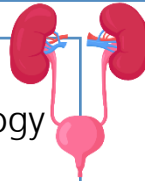
Diabetes



Family history of
kidney failure



Heart disease



Congenital urology
disease

What should I do to maintain the health of my kidneys?

You should prevent or control health conditions that damage your kidney. Such as diabetes and high blood pressure. The following steps will assist you in maintaining healthy kidneys:

- **Manage your blood glucose level and Keep it close to your goal** - Measuring your glucose level is the way to manage your diabetes.
- **Manage your blood pressure and Keep it close to your goal.**
- **Take all your medications as prescribed.**



What should I do to maintain the health of my kidneys?

- **Be cautious when you use over-the-counter pain medications without prescription** - your kidneys can become damaged especially if you use nonsteroidal anti-inflammatory medicines (NSAIDs), like ibuprofen and naproxen.
- **If you get a urinary tract infection (UTI), you should see a doctor right away.** If ignored, UTIs can harm your kidneys.
- **Make your food choices healthy** - You should eat wholesome meals and limit salt and extra sweeteners.



What should I do to maintain the health of my kidneys?

- Engage physical activity in your daily routine.
- Aim to maintain a healthy weight.
- Get enough sleep every night. Aim for 7 to 8 hours.

What should I do to maintain the health of my kidneys?

- **During your medical visit** – ask your health care provider about the health of your kidneys, especially since early kidney disease may be asymptomatic. So getting the necessary tests may be the only way to know that your kidneys are healthy.

- **Key questions for your healthcare provider:**

What is the glomerular filtration rate (GFR)?

What is the result of albumin in the urine?

What is blood pressure?

What is the average blood sugar?

How often should kidney function be checked?



What should I do to maintain the health of my kidneys?

- Drink water according to your physician advise.
- Quit smoking.
- Avoid drinking alcohol.



References:

https://www-uptodate-com.library.iau.edu.sa/contents/assessment-of-kidney-function?search=PHYSIOLOGY%20of%20kidney&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2#H2
<https://www.ncbi.nlm.nih.gov/books/NBK538339/#:~:text=The%20kidney%20regulates%20plasma%20osmolarity,production%20of%20red%20blood%20cell.>
https://www.amboss.com/us/knowledge/Physiology_of_the_kidney/
<https://www.kidney.org/kidneydisease/howkidneyswork>
<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/prevention>

All the histograms from canva.com

Reviewed by:

The content of this booklet has been reviewed by consultant nephrologists in the pediatric department at King Fahd University Hospital

Nephrology Department

Health Awareness Unit

IAU-23-393



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مستشفى الملك فهد الجامعي
King Fahad Hospital The University