Melisa-LTT-Test

MELISA® is a simple blood test which can separate those individuals which may suffer side-effects from metal exposure and those that will not. The test will also tell the patient which metals the body tolerates and which it doesn't.

Typical symptoms of metal allergy are chronic fatigue and inflammation in various body parts. A sign of nickel allergy is when the skin gets red or itches upon contact with nickel-containing items such as watches, jeans buttons and cheap jewelry. Another sign is flu-like symptoms one or two days after a visit to the dentist whose done work with dental metal fillings.

It is important to differentiate between metal allergy and metal toxicity. MELISA® does not measure the levels of metals in the body; it measures whether the patient is allergic to metals. For example, hair samples may show levels of mercury or other substances which are below the official "safe limit" – but the patient can still be allergic. For allergic individuals, there is no such thing as a "safe limit". Even trace amounts of a substance pose danger if the substance triggers an allergic reaction.

White blood cells (lymphocytes) from whole blood are isolated and tested against allergens chosen accordingly to the patients anamnesis, dental and occupational history. The blood is incubated for five days and the lymphocyte reaction is measured by two separate technologies: one based on the uptake of radioisotope by dividing lymphocytes; the other by evaluation by microscopy. The level of reactivity is measured as a Stimulation Index (SI). A value over 3 indicates a positive reaction to a given allergen.

MELISA® test procedure:
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Sending Blood

Arrange Courier Before Drawing Blood
Optimally, blood should arrive within 48 hours after being drawn. Laboratories often find it most convenient to arrange the courier before drawing the blood, so it can be sent as soon as possible.

MELISA® laboratories need 20-40 ml of blood depending on the number of metals tested. The blood has to be drawn into special tubes containing sodium citrate (anti-coagulant). The patient should not be taking any immuno suppressive medication as this may affect the test results. Examples of such medication are steroids, allergy medicine, anti-inflammatory medicine, painkillers etc.

Send the Right Amount of Blood
MELISA® needs at least 3.6ml of blood for every component of metal tested

- For up to 5 METALS, send 18ml of blood. This means 4 x 4.5ml tubes or 2 x 9 ml tubes.
- For 5 to 10 METALS, send 36ml of blood. This means 8 x 4.5ml tubes or 4 x 9 ml tubes.
- For 10 to 15 METALS, send 54ml of blood. This means 12 x 4.5ml tubes or 6 x 9 ml tubes.
- For 15 to 20 METALS, send 72ml of blood. This means 16 x 4.5ml tubes or 8 x 9 ml tubes.

If you are testing children, fewer tubes are needed because children have a denser lymphocyte count. Please contact us for more details.

Use Citrate Tubes
MELISA® blood must be sent in a "citrate tube". This is a Becton-Dickinson or Greiner vacutainer tube with sodium citrate, sterile interior and blue lid. They can be provided from the MELISA® Medica Foundation on request.

Do Not Centriguge, Do Not Chill
The blood will be centrifuged on arrival at the lab. It must be sent a room temperature; chilled blood cannot be used for MELISA®.

Mark The Envelope Correctly
Put the tubes in a small box. Include enough padding to make sure they will not break. On the parcel, label two instructions. "Keep at room temperature - do not chill". Also indicate that the parcel should be delivered immediately ("Urgent delivery").