

Diagnosis of metal sensitization with LTT-MELISA[®]

Background

Chronic exposure to metals in jewelry, dental implants and restorations, cosmetics, joint prostheses or even coins sensitize genetically predisposed individuals and induce a so-called Type IV hypersensitivity reaction. While such a reaction typically manifests as contact dermatitis, chronic exposure may also induce systemic effects including headache, migraine, neuralgia, depression, insomnia, arthralgia, paresthesia, fatigue, and immune dysfunction. Chronic exposure to metals has been implicated in the etiology of multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), chronic fatigue syndrome (CFS), fibromyalgia, multiple chemical sensitivity (MCS), and recently autism. Removal or avoidance of the allergenic metal can significantly improve clinical symptoms.

With the standardized and validated *in vitro* LTT-MELISA[®] Test, metal sensitivity can be diagnosed more reliably and without the inadvertent *in vivo* sensitization associated with skin testing.

Method



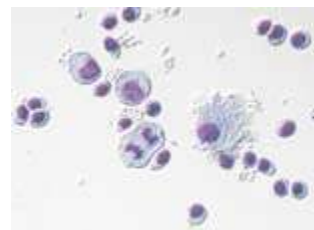
1. isolate lymphocytes



2. co-cultivate with metal salts



3. measure ;H-thymidine incorporation



4. check morphology for quality control

Material required

10-40 ml blood (depending on the number of metals tested) in special Citrate Tubes (please request from the lab)

Current profiles

Metals

Basic Profile	Be, Pb, Cd, Ni, Pd, PhHg, HgCl, Sn, Au, TiO ₂
Extended Profile	Al, Cr, Co, In, Cu, Mo, Pt, EtHg, MeHg, Ag
Combi Profile	Basic- und Extended together
Metals	HgCl, EtHg, MeHg, PhHg, Cu, Au, Ni, Pd, Cr, Co, Mo, Ag, Sn, TiO ₂ , Pt, Cd
Amalgam	HgCl, EtHg, MeHg, PhHg, Cu, Ag, Sn, Ni
Gold Alloys	Au, Ag, Pt, Cu, Pd, Sn, Ga, In, Ir, Ru, Ni
Implant Material	Ti, TiO ₂ , V, Al, Cr, Co, Mo, Au, Ni, Pd, Ag, Pt, Ir, In
Titanium Alloys	Ti, TiO ₂ , CaTi, V, Al, Ni
Methylmethacrylate	MMA
Zirkoniumoxide	ZrO ₂
Dental metal materials	send with blood samples

Literature: see reverse side

Cost: Please contact lab

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Selected Literature

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