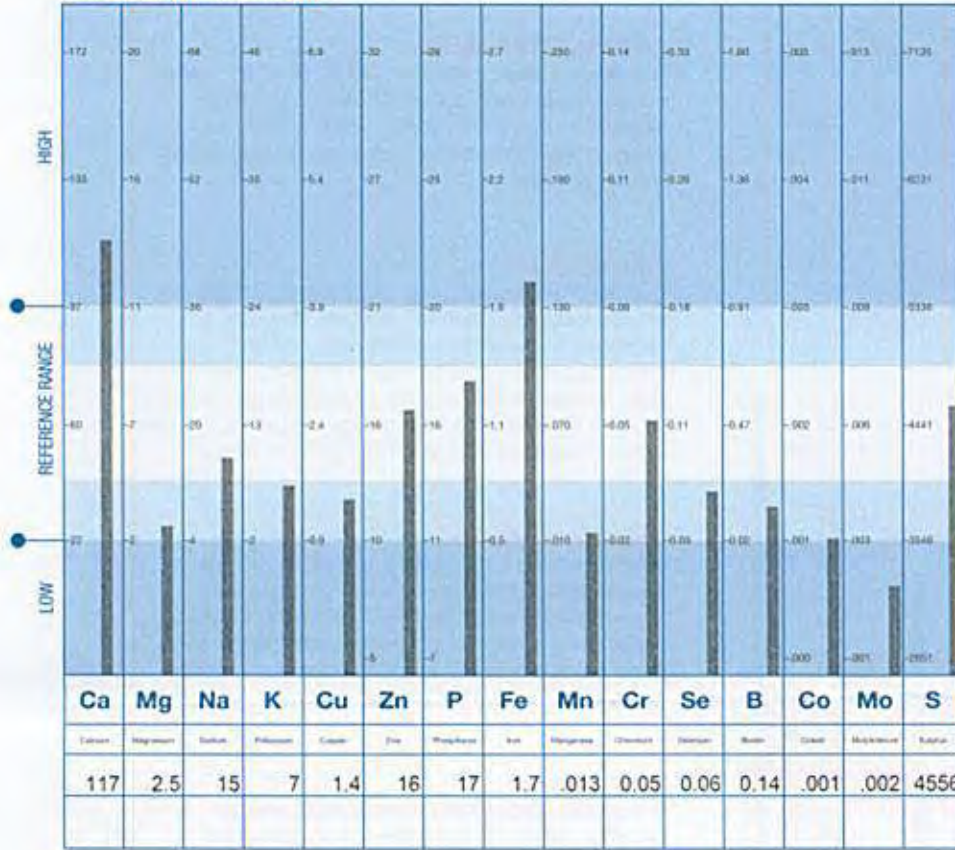
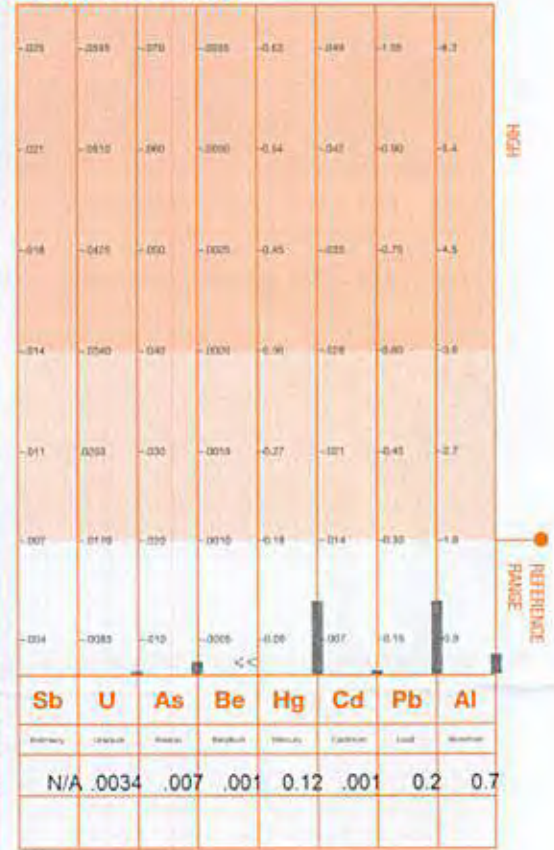


LABORATORY NO:	1303054		
PROFILE NO:	2	SAMPLE TYPE:	SCALP
PATIENT:	AGE: 35	SEX: M	METABOLIC TYPE: SLOW 2
REQUESTED BY: MINERAL CHECK	ACCOUNT NO: 4975	DATE:	06/04/2016

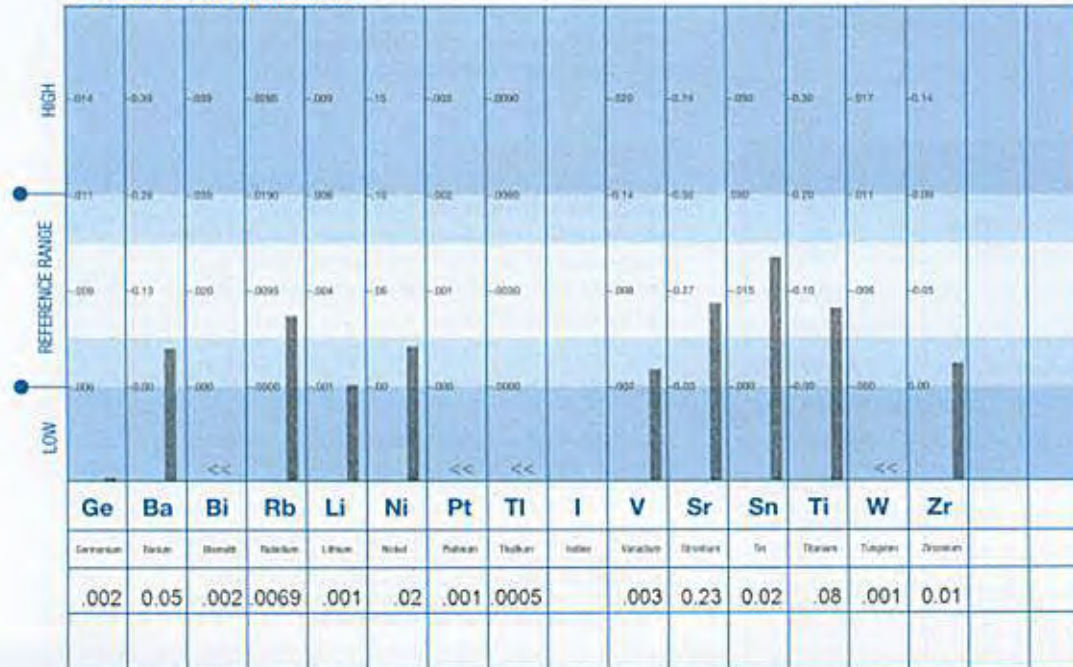
1 Nutrient Minerals



3 Toxic Minerals



2 Additional Minerals



*"<<": below calibration limit; value given is calibration limit.

*"QNS": sample size was inadequate for analysis.

*"NA": currently not available

Ideal levels and interpretation have been based on hair samples obtained from the mid-parietal to the occipital region of the scalp.

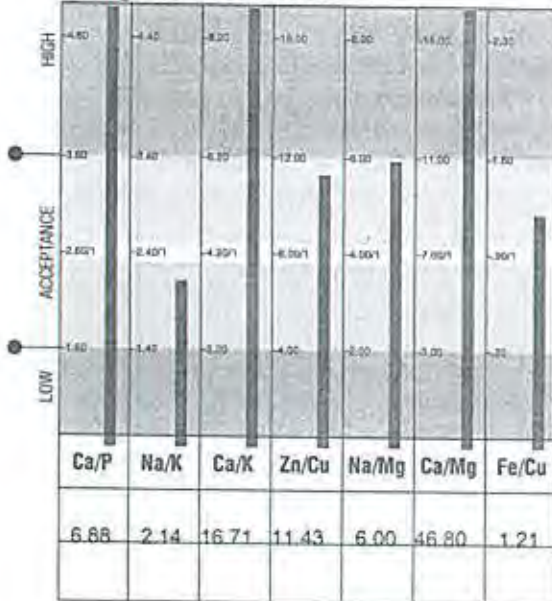
laboratory analysis provided by Trace Elements Inc., an H.H.S. Licensed Clinical Laboratory; No 45 D0481787

06/04/2016

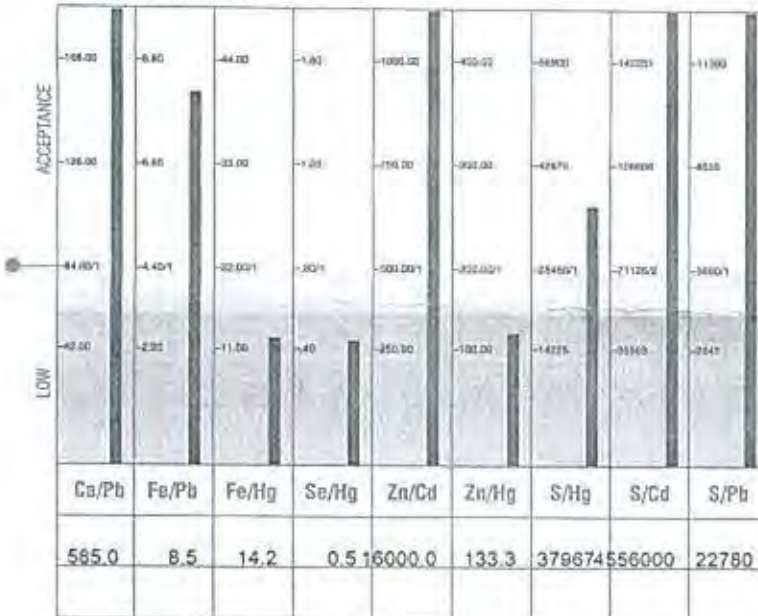
CURRENT TEST RESULTS

PREVIOUS TEST RESULTS

4 Significant Ratios



5 Toxic Ratios



6 Additional Ratios

Ratio	Calculated Value		Optimum
	Current	Previous	
Ca/Sr	508.70		131/1
Cr/V	16.67		13/1
Cu/Mo	700.00		625/1
Fe/Co	1700.00		440/1
K/Co	7000.00		2000/1
K/Li	7000.00		2500/1
Mg/B	17.86		40/1
S/Cu	3254.29		1138/1
Se/Tl	120.00		37/1
Se/Sn	3.00		0.67/1
Zn/Sn	800.00		167/1

Guide to the Graphs and Ratios

1 Nutrient Minerals

The first blue graph (over page) shows the levels of nutrient minerals found in the analysis. They are considered essential for many biological functions and play key roles in such metabolic functions as muscular activity, endocrine function, reproduction, skeletal integrity and overall development.

2 Additional Minerals

The second blue graph (over page) shows additional mineral levels which are considered as possibly essential to the human body. Further studies are being conducted to better define their biological and nutritional roles.

3 Toxic Metals

The first orange graph (over page) displays the levels of toxic metals found in the analysis. They are commonly found in the environment, and are, therefore, present in all biological systems. Ideally these levels should be as low as possible (in the white section). Results in the dark orange area should prompt further investigation as to why they are so high.

4 Significant Ratios

Mineral balance is as important as the individual mineral levels. This section shows the important nutritional mineral relationships; calculated values of respective minerals are contrasted with 'ideal' values. These ratios reflect the critical balance that must be maintained for a healthy body.

5 Toxic ratios

This section displays the relationships between important nutritional elements and specific toxic metals. Each toxic metal ratio result should be in the white area, the higher the better. Ratios falling within the orange area may indicate an interference of a toxic metal upon another nutritional mineral. Individuals with high toxic levels may not always show symptoms associated with a particular toxic mineral.

6 Additional Ratios

This section provides some additional mineral relationships. At this time, there is limited documentation regarding these ratios. For this reason, these ratios are provided only as a source of additional information for healthcare professionals and to assist research.

Notes:

Levels: all minerals levels are reported in milligrammes percent (milligrammes per one hundred grammes of hair). One milligramme percent (mg%) is equal to ten parts per million (ppm).

Reference ranges: all ranges should be considered as guidelines for comparison with the reported test values. They have been statistically established for studying a population of 'healthy' individuals. They should not be considered as absolute limits for determining deficiency, toxicity or acceptance.

Hair Test 1188

I was hoping for some help interpreting my hair test. I think I get the general gist of it but it would be great to know how serious things are...

1. What are your current symptoms and health history?

Symptoms are mostly neurological and gastrointestinal. Neurological problems began at age 14 or so when I became depressed. Following symptoms ensued: social shyness, mood swings, mania, irritability, confusion, fatigue, withdrawal, compulsive behaviour, addictions. All would come and go, I'd be normal a good amount of the time. Gastrointestinal problems began to get noticeable at around 25. By 32 I could barely eat anything without getting sick. Currently avoiding onions and other high sulphur goods, gluten, dairy and sugar. Other symptoms include a tremor in one eye, profuse sweating, IBS "attacks" resulting in crippling bowel pain and constipation etc. But the psychological symptoms are the biggest problem.

2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)

Fillings since an early age, all mercury amalgams. More amalgams fitted in early 20s. One root canal, need to have it checked out.

3. What dental work do you currently have in place? What part of the dental clean-up have you completed?

Amalgams all removed by a very good and relatively safe private dentist but appreciate this was stupid. Need to go back to a biological dentist for a second opinion.

4. What dentistry did your mother have at any time before or during pregnancy?

Some amalgams. She's almost certainly poisoned herself, big thyroid problems, mental illness, possible early signs of Alzheimer's. My father had kidney cancer, diabetes, renal problems etc, used to play with mercury for fun and use it for electrical engineering and his gold mining hobby.

5. What vaccinations have you had and when (including flu and especially travel shots)?

Had tetanus, hep b, hep c, rabies, yellow fever about a year ago before a 6 month travelling trip. Profuse sweating, temperature immediately afterwards, followed by very difficult time travelling alone.

6. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?

None. Test was taken days before first amalgam removal.

7. What is your age, height and weight?

35. 6'1". 185lb

8. Other information you feel may be relevant?

- Smoked a lot of hash as a kid. Me and circle stopped one by one when weed became more available in the UK, all experiencing psychological symptoms which could be related to heavy metal poisoning. Perhaps copper or mercury based fungicides were used on marijuana plants, smoked, and contribute to hypersensitivity. Quit smoking cigarettes about 6 months ago (heavy smoker before that)
- Possible acute exposure in 2004 whilst visiting my father in the US. He keeps mercury around the house (!!). I had what I thought was flu... sharp stabbing pains in my muscles, followed by three days of chronic sore throat and flu like symptoms. Then complete withdrawal, clinical depression, anxiety, swollen feet etc. for 4 years. I nearly didn't make it.
- Possible lead exposure as a young child from old plumbing in bedroom.

MELISA test results also attached. Non-challenge urine test (6 hour, heavy metal) at the lab, waiting for results.

9. What is your location – city & country (so that we can learn where certain toxins are more prevalent).

London, UK. Putney to be precise. High levels of pollution from buses on the high street (diesel, aka lead and mercury). Directly under a flight path.

Thanks a lot, any help or guidance would be hugely appreciated. Feeling very much on my own here.

Test report
1628-1



Test report for	Neg. control	Test date	Referring clinic
DOB 21 April 1981	2489	31 March 2016	MELISA Diagnostics London United Kingdom

Code	Substance	Stimulation Index	Morphology	Evaluation
PWM	<i>Pokeweed</i>	232	+++	<i>Strongly positive</i>
1. Al	Aluminium I	0.8	-	Negative
	Aluminium II	0.7	-	Negative
2. Be	Beryllium I	1	-	Negative
	Beryllium II	0.8	-	Negative
3. Cd	Cadmium I	1.1	-	Negative
	Cadmium II	1	-	Negative
4. Cr	Chromium I	0.3	-	Negative
	Chromium II	0.5	-	Negative
5. Cu	Copper I	0.4	-	Negative
	Copper II	0.7	-	Negative
6. EtHg	Ethylmercury I	0.6	-	Negative
	Ethylmercury II	1	-	Negative
7. Ga	Gallium I	0.5	-	Negative
	Gallium II	1.9	-	Negative
8. In	Indium I	0.7	-	Negative
	Indium II	0.7	-	Negative
9. Hg	Inorganic Mercury I	23.8	+++	Strongly positive
	Inorganic Mercury II	6.9	+++	Positive
10. Ir	Iridium I	0.8	-	Negative
	Iridium II	1	-	Negative
11. Pb	Lead I	1	-	Negative
	Lead II	0.7	-	Negative
12. MeHg	Methylmercury I	2	+	Weakly Positive
	Methylmercury II	1.5	-	Negative
13. Ni	Nickel I	8.5	+++	Strongly positive
	Nickel II	1.4	+	Negative
14. Pd	Palladium I	0.9	-	Negative

	Palladium II	0.7	-	Negative
15. PhHg	Phenylmercury I	0.7	-	Negative
	Phenylmercury II	2.4	++	Positive
16. Pt	Platinum I	1.8	-	Negative
	Platinum II	0.5	-	Negative
17. Ag	Silver I	0.5	-	Negative
	Silver II	0.6	-	Negative
18. Thim	Thimerosal I	0.4	-	Negative
	Thimerosal II	0.5	-	Negative
19. Sn	Tin I	0.8	-	Negative
	Tin II	1.3	-	Negative
20. TiO ₂	Titanium dioxide I	0.9	-	Negative
	Titanium dioxide II	0.6	-	Negative

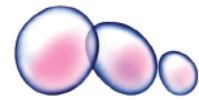
Evaluation of test results

Strongly positive to: Nickel, Inorganic Mercury

Positive to: Phenylmercury

Weakly positive to: Methylmercury

Test report
1628-1

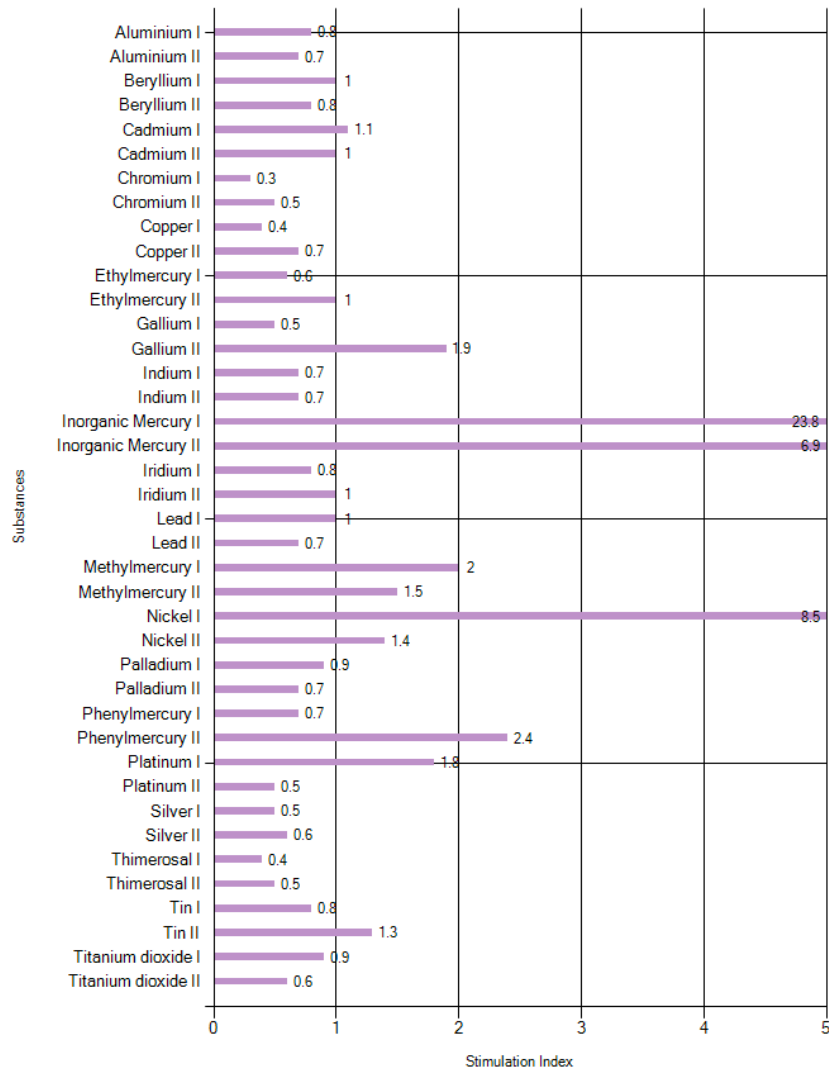


Test report for

Neg. control
2489

Test date
31 March 2016

DOB 21 April 1981





What is the MELISA® test?

MELISA is an advanced blood test for detecting hypersensitivity to metals and other substances. White blood cells from a blood sample are tested against a range of suspected allergens and the reaction monitored. An allergy is indicated when the white blood cells (called lymphocytes) start to expand and multiply. The multiplication of lymphocytes which respond to given allergen is quantified with a radioactive tracer taken up by dividing cells. The existence of stimulated lymphocytes in cultures where allergens have been added, but not in control cultures, is also confirmed by viewing of the cells under the microscope.

What is the Stimulation Index?

The Stimulation Index is the quotient of the uptake of the radioactive tracer in lymphocytes treated with allergens divided by the uptake of the radiolabeled tracer in untreated control cultures. An SI of 3.0, for example, means the cells multiplied three times, indicating an allergic reaction. Here is the SI scale used to evaluate your MELISA results:

- Below 0.3** Toxic. This indicates that the number of blood cells actually declined over the five days. This is a rare reaction, whose clinical relevance is unclear.
- Above 2.0** Weakly positive. Signs of a reaction, showing a weak degree of allergy.
- Above 3.0** Positive. A reaction showing allergy to the given substance.
- Above 10.0** Strongly positive. A strong reaction, where blood cells multiply at least 10 times.

Explaining the details on your test report

Explaining the details on your report

Test report
0943-1

Test report number
Every test is given a unique number

Negative control
This is the value produced by your cells when nothing is added. It is expressed in 'cpm' which means 'counts per minute'. It tells the doctor how sensitive your blood test is.

Substance code
This is the laboratory code for the substances tested

Test report for		Neg. control	Test date
Smith, Mary		1,341	20 September 2009
Code	Substance (in order of reaction)	Stimulation Index	Comments
PWM	Pokeweed	124	Positive control
1 Ni	Nickel I	12.3	Strongly positive
	Nickel II	10.4	Strongly positive
2 MeHg	Methylmercury I	5.0	Positive

Positive control
Pokeweed is a substance that all white blood cells react to, used here as a safety check

Substance name & concentration
Substances are tested in at least two concentrations if there are enough blood cells. So 'Inorganic Mercury I' is a higher concentration than 'Inorganic Mercury II'

Stimulation Index
As explained above



Test overview	The results: Strongly positive to Nickel, Inorganic Mercury and Positive to Phenylmercury and Weakly positive to Methylmercury. The section below gives a brief description of the substances the blood was tested against and possible sources of exposure. Please note that MELISA detects the body's reaction to various substances, not the levels found in the body.
1. Aluminium Negative Highest SI reading: 0.8	Aluminium is present at low levels in food (coloring agent E173) and drinking water. It is used as an adjuvant in vaccines. It has not been conclusively linked with health defects, although controversy remains over its role in Alzheimer's disease. Exposure can be reduced by switching to aluminium-free deodorants, avoiding water treated with aluminium salts, canned food, processed cheese and cakes (which may contain moderate amounts of aluminium in the processing stage). Aluminium can also be present in soy-based infant formulas, cosmetics and pharmaceuticals such as antacids, buffered aspirin and intravenous fluids.
2. Beryllium Negative Highest SI reading: 1	Beryllium is used in dental materials such as gold alloys. The average cigarette contains 0.6 micrograms of beryllium. It may also be ingested through contaminated water or foodstuffs. Beryllium has been found to cause lung and skin disease in up to 10% of exposed workers. Chronic Beryllium Disease is also caused by a hypersensitive reaction, experienced by 2% of workers, and can take 30 years to show effect. At risk are workers in dental labs, miners, alloy makers, ceramics workers, jewellers and electrical factory workers. Its uses include production of brass alloys, glass, personal computers and x-ray tubes. Beryllium is cancerogenic in experimental animals.
3. Cadmium Negative Highest SI reading: 1.1	Smokers are exposed to an estimated 1.7 micrograms of cadmium in each cigarette; those who passively inhale such smoke are also vulnerable. Cadmium is a very common allergen, and is used in some gold restorations, copper amalgam and root fillings - specifically in a dental substance named Guttapercha. It is used in pigments for some cosmetics (red and yellow). It is also an additive in Teflon, used in cooking plans. In 1992, the World Health Organisation (WHO) established a tolerable weekly cadmium intake of 500 micrograms. But for those who are hypersensitive, the smallest amounts can be harmful.
4. Chromium Negative Highest SI reading: 0.5	Chromium is found in cigarettes. The US government Agency for Toxic Substances estimates cigarettes contain a concentration of 0.24 to 14.6 mg per kg. Metal joint prostheses made of chromium alloys are widely used in clinical orthopedics. Chromium is used in paint pigments (red, yellow, orange, and green), chrome plating, leather tanning, and wood treatment. It's also used in jewellery, electroplating, dyes, wood preservation substances, welding, tattooing, dental materials and cement. Environmental exposure is mainly due to nearby chemical plants, or road dust due to catalytic converter erosion.
5. Copper Negative Highest SI reading: 0.7	Copper is a regular component of silver amalgam fillings, composing between 3% and 6% of the compound. "Copper amalgam" contains around 30% copper and always contains impurities of nickel. High levels of copper may come from fertilizers, pesticides, septic systems, animal feedlots, industrial waste, and food processing waste. Copper may occur in drinking water either from contaminated well water or corroded copper pipes.
6. Ethylmercury Negative Highest SI reading: 1	Ethylmercury is a form of organic mercury. It is used in Thimerosal, a controversial substance used as a preservative in vaccines, eye drops and nasal sprays. Highly toxic in its own right, it is administered frequently to infants in countries such as the UK, where it is in the triple Diphtheria, Typhoid and Pertussis (whooping cough) vaccine. The DTP jab used in the UK, for example, has enough thimerosal to deliver 25 micrograms of ethyl mercury in every shot of vaccine. It is also present in many flu vaccinations

7. Gallium

Negative

Highest SI reading:
1.9

Gallium alloys have been developed as an alternative to mercury-based amalgam in dental restorations. But the metal has been found less durable and its effects remains controversial. A three-year study published in the British Dental Journal in 2005 found the record of Gallium restorations to be "catastrophic" leading to fractured tooth structure in 60% of cases. As a result of this study, the manufacturer of Galloy (a Gallium-based dental restoration) withdrew the product from the market. But it remains in use around the world, leaving affected patients highly vulnerable to chronic exposure.

8. Indium

Negative

Highest SI reading:
0.7

Indium is one of the metals used in the alloy powder that is mixed with mercury to make dental amalgam. It is highly toxic, and its other uses are commercial. It is used in LCD-displays, batteries and electronics (solders). It can also be found through solid waste and residuals from waste incineration. Indium is used in the manufacture of low-melting alloys. It can also be plated onto metals and evaporated onto glass - making a mirror which is as good as those made with silver, but with higher resistance to corrosion.

9. Inorganic Mercury

Strongly positive

Highest SI reading:
23.8

Inorganic mercury, or "metallic mercury", is a frequent source of metal allergy. Although extremely toxic in its own right, it makes 50% of dental amalgam fillings. Dental authorities accept that mercury vapour constantly evaporates from the fillings, but argue this is below a safe limit. However, for hypersensitive patients, there is no safe limit. Replacing amalgam fillings to ceramic substances has delivered radical improvements in patients who tested MELISA-positive for mercury. In the body, bacteria can transform inorganic mercury into the organic form methylmercury.

10. Iridium

Negative

Highest SI reading:
1

Small amounts of iridium may be found in dental inlays and bridges. The metal is mixed in different ratios with metals such as palladium, platinum, mercury and silver to produce a certain alloy such as a gold alloy. The metal is otherwise used in platinum/iridium-alloys in jewellery as it hardens the platinum, in sparkplugs (MG-F), making crucibles and apparatus for use at high temperatures, electrical contacts, it forms an alloy with osmium used for tipping pens and compass bearings, electronics and catalysts.

11. Lead

Negative

Highest SI reading:
1

Lead is a highly toxic and remains the no.1 official cause of workplace illness. It is in cigarettes and can still be found in houses. It can be found in water (especially from lead pipes), paint (especially manufactured before 1978), cosmetics (lipstick), old root-fillings, vegetables grown in contaminated soil, leaded petrol and car fumes, old painted toys and furniture, food and liquids stored in lead crystal or lead-glazed pottery or porcelain, and hobbies that use lead, such as making pottery, stained glass, or refinishing furniture. Lead is also used in the manufacture of batteries, metal products, paints, and ceramic glazes.

12. Methylmercury

Weakly Positive

Highest SI reading:
2

Methylmercury is found naturally in fish, which is why doctors advise pregnant women to avoid excessive amounts of fish to avoid exposing the baby. Infants and children are also at high risk from methylmercury-contaminated fish and breast milk contaminated by the mother. Like all forms of mercury, it is exceptionally toxic. It survives up the food chain, so the large fish at the top of the food chain such as shark, swordfish, and large mouth bass have the highest concentrations. It is distributed evenly across fish, and is not affected by cooking. This form of mercury is also found in contaminated soil and grain. Bacteria in the body can transform inorganic mercury into methylmercury.

13. Nickel

Strongly positive

Highest SI reading:
8.5

Nickel triggers more hypersensitive reactions than any other metal – up to 15% of the population suffer from some form of nickel allergy, mostly women. Nickel is exceptionally common: in cigarettes, jewellery, buttons and in coins (including the Euro). It may be found in dental restorations, prostheses (hip, knee, cochlear and cardiac implants), colour pigments, cosmetics, stainless steel cutlery, razors and pots. Even hard cleaning of kitchenware has been shown to release nickel in washing-up water. Nickel can pollute drinking water near factories which use it. Nutritionists have developed low-nickel diets, which cuts out certain foods (eg. nuts, beans, pulses, chocolate, oats).

14. Palladium

Palladium is found in dental crowns, bridges and root pins - which is, by far, the most common form of exposure. New evidence points to palladium exposure through razors

Negative
Highest SI reading:
0.9

and electric shavers, where the metal contains palladium. It is also found in car exhaust and as pollution from spinning- and weaving mills. Palladium is mixed with gold to make "white gold" for jewellery.

15. Phenylmercury

Positive
Highest SI reading:
2.4

Phenyl mercury is the organic mercury most commonly found in dental root fillings. While it has been phased out in many countries, it is also used as a preservative in eye drops and nose drops. It is less toxic than methylmercury and ethylmercury, because it is rapidly metabolised. Phenylmercury is used to control the growth of fungus in some interior latex paints manufactured before 1991, some exterior and oil base paints, some caulks, some eye-area cosmetics, toiletries, and other products. When these products are used, mercury metal vapour gets into the air and can be inhaled.

16. Platinum

Negative
Highest SI reading:
1.8

Since platinum started being used in catalytic converters for cars, the environmental exposure of this rare metal has increased significantly. However, the main source of platinum is its use in dental fillings, which studies show, leads to 10 times as much exposure as from traffic. The condition known as Platinum Salt Sensitivity is eight times more prevalent in smokers. The amount in drinking water averages 100pg/litre, but in some areas drinking water has contained dangerously high levels.

17. Silver

Negative
Highest SI reading:
0.6

Silver is frequently used in dentistry, and is often part of a mercury-based amalgam compound. It is also found in jewellery and even food coloring (E174). Water filters often use a form of silver to kill bacteria, so silver nitrate can be found in drinking water filtered at home. Many women know they are allergic to silver, and avoid wearing silver jewellery against their skin. But a risk remains if silver is inside the mouth, as part of dental restoration, a risk which MELISA® can detect. One side-effect of chronic silver exposure is "argyria", where the skin turns grey.

18. Thimerosal

Negative
Highest SI reading:
0.5

Thimerosal is one of the most controversial substances in modern medicine. Its main component is ethyl mercury (49.6% by weight), yet it is still used as a preservative in many child vaccines, flu vaccines and other health substances such as eye drops and contact lens solution. It is slowly being withdrawn from vaccines in some countries. It is the subject of a \$3 billion lawsuit in the US filed by parents of autistic children who believe it to be responsible for neurologically harming their child. Its use is defended on the ground that the mercury amount is too small to pose danger. But to those who are hypersensitive, even trace amounts can be dangerous.

19. Tin

Negative
Highest SI reading:
1.3

Tin is an everyday metal, mainly found as a component in amalgam fillings and gold alloys. It is found naturally in food in amounts of 0.1–1 parts per million (ppm), and especially in food or juice from tin containers. Canned food from so-called "lacquered" cans contains less than 25 ppm of tin since the lacquer prevents the food from reacting with the tin. But food from unlacquered cans contains up to 100 ppm of tin, through normal reaction with the food. The tin content of canned food can be increased when the food is stored in open cans for a long time.

20. Titanium dioxide

Negative
Highest SI reading:
0.9

Titanium dioxide is used as a whitening agent in cosmetics and toothpastes, in sunscreen agents, paint, plastic carrier bags and jewellery. Orthopaedic implants are often made of a titanium alloy, and dental implants made from titanium are frequently used. It can also be used for colour in some dental cements, composites and root fillings. Finally, titanium dioxide can be found in some candy such as Skittles and M&Ms under the code E171.

Testing performed at
Invitalab
Hammfelsdamm 6
414 60 Neuss
Germany