TOWARD HEALTH

BONE HEALTH PROTOCOL

A practical guide to nutrition, supplements and the foundations of stronger bones.



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Read the current protocol at toward.health

Bone health starts with a strong foundation: adequate protein, progressive resistance training, balance and fall-prevention work, vitamin D repletion, and enough calcium from food plus supplements. Supplements work best when these foundations are in place.

This guide brings together supplement doses, timing, and cautions to discuss with your clinician, with a calcium target tailored to most postmenopausal women. Your food intake, medications, kidney health, and lab results help determine your individual plan.

In the LIFTMOR randomized trial, supervised resistance and impact training improved bone mineral density in postmenopausal women with low bone mass.

Calcium citrate: supplement the gap

For most postmenopausal women, the target is **1,200 mg of elemental calcium per day in total from food and supplements**. Supplement only the amount needed to close the gap between your food intake and that target.

A randomized trial in women averaging 84 years of age found fewer hip fractures with combined calcium and vitamin D3 than with placebo.

Split supplements into doses of **300-600 mg of elemental calcium**. Calcium citrate can be taken with or without food; avoid taking it with a high-calcium food. For example, if food supplies about 600 mg per day, add 300 mg of elemental calcium twice daily.

Avoid excess calcium. Ask your clinician first if you have kidney stones, chronic kidney disease (CKD), high calcium levels, hyperparathyroidism, or sarcoidosis. Separate calcium from levothyroxine and certain antibiotics or minerals.

Calcium citrate product

Vitamin D3/K2: adjust to lab results

The linked Pure Encapsulations D3/K2 product provides **4,000 IU of vitamin D3 per capsule**. Titrate the dose to your lab results with your clinician.

Take it with a meal containing fat. Check your **25-OH vitamin D level** after starting or changing the dose, and continue lab monitoring as part of your plan.

Vitamin D3/K2 product

Vitamin K complex: keep intake consistent

A common range for vitamin K2 as MK-7 is **90-180 mcg per day**. The linked Thorne vitamin K complex supplies vitamin K1 1 mg, MK-4 5 mg, and MK-7 90 mcg.

Take vitamin K with a fat-containing meal and keep your intake consistent from day to day. If you use both the Pure D3/K2 and Thorne K products, your total MK-7 intake is about **190 mcg per day**.

If you take warfarin: Discuss vitamin K supplements, including combination D3/K2 products, with your medical team before starting them or changing your intake.

Vitamin K complex product

Magnesium glycinate: adjust to tolerance

The supplemental dose in this plan is **300-400 mg of elemental magnesium per day**. You can divide it throughout the day, with a larger dose before bed. Decrease the dose if you develop loose stools.

Use caution if you have chronic kidney disease. Separate magnesium from levothyroxine, bisphosphonates, iron, zinc, and certain antibiotics.

Magnesium glycinate product

Boron

The dose is **3 mg per day**, taken with a meal. Avoid high-dose boron unless supervised by your clinician.

Boron product

Vitamin C

250-500 mg per day is usually enough for collagen support. A dose of 1,000 mg per day is acceptable for many people but is not required.

Take vitamin C with food if it causes gastrointestinal upset. High doses can cause gastrointestinal symptoms and may be a concern for people with recurrent calcium oxalate kidney stones. Monitor labs with your clinician.

Product options: vitamin C supplement or vitamin C powder.

Collagen peptides

The dose in this plan is **10-20 g per day** for bone and tendon support. Take collagen peptides at any time, and consider pairing them with vitamin C and resistance or impact training.

You can mix collagen peptides into coffee, yogurt, or water.

Collagen peptides product

NAC: an optional addition

N-acetylcysteine (NAC) is **optional, at 600 mg per day**. Take it with or without food; taking it with food may help if it causes nausea.

Use caution with anticoagulants or antiplatelet medications, nitroglycerin, asthma sensitivity, or upcoming surgery. Get your clinician's approval in these situations.

NAC product

A practical daily schedule

Once you and your clinician have chosen the supplements that fit your plan, the following schedule can help organize them:

- **Daily with food:** vitamin D3/K2, vitamin K, boron, vitamin C, and NAC if using it. A fat-containing meal improves absorption of vitamins D and K. Keep vitamin K intake consistent.
- **Midday or dinner:** calcium citrate, if needed to reach your calcium target. Separate it from levothyroxine and certain antibiotics or minerals.
- **Morning and evening:** magnesium glycinate, adjusting the dose to bowel tolerance.
- **Any time:** collagen peptides, 10-20 g per day, mixed into coffee, yogurt, or water.

Related reading and video

- Watch Dr. Laura's Bone Health & Menopause video.
- A New Era for Menopausal Hormone Therapy.
- Exercise for Metabolic and Mental Health: Choosing the Right Training.
- Toward Health Supplement Guide.

Sources and linked resources

These links are retained from the source article. Product links and related reading are included for reference.

1. LIFTMOR randomized trial
2. randomized trial
3. Calcium citrate product
4. Vitamin D3/K2 product
5. Vitamin K complex product
6. Magnesium glycinate product
7. Boron product
8. vitamin C supplement
9. vitamin C powder
10. Collagen peptides product
11. NAC product
12. Watch Dr. Laura's Bone Health & Menopause video
13. A New Era for Menopausal Hormone Therapy
14. Exercise for Metabolic and Mental Health: Choosing the Right Training
15. Toward Health Supplement Guide

Safety notes

Discuss this supplement plan with your clinician, taking account of food intake, medications, kidney health and lab results.

If you take warfarin, discuss vitamin K supplements, including D3/K2 combination products, with your medical team before starting or changing your intake.

Keep the dose, timing, interaction and monitoring instructions beside each supplement in view when organizing your daily schedule.

Medical disclaimer

This protocol provides general education and does not replace individualized medical care. Treatment choices should reflect your symptoms, medical history, test results, medications and preferences. Study results do not guarantee an individual outcome.