

# Osmolality (Urine)



## Does this test have other names?

No.

## What is this test?

This test measures the concentration (osmolality) of particles in your urine. It finds out if your electrolyte balance is normal and if your kidneys are working as they should. Electrolytes are mineral salts that help move nutrients into your cells and move waste products out of your cells.

## Why do I need this test?

You may need this test if your healthcare provider needs to look at the concentration of your urine, as well as at your fluid and electrolyte balance. This may be needed if your provider thinks you may have:

- Kidney disease or disorder
- Eaten a toxic substance
- Diabetes insipidus

You may also need this test if you have:

- Ongoing (chronic) diarrhea
- Severe, prolonged vomiting
- Excessive urination
- High or low blood sodium
- Fluid loss (dehydration)

## What other tests might I have along with this test?

You may also need some of these tests:

- Plasma electrolytes
- Creatinine
- Blood urea nitrogen, or BUN
- Blood glucose test to rule out diabetes mellitus
- Blood osmolality test
- Blood calcium and albumin

You may need some of these tests if the concentration of sodium in your blood is too high or too low.

## 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.

Results of this test are given in millimoles per kilogram (mmol/kg). A range of 50 to 1,200 mmol/kg is considered normal.

If your results are higher than normal, you may have one of these conditions:

- Dehydration
- Too much sugar in your urine (glycosuria)
- Adrenal problems
- Heart failure, if you also have low urine sodium
- Liver cirrhosis, if you also have low urine sodium
- High-protein diet

Results that are lower than normal could mean you have:

- Diabetes insipidus
- Kidney failure
- Glomerulonephritis, a type of kidney disease
- Excessive water intake

## How is this test done?

This test is done with a urine sample. It may be a random urine sample or one that is collected over a 24-hour period.

## Does this test pose any risks?

This test poses no known risks.

## What might affect my test results?

A high-protein diet could increase your osmolality levels. Drinking large amounts of water could lower them.

## 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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