Lifestyle changes to resolve MetS

**Insulin resistance - a hallmark of metabolic syndrome**

- Eat real food!
- Avoid industrial seed oils (canola, safflower sunflower...)
- Avoid processed grains, refined sugars and carbs.
- Get rid of sugared beverages.
- Exercise and stay active. Exercise increases mitochondria, this in turn improves insulin sensitivity.
- Implement intermittent fasting.
- Optimize your gut microbiome - eat fermented foods, consider taking a probiotic; avoid agricultural chemicals, antibiotics and antibacterial soaps, chlorinated water.
- Normalize your vitamin D levels (40-60 ng/ml) which influences insulin secretion and sensitivity. Vitamin D deficiency compromises the conversion of proinsulin to insulin.
- Get 6-8 hours of quality sleep per night.

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**MetS criteria (at least 3/5)**

- Fasting glucose ≥100 mg/dL
- Blood pressure ≥130/85
- Triacylglycerides ≥150
- HDL-C: M < 40, F < 50 mg/dL
- Waist: M ≥40” F ≥35”

**Meeting MetS criteria is a risk for**

- Diabetes Mellitus
- Coronary heart disease, heart failure, atrial fibrillation
- Ischemic stroke
- Nonalcoholic fatty liver disease

**What causes MetS**

- High calorie low-fiber food
- Inactivity, sedentary lifestyle
- Obesity and lipid toxicity
- Gut microbial imbalance
- Disrupted circadian rhythm
- Chronic inflammation
- Oxidative stress and glucose toxicity

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