

Urinalysis

Definition

Urinalysis is the physical, chemical, and microscopic examination of urine. It involves a number of tests to detect and measure various compounds that pass through the urine.

Alternative Names

Urine appearance and color; Routine urine test; Cystitis - urinalysis; Bladder infection - urinalysis; UTI - urinalysis; Urinary tract infection - urinalysis; Hematuria - urinalysis

How the Test is Performed

A urine sample is needed. Your health care provider will tell you what type of urine sample is needed. Two common methods of collecting urine are 24-hour urine collection and clean catch urine specimen.

The sample is sent to a lab, where it is examined for the following:

PHYSICAL COLOR AND APPEARANCE

How the urine sample looks to the naked eye:

- Is it clear or cloudy?
- Is it pale, or dark yellow, or another color?

MICROSCOPIC APPEARANCE

The urine sample is examined under a microscope to:

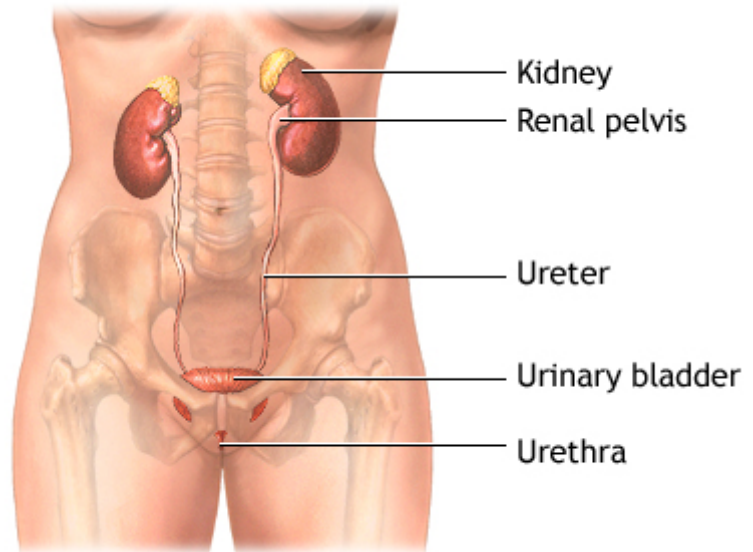
- Check if there are any cells, urine crystals, urinary casts, mucus, and other substances.
- Identify any bacteria or other germs.

CHEMICAL APPEARANCE (urine chemistry)

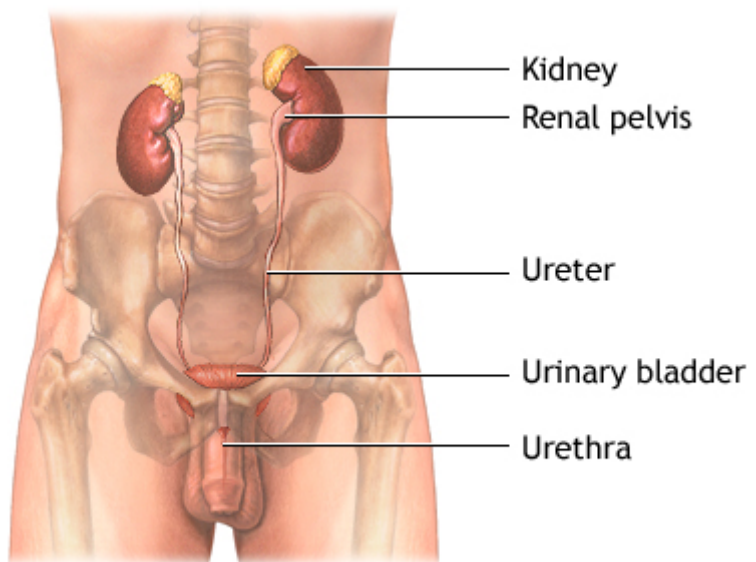
- A special strip (dipstick) is used to test for substances in the urine sample. The strip has pads of chemicals that change color when they come in contact with substances of interest.

Examples of specific urinalysis tests that may be done to check for problems include:

- Red blood cell urine test
- Glucose urine test
- Protein urine test
- Urine pH level test
- Ketones urine test



ADAM.



ADAM.

- Bilirubin urine test
- Urine specific gravity test

How to Prepare for the Test

Certain medicines change the color of urine, but this is not a sign of disease. Your provider may tell you to stop taking any medicines that can affect test results.

Medicines that can change your urine color include:

- Chloroquine
- Iron supplements
- Levodopa
- Nitrofurantoin
- Phenazopyridine
- Phenothiazine
- Phenytoin
- Riboflavin
- Triamterene

How the Test will Feel

The test involves only normal urination, and there is no discomfort.

Why the Test is Performed

A urinalysis may be done:

- As part of a routine medical exam to screen for early signs of disease
- If you have signs of diabetes or kidney disease, or to monitor you if you are being treated for these conditions
- To check for blood in the urine
- To diagnose a urinary tract infection

Normal Results

Normal urine varies in color from almost colorless to dark yellow. Some foods, such as beets and blackberries, may turn urine red.

Usually, glucose, ketones, protein, and bilirubin are not detectable in urine. The following are not normally found in urine:

- Hemoglobin
- Nitrites
- Red blood cells
- White blood cells

Normal value ranges may vary slightly among different laboratories. Some labs use different measurements or test different samples. Talk to your provider about the meaning of your specific test results.

What Abnormal Results Mean

Abnormal results may mean you have an illness, such as:

- Urinary tract infection
- Kidney stones
- Poorly controlled diabetes
- Bladder or kidney cancer

Your provider can discuss the results with you.

Risks

There are no risks with this test.

Considerations

If a home test is used, the person reading the results must be able to tell the difference between colors, because the results are interpreted using a color chart.

References

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