

# Metanephrines (Urine)



## Does this test have other names?

24-hour urinary metanephrines

## What is this test?

This test measures the amount of metanephrines in your urine that your body makes over a 24-hour period.

Metanephrines are made when your body breaks down hormones called catecholamines. These hormones are made by the adrenal glands. Catecholamines help your body respond to stress. They are sometimes called "fight or flight" hormones. They also include epinephrine, norepinephrine, and dopamine.

## Why do I need this test?

You may need this test if your healthcare provider believes you have a condition called pheochromocytoma or paraganglioma. These are rare tumors that make extra amounts of catecholamines. Pheochromocytomas are found in the adrenal glands. Paragangliomas are found outside the adrenal glands.

Symptoms of pheochromocytoma or paraganglioma include:

- High blood pressure
- Paleness
- Headaches
- Sweating
- Heart palpitations
- Tremors

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

You may also need a blood test that measures metanephrines, called a fractionated plasma metanephrine test. Other byproducts of catecholamines may also be measured.

## 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.

Total urinary metanephrines can be measured in micrograms (mcg). A level greater than 400 mcg over 24 hours is often considered positive.

Different labs have different ways of measuring catecholamine levels. Your healthcare provider will discuss your results with you:

- If your 24-hour metanephrine level is between 1 and 2 times the normal amount, there is about a 30% chance you have a pheochromocytoma or paraganglioma.
- If your 24-hour metanephrine level is twice the normal level or higher, it's likely that you have a pheochromocytoma or paraganglioma. You may need to have imaging tests, including CT or MRI

scans. These tests are done to confirm the diagnosis and find the tumor.

## How is this test done?

This test needs a 24-hour urine sample. For this sample, you must collect all of your urine for 24 hours. Empty your bladder completely first thing in the morning without collecting it. Note the time. Then collect your urine every time you go to the bathroom over the next 24 hours.

Your healthcare provider will likely give you specific directions. Follow them carefully.

## Does this test pose any risks?

This test poses no known risks.

## What might affect my test results?

Certain medicines, foods, and conditions can cause metanephrine and catecholamine levels to be higher than normal. These include:

- Antidepressants and amphetamines
- Physical or emotional stress
- Caffeine
- Bananas
- Withdrawal from drugs or alcohol
- Obstructive sleep apnea

## How do I get ready for this test?

Don't drink anything containing caffeine for 2 days before the test and on the test day. Ask your healthcare provider if you have any food, medicine, or activity restrictions. Tell your healthcare provider 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.

Plan to be home for the 24 hours you do the test so you can store the urine sample correctly.

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