

METAL DETOX CHALLENGE

Chelating / metal binding agents bind to metal ions and mobilize them from tissue stores. A urinary metals challenge test is the best way to assess the net retention of metals. Most tests require IV or oral administration of an agent, followed by six hours of urine collection. During therapeutic metal detoxification, repeat testing is highly recommended to monitor progress periodically throughout treatment. Commonly used and validated detoxification agents include EDTA, DMPS, and DMSA.

Acute/ongoing metal exposure may also transiently increase urinary metal excretion. It is important to get a baseline urine collection on the day of challenge to screen for acute exposures which may skew post-test results. This pre-test sample is often a first morning void.

Patient Preparation

Suspected sources of exposure should be avoided before provocation (eg., fish and shellfish should not be consumed for ~ 1 week prior to collection). Nonessential medications or dietary supplements should be discontinued for 48 hours prior to and during the specimen collection. Women should not collect while menstruating. The patient should be well hydrated **before** beginning the challenge. Only DDI containers may be used for specimen collection