

External ID

| Test                                             | Result | Unit | Standard Range |                                                                                      |              |
|--------------------------------------------------|--------|------|----------------|--------------------------------------------------------------------------------------|--------------|
| <b>Orthomolecular and Mitochondrial Medicine</b> |        |      |                |                                                                                      |              |
| <b>Hair mineral analysis (hair of head)</b>      |        |      |                |                                                                                      |              |
| <b>Toxic Elements</b>                            |        |      |                |                                                                                      |              |
| Aluminum                                         | 16,3   | ppm  | < 15,3         |    | HA<br>*CP-MS |
| Antimony                                         | 0,107  | ppm  | < 0,052        |    | HA<br>*CP-MS |
| Arsenic                                          | 0,07   | ppm  | < 0,048        |    | HA<br>*CP-MS |
| Beryllium                                        | <0,001 | ppm  | < 0,0014       |    | HA<br>*CP-MS |
| Bismuth                                          | <0,010 | ppm  | < 0,165        |    | HA<br>*CP-MS |
| Lead                                             | 0,97   | ppm  | < 1,88         |    | HA<br>*CP-MS |
| Cadmium                                          | 0,02   | ppm  | < 0,054        |    | HA<br>*CP-MS |
| Gold                                             | <0,010 | ppm  | < 0,062        |   | HA<br>*CP-MS |
| Nickel                                           | 0,09   | ppm  | < 0,82         |  | HA<br>*CP-MS |
| Palladium                                        | 0,0011 | ppm  | < 0,0151       |  | HA<br>*CP-MS |
| Platinum                                         | 0,0013 | ppm  | < 0,0015       |  | HA<br>*CP-MS |
| Mercury                                          | 0,49   | ppm  | < 0,95         |  | HA<br>*CP-MS |
| Silver                                           | 0,02   | ppm  | < 1,03         |  | HA<br>*CP-MS |
| Thallium                                         | <0,001 | ppm  | < 0,0024       |  | HA<br>*CP-MS |
| Titanium                                         | 6,40   | ppm  | < 11,5         |  | HA<br>*CP-MS |
| Uranium                                          | 0,010  | ppm  | < 0,149        |  | HA<br>*CP-MS |
| Tin                                              | 0,13   | ppm  | < 1,18         |  | HA<br>*CP-MS |
| Zirconium                                        | 0,10   | ppm  | < 0,33         |  | HA<br>*CP-MS |
| Gadolinium                                       | 0,0012 | ppm  | < 0,0064       |  | HA<br>*CP-MS |
| <b>Minerals / Trace Elements</b>                 |        |      |                |                                                                                      |              |
| Calcium                                          | 499    | ppm  | 140 - 6000     |  | HA<br>*CP-MS |
| Magnesium                                        | 44,4   | ppm  | 10,2 - 378,5   |  | HA<br>*CP-MS |
| Phosphorus                                       | 146    | ppm  | 101 - 189      |  | HA<br>*CP-MS |
| Zinc                                             | 185    | ppm  | 93 - 275       |  | HA<br>*CP-MS |
| Chromium                                         | 0,109  | ppm  | 0,01 - 0,295   |  | HA<br>*CP-MS |
| Manganese                                        | 0,65   | ppm  | 0,023 - 1,011  |  | HA<br>*CP-MS |
| Molybdenum                                       | 0,048  | ppm  | < 0,045        |  | HA<br>*CP-MS |
| Copper                                           | 9,6    | ppm  | 8,1 - 79,1     |  | HA<br>*CP-MS |
| Iron                                             | 22,8   | ppm  | 3,9 - 17,6     |  | HA<br>*CP-MS |
| Selenium                                         | 46,79  | ppm  | 0,2 - 0,74     |  | HA<br>*CP-MS |
| Sodium                                           | 97,3   | ppm  | 3,9 - 479,6    |  | HA<br>*CP-MS |

| Name       | Date of Birth |      | Order ID       |                                                                                 |
|------------|---------------|------|----------------|---------------------------------------------------------------------------------|
| First Name | Sex           |      | Order Date     |                                                                                 |
| Test       | Result        | Unit | Standard Range |                                                                                 |
| Potassium  | 63,5          | ppm  | 1,4 - 253,3    | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Silicon    | 46,7          | ppm  | 5,2 - 304,9    | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Cobalt     | 0,01          | ppm  | < 0,55         | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Strontium  | 1,16          | ppm  | 0,18 - 20,94   | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Barium     | 1,07          | ppm  | 0,09 - 6,54    | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Vanadium   | 0,026         | ppm  | < 0,05         | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Boron      | 0,44          | ppm  | 0,07 - 1,77    | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Iodine     | 1,443         | ppm  | 0,03 - 0,827   | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |
| Lithium    | 0,012         | ppm  | < 0,037        | <div><div></div><div></div><div></div><div></div><div></div></div> HA<br>*CP-MS |

TYRIMO  
REZULTATŲ  
PAVYZDYS

Order ID  
Order Date  
Name  
First Name  
Date of Birth

## Hair mineral analysis

### Aluminium high

#### Possible causes:

- Natural exposure due to food; aluminium dissolved in acid rain enters into the food chain: e.g., root vegetables, salads, oranges, mandarins, wine, fruit juice, tea
- Baby food
- Drinking water (especially fluoridated)
- Food additives that contain aluminium (E 173, E 520, E 521, E 522, E 523, E 541, E 554, E 555, E 556, E 559) can occur in: baking powder, processed cheese, vegetables preserved in vinegar, anti-caking agents, cooking salt, etc.
- Vaccines, basic aluminium acetate, some antacids, medication used to combat diarrhoea (kaolin /bolus) and oral and throat inflammation
- Body care products such as deodorants, sunscreen or toothpaste
- Smoking, tobacco and cannabis
- Storage and cooking of food in aluminium pots, cans or aluminium foil
- Industrial emissions due to the manufacture of aluminium, the textile industry, the manufacture of glass and porcelain

#### Measures:

- Recognition and elimination of possible sources of aluminium
- Mixture of bases for the regulation of the acid-base balance (aluminium is more easily taken up by the body in an acidic environment)
- Silicon compounds can reduce the absorption of aluminium from the gastrointestinal tract (e.g., silica, silicic acid, etc.)
- Administration of calcium, magnesium, zinc, vitamin C, vitamin B6 (displacement of aluminium)

### Antimony high

#### Possible causes:

- Soil and groundwater pollution close to shooting ranges
- Exposure to ammunition in sports gunmen
- PET bottles contain antimony as a plasticiser, substantially elevated antimony concentrations in mineral water, fruit juices and syrup in PET bottles
- Additive in pigments and in glass and porcelain production
- Environmental pollution due to wear on car tyres, brake discs, waste incineration plants
- Air pollution (fine dust, household dust)
- Consumption of tobacco
- Pollution in the workplace due to industrial emissions (lead storage batteries, catalysts)
- Fire-proofing agents for fire-proof colours, textiles, mattresses and toys
- Cosmetics and body-care products

- Medication against tropical diseases (e.g., bilharziosis, leishmaniasis)

**Measures:**

- Recognition and elimination of possible sources of antimony (exposure prophylaxis)
- Treatment with antioxidants
- Vitamin B1 inhibits the uptake of antimony
- For serious cases chelate therapy

**Arsenic high****Possible causes:**

- Tobacco and cigarette smoke
- Mineral water, drinking water (springs in some mountain valleys)
- Fish, seafood, meat, offal
- Pesticides (residues in fruit, vegetables and wine)
- Industrial emissions, car exhaust
- Metal processing, manufacture of glass
- Melting furnaces, coal combustion
- Colour pigments
- Wood treatment

**Measures:**

- Recognition and elimination of possible sources of arsenic (exposure prophylaxis)
- Administration of vitamin C, selenium, sulphur-containing amino acids (e.g. methionine and legumes), folic acid and vitamin B12
- For serious cases chelate therapy

With kind regards

Your Biovis-Diagnostik

**Attention:** The recommendations given are only advice based on the compiled findings and possible clinical information. They are exclusively addressed to the therapist/physician and are not intended for direct transfer to the patient. They cannot replace diagnosis and therapy of the treating therapist. The recommendations for therapy are a suggestion. The responsibility for the final selection/measure/dosage lies with the medical professional/therapist responsible for each individual case.