NATURAL MEDICINES · EVIDENCE IN PRACTICE EP. 110

Supplements in Diabetes: Your Top FAQs

About 40 million people in the US have diabetes — and many use supplements, for blood sugar or for completely different reasons. Here's what to know about which supplements can support glucose control, raise glucose levels, or interfere with readings.

WHY IT MATTERS

Why Diabetes?

According to the CDC, about **40 million people in the US** have diabetes (**~12%**), raising the risk for CV, kidney, and liver disease and eye and nerve damage.

Patients may take supplements for blood sugar — or for neuropathy, stress, sleep, or a cold.

Why Ask About Supplements?

OFTEN UNMENTIONED

Diabetes management is a balancing act. **A supplement can raise or lower glucose, or make a reading look wrong** — leading to treatment decisions without the full picture. Patients may not mention them if they don't see the connection.

Always Ask
Include things patients might not consider supplements, like cold remedies.

GLUCOSE CONTROL & HYPOGLYCEMIA RISK

FAQ 1: Supplements that may support Glycemic Control

NOT A SUBSTITUTE

Berberine 500 mg 2–3× daily for 2–4 months reduced A1c, fasting, and postprandial glucose in type 2 diabetes — possibly similar to metformin 500 mg 2–3× daily. Added to oral hypoglycemics: fasting glucose ↓ ~15 mg/dL, postprandial ↓ ~20 mg/dL, A1c ↓ 0.7%.

Fenugreek: fasting glucose ↓ ~21 mg/dL and A1c ↓ ~1% vs. controls.

ADA 2026 Standards of Care
Supplements aren't generally recommended for glycemic control without an underlying nutrient deficiency — the evidence isn't strong enough. Not a substitute for guideline-directed therapy.

FAQ 2: Hypoglycemia Risk

EASY TO MISS

The same glucose-lowering effect that makes **berberine** and **fenugreek** promising can raise hypoglycemia risk with diabetes medications.
Supplements taken for something else can too:

- **Alpha-lipoic acid** — diabetic neuropathy
- **Ashwagandha** and **melatonin** — stress and sleep
- **Ginger** — nausea

Ask Directly
Patients may not connect these to blood sugar changes. Most important with insulin or sulfonylureas, where hypoglycemia risk is already higher.

RAISING GLUCOSE & DISTORTING READINGS

FAQ 3: Niacin Raises Glucose Levels

DOSE DEPENDENT

Niacin (vitamin B3), used to lower triglycerides, can raise glucose at high doses — likely via insulin resistance or hepatic glucose release. Up to **35%** of patients with diabetes may need a higher diabetes medication dose.

- **4.5 g/day × 5 weeks:** avg. ↑16% glucose, ↑21% HbA1c
- **Up to 1.5 g/day:** minimal effects
- Rx niacin is usually 1–2 g/day; multivitamin or B-complex amounts are far lower

FAQ 4: Vitamin C & CGMs

FALSELY HIGH

Vitamin C can cause falsely elevated CGM readings — sensors detect glucose by electrical signal, and vitamin C adds to it. User guides may warn at intakes of **>500 mg** or **>1,000 mg** daily; one Emergen-C packet has 1,000 mg.

The Safety Issue
The false high looks real → the patient takes an unneeded correction dose of insulin → **real hypoglycemia**.

Vitamin C & CGMs — What To Do

1 · CHECK THE DEVICE
Interference varies by device. Libre 2+ and 3+ guides warn >1,000 mg/day may falsely raise readings and cause a missed severe low. Dexcom isn't affected by vitamin C (other substances interfere).

2 · ASK ABOUT VITAMIN C
Powders, gummies, effervescent tablets, and "immune support" blends all count — use climbs in cold and flu season.

3 · CONFIRM UNEXPECTED HIGHS
An unexpected high — especially one that doesn't match how the patient feels — warrants a finger stick.

LIGHTNING ROUND — QUICK ANSWERS

QUESTION	VERDICT	KEY NOTES
Metformin & B12	Check Level	Long-term metformin is associated with lower B12. ADA suggests considering periodic checks (about yearly is reasonable); add a supplement if low rather than automatically.
Gummy Vitamins	Check Labels	2–8 g sugar per serving; a few a day can approach a piece of frosted birthday cake (~30 g). Sugar-free types often use sugar alcohols or sweeteners that can still cause minor rises — suggest a tablet or capsule.
"Supports Healthy Blood Sugar"	Not Proof	A structure/function claim: no FDA approval needed, but the label must say FDA hasn't evaluated it. Supplements can't legally claim to treat diabetes — check the evidence before relying on benefit.
Chromium	Possibly Effective	Oral chromium is rated possibly effective in diabetes, especially at doses >200 mcg daily and in poorly controlled diabetes.
Cassia Cinnamon	Insufficient	Mixed: one meta-analysis lowered fasting glucose ~25 mg/dL, but a more recent cassia-only analysis found no benefit; A1c mixed. Studies were small and varied widely.

Check Evidence, Safety & Interactions

Use Effectiveness by Condition to see which supplements have real evidence for diabetes, and review each monograph's adverse effects, safety, and interactions with conditions.
Effectiveness by Condition · Interaction Checker

Practice Pearls

- **Ask about everything.** Include supplements taken for neuropathy, stress, sleep, nausea, or a cold.
- **Prioritize insulin and sulfonylurea patients.** Their hypoglycemia risk is already higher.
- **Ask "how much?"** For niacin, the dose determines the concern.

Key Patient Takeaways

- **Tell your care team about every supplement.** Even ones for nerve pain, stress, sleep, nausea, or colds can change blood sugar or distort a reading.
- **Glucose-lowering supplements can add to your medication.** That raises hypoglycemia risk, especially with insulin or sulfonylureas.
- **High-dose niacin can raise blood sugar.** Tell your provider how much you take.
- **Vitamin C can make some CGM readings look falsely high.** Check your device's user guide; confirm an unexpected high with a finger stick.

Bottom Line: Berberine and fenugreek have evidence for lowering glucose and A1c, but that same effect — along with alpha-lipoic acid and ashwagandha — can raise hypoglycemia risk. High-dose niacin can raise glucose; vitamin C can falsely elevate some CGM readings. Check B12 in long-term metformin users, and don't trust a label claim over the evidence.