

Test Methods for Metal Toxicity

Currently there are a number of different methods to test for toxicity. Unfortunately there is a lot of confusion as to which test method to use and what the results mean once you get them.

The following is a comparison of some of the more common-testing methods.

1) Blood Test

Many doctors will utilize this test as a means of detecting the potential for metal burden. Unfortunately this is not a very good test for this purpose. The blood test or red-blood-cell elements test is designed for an accurate assessment of essential elements in the blood. It is important to note that the elevated levels of the toxic elements in these cells reflect recent or ongoing exposure and do not provide information about the net retention of the metals in the body.

2) Urine Challenge Test

Done intravenously or oral: 24-hour urine collection. This is an excellent method to show which metals are retained in the body. It is important to note that a result of all metals being within “normal” range as set out by the test parameters, does not necessarily mean that your body does not have an issue with metals.

A study to demonstrate the limitation of the test was done on a patient who was diagnosed with mercury toxicity and received intravenous chelation treatment. Once no mercury was found in the urine, they stopped treatment. Nevertheless, 10 years later this person died; and, by doing an autopsy, they still found high amounts of mercury in the tissue. This test must be done by a certified health-care practitioner.

3) Hair Analyses

So far no scientific data exists which correlates metal hair tissue to metal body tissue, eg those who ate high amounts of fish (fish is very high in methylmercury) . The methylmercury will be stored in the roots of the hair (50-times higher than body tissue). Thus the hair analysis will show a very high level of mercury; however, since the methylmercury has been stored outside the body, there is not a real threat to the body. On the other hand, inorganic mercury coming from amalgam fillings or further oxidized methylmercury, has been deposited in the brain, different glands or organs and will not show in the hair analysis. This test can be done by sending a hair sample directly to the lab or through a health-care professional.

4) Electro-dermal Testing

A well-trained practitioner can be quite accurate in assessing the heavy-metal toxicity.

5) Dithizone Test

The dithizone reagent was discovered in 1923 in Germany and served up to 1960s as the only method for assessing heavy metals. It is a color-metric test. The advantage of this test is that the reagent only measures the unbound or free-metal ions. In other words the

metals that are not neutralized by the body are screened. In a healthy body with a fully functioning detoxification system, there should be NO free-metal ions in the urine. Thus the presence of unbound metals in the urine indicates a heavy-metal-toxicity problem. The body is no longer able to cope with free-metal ions. Compared with other types of testing, this one assesses the intracellular heavy-metal burden.

Like most testing methods this test has its own limitations. It will not tell you which of the heavy metals are elevated. Nevertheless, the test will tell you that heavy metals are hindering your body's optimal detoxification system. Once you have done this test and confirmed that you have a burden, you have the option to either do more testing to identify the levels of toxic elements or you can start to consider options to remove the metals. This test can be bought online and done at home.([link to HMT Kit](#))