

TABLE 11.1 Best Supplements for Polycystic Ovarian Syndrome, Blood Sugar, Insulin, and Leptin

Supplement	Suggested Dose	Key Benefits	Form and Timing	Clinical Notes
Myo-inositol and D-chiro-inositol (40:1 ratio)	2,000–4,000 mg/d myo plus 50–100 mg/d D-chiro	Improves insulin sensitivity, ovulatory function, and leptin signaling	Powder or capsules; take in 1–2 doses with or without meals.	Well-tolerated; especially effective in PCOS and insulin resistance with normal or high BMI.
Berberine	500 mg 2–3x/d	Reduces blood sugar, improves insulin sensitivity, lowers inflammation	Take with meals to blunt glucose spikes.	Comparable to metformin in studies; avoid in pregnancy or long-term without breaks.
Chromium (as picolinate or GTF)	200–600 mcg/d	Enhances insulin receptor sensitivity and glucose uptake	Take with meals.	Supports blood sugar balance; consider testing RBC chromium if long-term use.
ALA	300–600 mg/d	Improves glucose metabolism, supports mitochondrial health	Best taken 30–60 minutes before meals.	May reduce symptoms of peripheral insulin resistance and postmeal crashes.
Magnesium (glycinate or citrate)	300–400 mg/d	Supports insulin signaling, reduces cravings, calms the nervous system	Take in divided doses (morning and evening) or all at night.	Low magnesium is common in insulin-resistant states; magnesium also aids leptin sensitivity.
Vitamin D ₃	2,000–5,000 IU/d	Modulates insulin receptor function and immune balance	Take with fat-containing meal; pair with K ₂ .	Maintain 25(OH)D levels between 50 and 70 ng/ml; consider testing before dosing.
Ceylon cinnamon (<i>Cinnamomum verum</i>)	1,000–2,000 mg/d	Improves insulin sensitivity and postprandial glucose control	Capsule or powder; take before carbohydrate-heavy meals.	Do not confuse with cassia cinnamon, which may contain hepatotoxic coumarins.
Omega-3 fatty acids (EPA/DHA)	1,000–2,000 mg/d	Reduces systemic inflammation and supports metabolic flexibility	Triglyceride form preferred; take with meals.	Particularly helpful when metabolic dysfunction overlaps with inflammation or autoimmune markers.

ALA, alpha-lipoic acid; BMI, body mass index; DHA, docosahexaenoic acid; EPA, eicosapentaenoic acid; GTF, glucose tolerance factor, PCOS, polycystic ovary syndrome; RBC, red blood cell.