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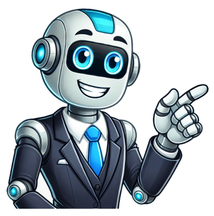

Dexamethasone cortisol test

Some illnesses have clear signs that tell you what they are, like the bull’s-eye rash of Lyme disease or the high-pitched whoop of whooping cough. But others, such as Cushing syndrome, make you work to figure it out.When you have Cushing syndrome, you have high levels of cortisol. That’s a hormone made by your adrenal glands. It affects everything from blood pressure to memory.The challenge with Cushing syndrome is that the signs and symptoms can look a lot like many other diseases. So doctors typically do more than one test to make sure you have it.One of those tests has a mouthful of a name -- it’s an “overnight dexamethasone suppression test.” It can help you learn whether you have Cushing syndrome and what’s causing it if you do.You get this syndrome when you have high levels of cortisol for a long time. It can cause weight gain, thinning skin, easy bruising, and other issues. Longer term, it can lead to conditions such as:Type 2 diabetesHigh blood pressureBone loss (osteoporosis) When your body makes too much cortisol, it’s often because of a tumor. In some cases, these tumors are cancerous, but usually they’re not.A tumor on your pituitary gland is the most common one that causes Cushing syndrome. It’s not cancer, but it causes the pituitary to make too much adrenocorticotropic hormone (ACTH), which stimulates your adrenal glands to produce large and unregulated amounts of cortisol. Adrenal tumors can also cause Cushing syndrome. These tumors may or may not be cancerous.You can also get tumors on other organs where the tumor itself makes ACTH. This is called an ectopic ACTH-secreting hormone. Again, it leads to too much cortisol.Dexamethasone is a man-made version of cortisol. After you take a dose of it, your body should make less cortisol. That’s the idea behind the test -- take some dexamethasone and see whether your cortisol level drops. Usually, the test is done overnight, but it can also be done over 2 days. There are two doses you can take for the test: low dose and high dose. The low-dose test helps you find out if you have Cushing syndrome or not. You typically get 1 mg of dexamethasone.You’d get the high-dose test once you know you have Cushing syndrome. It’s done to find out whether it’s caused by a tumor on your pituitary gland. The high dose is typically 8 mg.You’d get this test if you show signs and symptoms of Cushing syndrome, like bruising easily, weight gain around your belly, and a very round face. Your doctor might also order this test if you have problems that aren't typical for your age but could mean you have Cushing syndrome: For example, if you’re young but have weak bones (osteoporosis), high blood pressure, or diabetes.This test isn’t ideal for everyone. For example, pregnancy and seizure medicines can both affect your results, so you’d likely get one of the other tests for Cushing syndrome.Your doctor may tell you to avoid taking any food or drink 10 to 12 hours before the morning blood test, but that’s about it.Make sure to tell your doctor about any medicines and supplements you’re taking -- some medications, such as birth control pills and seizure medicine, can affect your results.Between 11 p.m. and midnight the night before, you’ll take the dexamethasone. That’s all you need to do until the next morning. Between 8 a.m. and 9 a.m., you’ll get a blood draw to measure your cortisol level.A blood draw takes just a few minutes. Your doctor will:Clean the skin where the needle goes inWrap a rubber strap around your upper arm -- this creates pressure to make your veins swell with bloodPut a thin needle into a vein, usually on the inside of your arm at your elbow or in the back of your handDraw the bloodRemove the rubber strap and put a bandage on your arm or handResults can vary with different labs, so be sure to talk to your doctor to learn exactly what your numbers mean and what your next steps are.For a low-dose test, a healthy cortisol level is below 1.8 mcg/dL (micrograms per deciliter) or 50 nmol/L (nanomoles per liter). These two numbers say the same thing, they just have different units -- just like 12 inches is the same as 1 foot. If your result is higher than that, there’s a good chance you have Cushing syndrome. For a high-dose test, your doctor looks for a 50% drop in cortisol. If your level drops, it’s likely that a pituitary tumor is causing Cushing syndrome. If your level doesn’t drop, you may have a tumor somewhere else.You may get other tests to check for Cushing syndrome and what’s causing it, such as:Corticotropin-releasing hormone (CRH) stimulation test to learn more about the possible causes of Cushing syndromeImaging, such as CT or MRI, to look for tumorsLate-night saliva cortisol or 24-hour urine -free cortisol tests to check cortisol level24-hour urinary cortisol excretion test