

**Metal Toxicity:** ICD10 T56.1x1(A,D,S) or T56.1x4(A,D,S)

Functional neurological method to evaluate metal toxicity (MT)  
...mercury, lead, etc. in the central nervous system.

Discussion: Presently only a provocative 6 hour urinalysis is available for laboratory evaluation. Standard blood and urine analysis are not deemed accurate as heavy metals are not water soluble without a binding chelating agent. There is no accurate medical evaluation of MT load in the C.N.S. Amalgam fillings are the most recognized common source.

Theory: A functional neurology challenge test can be demonstrated via a disruption of normal neurology involving walking gait pattern concomitantly with a temporary global weakness of finger opponens flexor challenge. Further delineation to evaluate mild-moderate-or severe levels of MT requires knowledge of basic applied kinesiology skills by commonly identifying predictable organ(s) involvement.

Method: A potential subject is placed in a walking gait (step) position either supine or erect. Concomitantly the patient is instructed to do a simple fine motor coordination activity of rhythmically touching fingers to thumb. Elevated levels of MT will have an aberrant impact on cerebellar activity resulting in a readily observable deviation of above parameters. Within 10 seconds of finger movement and gait position disengagement, the aberrant gait and finger strength will return to original parameters (normal).

Neurological explanation: Cerebellar activity is chosen to evaluate as it represents the densest gray matter and thus the most vulnerable to toxic events. Walking gait involves more primitive brain nuclei than any other single activity. With placement of a static gait step position either in supine or standing, one can predict opposite forward leg, the pec major clavicular (PMC) muscle contralateral will be conditionally facilitated and the ipsilateral PMC will be conditionally inhibited. Next a fine motor activity is introduced such as repetitive thumb to finger movement. This activity concomitantly requires cerebellum activity which being the highest concentration of neurons, is the most vulnerable to global neurotoxin such as Hg and other toxicity heavy metals. A positive test is recognized as a temporary disruption of the normal gait pattern and global weakness of all finger flexors. This test is accurate for mild, moderate or severe CNS toxicity. Further delineation requires knowledge of applied kinesiology skills commonly by identifying predictable organ involvement.