Complete Urinalysis

Does this test have other names?

Urine test, urine examination, UA

What is this test?

This test looks at a sample of your urine.

Your healthcare provider can use the results from this test to help diagnose, find, or track many conditions. These include:

- Diabetes
- Metabolic diseases such as phenylketonuria
- Kidney problems or infections
- Liver problems
- Urinary tract infections
- Lupus
- Heart failure
- Cancer

A lab can look at a urine sample in different ways:

- **Visual inspection.** If urine looks cloudy, red, or reddish-brown, that may mean you have blood or pus in your urine. Sometimes kidney stones can be seen in the urine. The urine may have an odor such as maple syrup, rotting fish, or a moldy or musky smell. These smells can mean certain diseases.
- **Chemical screening.** The lab puts urine on specially treated strips of paper called reagent strips or dipsticks. This screen can give information on how acidic your urine is and if it contains blood, protein, or sugar.
- **Microscopic screening.** Checking the urine and solid materials in the fluid under a microscope can give more information. For example, it can show bacteria, red or white blood cells, and tumor cells in the urine.

Often the lab can measure the specific gravity of the urine sample. This shows how concentrated or diluted your urine is.

Many other tests can be done on a urine sample to help diagnose various diseases, including urinary tract infections and diabetes.

Why do I need this test?

You may have this test as part of a routine checkup.

You may need this test to find a problem that isn't causing symptoms yet. Or your healthcare provider may use it to find the cause of symptoms you are having.

You may also have this test to monitor conditions like diabetes.

What other tests might I have along with this test?

You may also have other tests to help your healthcare provider make a diagnosis.

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.

Urine often contains a number of chemicals and other substances. Urine is usually clear, with a pale yellow color. The pH should be between 4.5 and 8. This is a number on the scale of how acid or alkaline it is. Urine is normally free of protein, glucose, and ketones. An exam under the microscope will normally find up to 5 red blood cells, 5 white blood cells, and no bacteria. Results that are different from these may show that you have a certain health problem.

How is this test done?

This test is done with a urine sample. Your healthcare provider may ask you to collect the sample the first time you urinate in the morning because urine is the most concentrated at that time of day. Or you may be asked to collect all the urine you make during 12 or 24 hours. Or you may be asked to provide a sample at your appointment.

In some cases, your healthcare provider may collect the sample by placing a small catheter directly into your bladder through the urethra.

What might affect my test results?

Menstrual blood can contaminate a urine sample. Vitamin C supplements, food coloring in candy, and the natural color in beets can affect the color of your urine.

Medicines can also affect your results:

- Anthraquinone laxatives
- L-dopa
- Methocarbamol
- Metronidazole
- Nitrofurantoin
- Phenazopyridine
- Rifampin
- Riboflavin
- Sulfasalazine

How do I get ready for this test?

You don't need to prepare for this test. But 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.