



**MELISA®**

## The first and only metal hypersensitivity test in Canada.

**More sensitive and reliable than traditional 'patch test' <sup>1</sup>**

- Optimized lymphocyte transformation test (LTT)
- Type IV hypersensitivity test
- Stimulation Index (SI) greater than 3 provides a positive result

**Convenient and easy for patients**

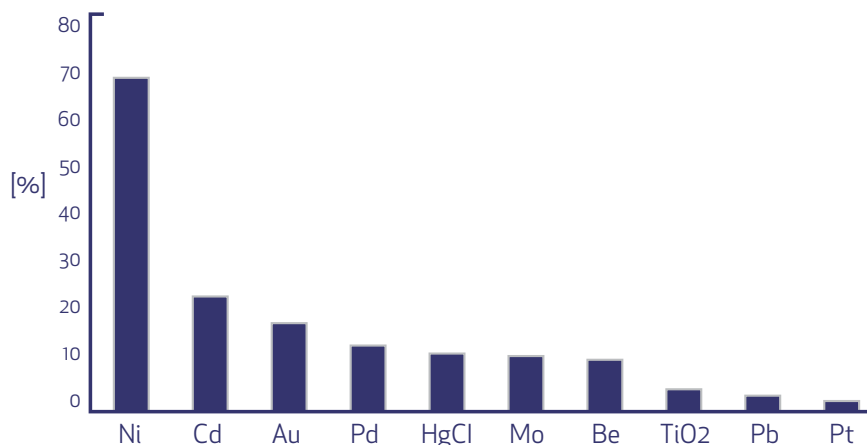
**Over 20 years of research and experience in Europe and USA**

**May be covered by third party plans**

**Available at Rocky Mountain Analytical**

Exposure to metals in some individuals may provoke a hypersensitivity reaction and result in health problems.

**Risk of metal exposure in symptomatic patients: <sup>2</sup>**



Frequency and distribution of metal reactivity in 700 symptomatic patients.



# Metal hypersensitivity

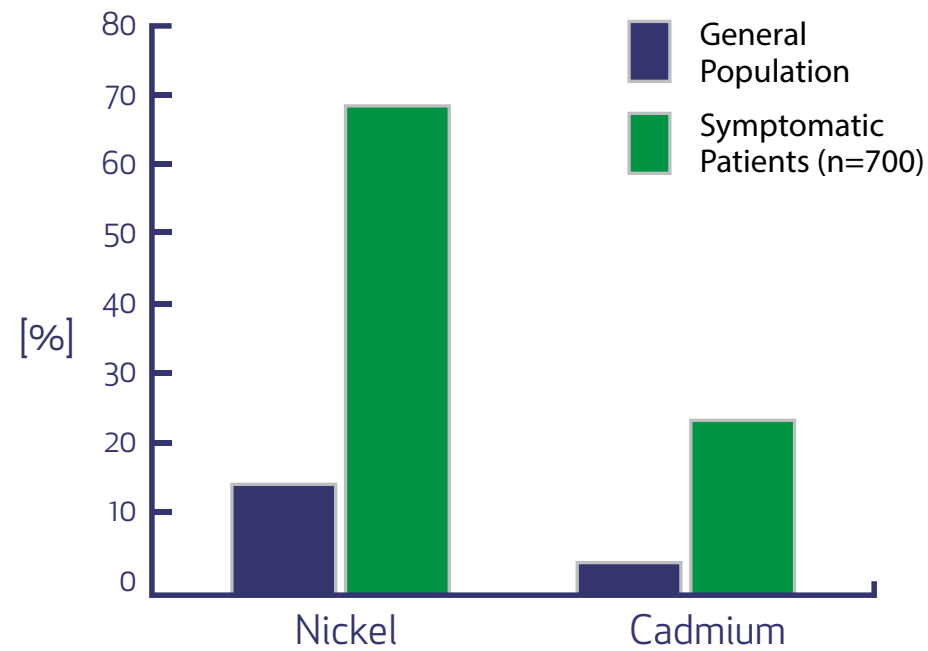
The metals in the middle of the periodic table are called transition metals which are unstable and bind to enzymes and cell proteins.

- Dental restorations include metals such as titanium, nickel, gold and mercury
- Orthopedic implants use aluminum, chromium, cobalt, molybdenum and others
- Jewelry, cosmetics, IUDs are other sources of metals

In genetically susceptible people, this binding of metals would activate the immune system and may lead to hypersensitivity and autoimmunity.



Comparison of metal sensitivities in symptomatic vs. asymptomatic patients.<sup>2</sup>

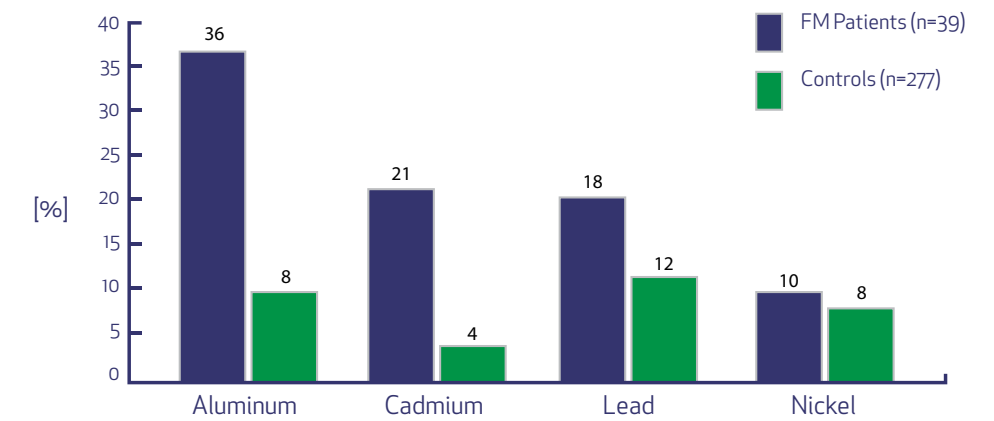


# List of conditions that may be associated with metal hypersensitivity

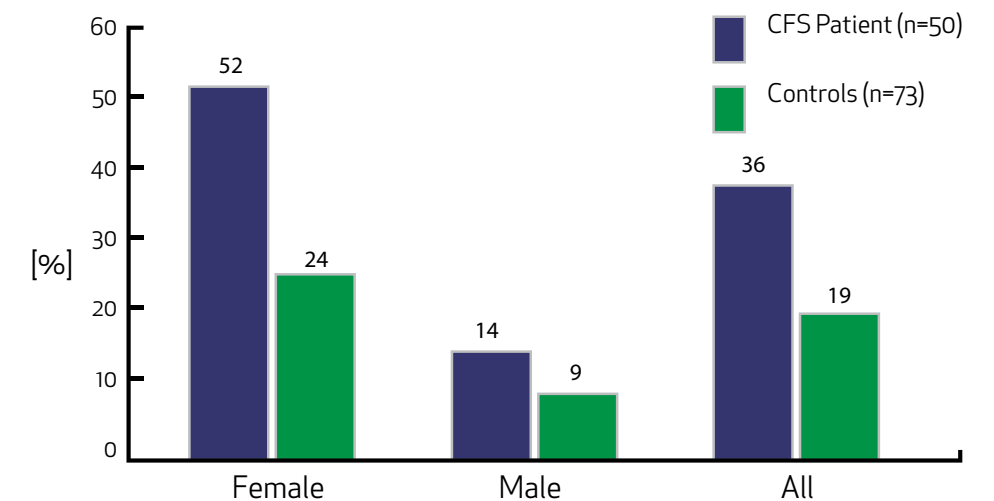
Systemic	Local
• Autoimmune disorders	• Systemic dermatitis
• Chronic Fatigue Syndrome (CFS)	• Multiple Sclerosis
• Fibromyalgia (FM)	• Arthritis
• CNS disturbances	• Headaches
• Depression	
	• Dry mouth
	• Oral lichen planus
	• Burning Mouth Syndrome
	• Eczema
	• Acne

# Removal of allergic metals can result in remarkable clinical improvement<sup>1</sup>

Comparison of metal hypersensitivity in patients with and without Fibromyalgia (FM).<sup>3</sup>



Comparison of nickel hypersensitivity in patients with and without Chronic Fatigue Syndrome (CFS).<sup>4</sup>



# Selecting the right metals panel

Panel	1- Mercury & Amalgam	2- Implants	3- Comprehensive
Typical User	Dental	Orthopaedic	Autoimmune, Dental, Fertility
Aluminum		✓	✓
Beryllium			✓
Cadmium			✓
Calcium titanate		✓	
Chromium		✓	✓
Cobalt		✓	✓
Copper	✓		✓
Ethylmercury	✓		
Gold			✓
Indium			✓
Inorganic Mercury	✓		✓
Iridium			✓
Lead			✓
Manganese		✓	
Methylmercury	✓		✓
Molybdenum		✓	✓
Nickel	✓	✓	✓
Niobium			
Palladium			✓
Phenyl mercury	✓		✓
Platinum			✓
Silver	✓		✓
Thimerosal	✓		✓
Tin	✓		✓
Titanium dioxide		✓	
Titanium Sulphate	✓	✓	✓
Vanadium		✓	
Zirconia			✓

\* Ask for pricing

## References

1. Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett* 2006; 27(Suppl 1): 7-16
2. Valentine-Thon, E, Muller K, et al. LTT-MELISA is clinically relevant for detecting and monitoring metal sensitivity. *Neuro Endocrinol Lett* 2006; 27(Suppl 1):17-24.
3. Shanklin, D., Stevens, V, Hall, M., and Smalley, D. Environmental immunogens and T-cell-mediated responses in fibromyalgia; evidence for immune dysregulation and determinants of granuloma formation. *Experimental and Molecular Pathology* 2000; 69:102-118.
4. Marcusson, J, Lindh, G., and Evengard, B. Chronic fatigue syndrome and nickel allergy. *Contact Dermatitis* 2007; 40(5):269-272.

