

# Functional Medicine Analysis of Your Report

Based on your **BioScan Spectro results**, we will analyze **minerals, heavy metals, vitamins, oxidative stress, detoxification, digestion, metabolism, and general well-being**, followed by targeted recommendations.

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## 1. Mineral Imbalances

### Deficiencies:

- **Magnesium (-24%)** → Essential for muscle function, stress response, and cardiovascular health.
- **Silicon (-43%)** → Important for **skin, hair, nails, and bone strength**.
- **Iodine (-25%)** → Affects **thyroid function and metabolism**.
- **Chromium (-14%)** → Influences **blood sugar regulation and insulin sensitivity**.
- **Manganese (-11%)** → Critical for **joint health and enzyme function**.
- **Vanadium (-12%)** → Supports **blood sugar balance**.
- **Molybdenum (-14%)** → Involved in **detox and enzymatic reactions**.
- **Lithium (-33%)** → Plays a role in **mood stability and cognitive function**.
- **Iron (-4%)** → Slightly low, could impact **energy levels and oxygen transport**.

### Excess:

- **Copper (+27%) & Zinc (+34%)** → Imbalanced ratio (Cu/Zn **+42%**) suggests possible **inflammatory stress or hormonal imbalance**.
- **Potassium (+13%) & Sodium (+5%)** → Elevated potassium may indicate **electrolyte imbalance or adrenal stress**.

### Recommendations:

- **Increase Magnesium Intake:** 400-600mg/day (**dark leafy greens, almonds, pumpkin seeds**).
  - **Support Thyroid with Iodine & Selenium:** Consume **seaweed, fish, eggs**.
  - **Silicon & Bone Health:** Eat **cucumbers, oats, bell peppers**.
  - **Monitor Copper/Zinc Balance:** Consider a **hair mineral analysis** to assess long-term imbalances.
  - **Iron Absorption:** If experiencing **fatigue**, check **ferritin levels** before supplementing.
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## 2. Heavy Metal Toxicity

### Elevated Levels:

- **Aluminium (60%)** → Neurotoxic, may be linked to **brain fog and oxidative stress**.
- **Silver (58%)** → Can impact **gut microbiome balance**.
- **Cadmium (46%) & Lead (49%)** → Linked to **oxidative stress and cardiovascular issues**.
- **Mercury (51%)** → Can interfere with **thyroid and nervous system function**.
- **Arsenic (24%), Beryllium (28%), Nickel (30%)** → Contribute to **cellular toxicity**.

### Recommendations:

- **Chelation Support:**
    - **Chlorella + Spirulina (3-5g/day)** → Binds heavy metals.
    - **Cilantro Extract (1-2 drops in water, daily)** → Natural metal detoxifier.
  - **Liver Support:**
    - **Milk Thistle (200-400mg/day)** → Regenerates liver cells.
    - **Glutathione (500-1000mg/day)** → Master detoxifier.
    - **Infrared Sauna (3-4x/week)** → Enhances detox via sweat.
  - **Reduce Exposure:** Avoid **aluminum cookware, processed foods, and unfiltered water**.
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## 3. Vitamin Levels

Your vitamin levels are **generally within range**, but some areas need improvement:

- **Vitamin D (49%)** → Low, impacting **immune function, energy, and bone health**.
- **Vitamin B6 (62%) & B12 (58%)** → Slightly low, may affect **energy and neurological function**.
- **Vitamin C (60%)** → Boost to **enhance detox and immunity**.

### Recommendations:

- **Vitamin D3 (5000 IU daily with K2)** → Take with **fat** (morning).
  - **B-Complex (Methylated B6, B9, B12)** → Supports **nervous system & detox**.
  - **Vitamin C (1000mg daily)** → Enhances **collagen production and immune function**.
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## 4. Oxidative Stress & Skin Aging

- **Oxidative Stress (27%)** → **Low (good)**.
- **Antioxidant Protection (51%)** → **Needs improvement**.

- **Skin Elasticity (33%) → Poor (collagen loss).**
- **Aging Condition (54%) → Needs improvement.**
- **Cellulite Indicators:**
  - **Aqueous (42.7%) → Linked to fluid retention.**
  - **Fibrous (32.5%) → Stiff connective tissue.**

**Recommendations:**

- **Collagen (Type I & III, 5g daily) → Supports skin, joints, and tissue repair.**
  - **Vitamin C + Hyaluronic Acid → Improves skin hydration and elasticity.**
  - **Hydration & Lymphatic Drainage → Dry brushing, sauna, rebounding.**
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## 5. Detox & Metabolic Health

- **Detox Score (50%) → Needs improvement.**
- **Overall Intoxication (70%) → High toxic burden.**
- **Metabolic Overload (58%) → Strain on liver/kidneys.**
- **Glycemic Balance (40%) → Acceptable.**

**Recommendations:**

- **Liver Detox Protocol:**
    - **Milk Thistle (400mg daily) → Enhances liver repair.**
    - **Bitter Foods (dandelion, arugula, lemon water).**
  - **Fiber-Rich Diet (25-30g/day) → Supports toxin elimination.**
  - **Infrared Sauna (3-4x/week) → Sweat out heavy metals.**
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## 6. Joint & Cardiovascular Health

- **Flexibility (50%) → Needs improvement.**
- **Cardiovascular (67%) → Good.**
- **Acid-Base Balance (41%) → Needs correction.**

**Recommendations:**

- **Joint Health:**
  - **Collagen + MSM (500mg/day) → Lubricates joints.**
  - **Turmeric + Black Pepper (500mg/day) → Reduces inflammation.**
- **Heart Health:**

- **CoQ10 (100mg/day)** → Mitochondrial function.
  - **Magnesium (400mg/day)** → Improves circulation.
  - **Nitrate-rich foods (beets, spinach, celery).**
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## 7. Mental & Hormonal Health

- **Cognitive Function (52%)** → Acceptable.
- **Emotional Balance (43%)** → Needs support.
- **Hormonal Balance (46%)** → Needs correction.
- **Nervous System (76%)** → Good.

### Recommendations:

- **Brain Support:**
  - **Omega-3s (DHA/EPA, 2000mg/day)** → Brain & mood balance.
  - **Lion's Mane Mushroom (1000mg/day)** → Cognitive enhancement.
- **Hormone Optimization:**
  - **Adaptogens (Ashwagandha, Rhodiola - 500mg/day)** → Balance stress & energy.