

Insulin Resistance Supplement Considerations



Vitamin D3 & K2

Low vitamin D levels are associated with insulin resistance and metabolic syndrome. Vitamin D improves insulin sensitivity and supports pancreatic function, reducing blood sugar fluctuations.¹



Magnesium Citrate

Magnesium is essential for glucose metabolism and insulin action. Deficiency is common in those with insulin resistance and is linked to increased blood sugar and inflammation. Supplementing can improve insulin sensitivity.²



Vegan Omega 3

Omega 3s help reduce inflammation, improve lipid profiles, and enhance insulin sensitivity. They lower triglycerides and reduce the risk of metabolic complications.³



GlucoBalance®

Cinnamon has been shown to lower fasting blood glucose, improve insulin sensitivity and reduce post-meal blood sugar spikes. ALA is a powerful antioxidant that enhances glucose uptake in cells, reduces oxidative stress and improves insulin function. Chromium helps regulate blood sugar by enhancing insulin function. It supports glucose metabolism and reduces sugar cravings.^{4,5}

Dietary Considerations

+ Consume whole, unprocessed foods

Whole foods help stabilise blood sugar and reduce insulin spikes. Processed foods often contain hidden sugars and unhealthy fats that worsen insulin resistance.⁶

+ Follow a low-glycaemic diet

Low-glycaemic foods like vegetables, legumes, and whole grains cause slower rises in blood sugar, reducing insulin spikes and improving metabolic health.

+ Increase fibre intake

Fibre slows glucose absorption, prevents blood sugar spikes, and feeds beneficial gut bacteria. Legumes, chia seeds, flaxseeds and non-starchy vegetables should be prioritised.⁷

+ Reduce sugar and refined carbohydrates

Sugar and refined carbs cause rapid blood sugar spikes, worsening insulin resistance. Avoid white bread, pastries, fizzy drinks and processed snacks.

+ Incorporate healthy fats

Healthy fats like avocados, nuts, seeds and olive oil help to regulate blood sugar levels and improve insulin sensitivity. Avoid trans fats and refined vegetable oils.⁸

+ Consume enough protein

Protein slows digestion, stabilises blood sugar and supports muscle mass, which enhances insulin sensitivity. Choose a wide variety of plant-based proteins.⁹

+ Time-restricted eating (intermittent fasting)

Eating within a specific time window (e.g. 8-10 hours) improves insulin sensitivity, lowers fasting blood sugar and promotes metabolic flexibility.¹⁰

Lifestyle Considerations

+ Regular exercise

Both strength and resistance and endurance training increases cell sensitivity to insulin.

+ Manage stress

Chronic stress contributes towards insulin resistance, as cortisol puts glucose into the blood stream for utilisation. Actively reducing stress can improve insulin sensitivity. Try yoga, meditation and tai chi.

+ Sleep hygiene

Poor sleep is associated with insulin resistance and inadequate blood sugar control. Aim for a minimum of 8 hours each night.

+ Meal timing

Don't eat too close to bedtime as this can worsen insulin resistance. Try to eat larger meals earlier in the day.

+ Stay hydrated

Proper hydration is needed for proper blood glucose control. Drink at least 2 litres of water throughout the day.

+ Avoid alcohol and smoking

Both alcohol and smoking contribute to metabolic dysfunction, increasing insulin resistance and inflammation. Reducing or eliminating them is beneficial.

Testing Considerations

TEST	MARKER	RATIONALE
Fasting insulin & glucose	Fasting Insulin Fasting Blood Sugar	Elevated fasting insulin and glucose levels indicate insulin resistance. A fasting insulin level above 10 µU/mL suggests poor insulin sensitivity.
HOMA-IR (Homeostatic Model Assessment of Insulin Resistance)	Insulin resistance score	A calculated score that helps assess insulin sensitivity. A higher score suggests greater insulin resistance.
HbA1c (Glycated Haemoglobin)	Average blood sugar over 3 months	HbA1c provides an overview of long-term blood sugar control. Values above 5.7% suggest insulin resistance or prediabetes.
Lipid panel	Triglycerides, HDL, LDL	High triglycerides and low HDL cholesterol are common in insulin resistance and metabolic syndrome.
C-Peptide	Insulin production marker	Elevated C-peptide levels indicate excessive insulin production, a hallmark of insulin resistance.
Inflammatory markers	CRP IL-6	Chronic inflammation contributes to insulin resistance. Elevated C-reactive protein (CRP) and interleukin-6 (IL-6) suggest ongoing inflammation.
Vitamin D	25-Hydroxyvitamin D	Vitamin D deficiency is linked to insulin resistance and poor glucose metabolism. Maintaining adequate levels is crucial for improving insulin sensitivity.

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