

Blood Urea Nitrogen



Does this test have other names?

Urea nitrogen, BUN, serum BUN

What is this test?

A blood urea nitrogen (BUN) test measures the amount of urea nitrogen found in your blood. Urea nitrogen is a waste product made when your liver breaks down protein. It's carried in your blood, filtered out by your kidneys, and removed from your body in your urine. If your liver isn't healthy, it may not break down proteins the way it should. And if your kidneys aren't healthy, they may not properly filter urea. Either of these problems can lead to larger amounts of urea nitrogen in your body.

BUN levels help your healthcare provider see how well your kidneys are working. The test may be used along with other measurements to help diagnose a kidney disorder or find out how well your treatment for kidney disease is working.

Why do I need this test?

If your healthcare provider thinks that you have kidney problems, you may need a BUN test to help diagnose the condition. Symptoms that can mean kidney problems include:

- Needing to urinate more or less often
- Joint or bone pain
- Muscle cramps
- Restless legs while you're trying to sleep
- Fatigue
- Itchiness
- Swelling in the arms or legs

Many people with kidney problems may not have symptoms right away.

You may need a BUN test for other reasons. Depending on your overall health, it may be part of a routine health check to find out how your kidneys are working. If you need dialysis or medicine for kidney function, you may have the test to check the health of your kidneys before the procedure, after the procedure, or both. BUN tests are also routine during hospital stays for certain conditions.

What other tests might I have along with this test?

Your healthcare provider will likely also check the creatinine levels in your blood. On its own, the BUN level does little to tell your provider for sure about your kidney (renal) function. But when it is measured along with creatinine levels, your provider can look at how these 2 levels compare to help find out your kidney function. If this ratio is higher or lower than normal, you may have some type of kidney problem.

If your healthcare provider thinks you may have a kidney problem, you may also have other blood and urine tests. These include glomerular filtration rate (GFR). You will also have your blood pressure checked.

What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

The normal BUN level is between about 7 and 20 milligrams per deciliter (mg/dL). Unless this level is greater than 60 mg/dL, it may not help your healthcare provider measure your kidney health.

A better measure is the ratio of BUN to creatinine found in your blood. Typically, the ratio of BUN to creatinine should be between 10:1 and 20:1. If it's lower or higher than that, it may mean you have a problem with your kidneys or you may not be drinking enough water.

How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

Does this test pose any risks?

Having a blood test with a needle carries some risks. These include bleeding, infection, bruising, and feeling lightheaded. When the needle pricks your arm or hand, you may feel a slight sting or pain. Afterward, the site may be sore.

What might affect my test results?

Your BUN levels might rise even if your kidneys are working as they should for many reasons. These include:

- A high-protein diet
- Steroid use
- Dehydration
- Burn injuries
- Aging

This is why the ratio of BUN levels to creatinine levels is a more reliable measure of kidney health.

How do I get ready for this test?

You don't need to prepare for this test. Be sure your healthcare provider knows about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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