Understanding your kidney function results

Kidney function, also called renal function is a common blood test to check how well your kidneys are working. Doctors also sometimes check it before or after you start a medicine that can affect your kidneys, or as part of a wellbeing check.

Your kidneys balance the salt and water content in your body and are also used to get rid of some waste products. They do this by acting like a filter system for your blood.

**Normal result**

A normal result will be within the following ranges:

- Na 135 to 145 mmol/L
- K 3.5 to 5.2 mmol/L
- urea 3.2 to 7.7 mmol/L
- creat 45 to 90 umol/L
- eGFR 80 to 120 mL/min/1.73m² (this number drops as you get older).

**Terms used**

**Na:** this is sodium, one of the salts in your blood which your kidneys helps to control. It helps your body create energy and keep the right balance of salt and water.

**K:** this is potassium, another one of the salts in your blood that your kidneys control. It is important for your muscles and nerves to work properly.

**Urea:** this is something your body makes when it breaks down protein. Your kidneys get rid of it through your urine.

**Creat:** this is creatinine, a by-product your muscles make. Your kidneys get rid of it through your urine

**eGFR:** this stands for estimated glomerular filtration rate, a calculation that measures how well your kidneys are filtering your blood.

**High results**

If your urea or creatinine levels are high it can be a sign of kidney damage or dehydration (not enough fluid).

A high sodium level is usually a sign of dehydration.
A high potassium level is usually a false reading due to a problem with the blood sample. It may be a sign of kidney damage.

**Low results**

Low sodium (Na) could mean your blood has too much water in it, or it could be due to a medication you are taking.

Low potassium (K) means your body has lost too much potassium through your urine, or from vomiting and diarrhoea.

If your eGFR is low, then your kidneys are not filtering as well as they should do. This is a sign of kidney damage.

**Next steps**

If your sodium (Na) or potassium (K) are too high or too low, talk to your doctor or nurse. There are many reasons why these might be outside the normal range, including the effects of some tablets.

If your blood tests show kidney damage or that your kidney function is getting worse, you should see your GP. There are several reasons why your kidneys may not be working so well, but the main causes of kidney damage are high blood pressure and diabetes.

You may need more tests to find out the cause of your kidneys damage, or you may need to change your medicines to protect your kidneys from further damage. Lifestyle changes may also help to prevent more damage – these can include eating less salt, drinking less alcohol, and stopping smoking.

Talk to your health provider if you have more questions about your kidney function test, or if you want to know more about how you can help to look after your kidneys.

*Written by HealthInfo clinical advisers. Last reviewed March 2019.*