

PROVIDER'S POCKET GUIDE TO SUPPLEMENTS

FAST FACTS

- Up to 86% of American adults take supplements. But one survey showed that just 25% did so because test results showed a specific deficiency.¹
- Half of the adults surveyed were taking supplements because their health care provider recommended them.¹
- Nearly 25% of Americans over 18 take supplements marketed to improve or preserve brain health.²

ABOUT SUPPLEMENTS

Talking with patients about supplements is a key part of integrative health and whole-person care. Today's patients can choose from a vast array of dietary supplements, from nutritional powders and gummy vitamins to cannabidiol (CBD) products and herbs derived from traditional Chinese medicine (TCM) or Ayurvedic (traditional Indian) medicine.

This pocket guide is a resource for the HOPE Note, which includes questions on supplements and diet.

MOST POPULAR SUPPLEMENTS

According to a survey by the National Center for Complementary and Integrative Health (NCCIH), the natural products most used by U.S. adults are:³

- Fish oil, omega-3 fatty acids and other fatty acids
- Glucosamine (with or without chondroitin)
- Probiotics and prebiotics
- Melatonin
- Coenzyme Q10
- Echinacea
- Cranberry extract (pills or capsules)
- Garlic supplements
- Ginseng
- Ginkgo biloba

The HOPE Note includes a simple question, "Do you take any herbs or supplements? If so, which ones and how much?" In addition, you may want to ask specifically about herbal teas, nutrition powders, cannabis derivatives, topical creams and patches, and any over-the-counter pharmacy products.

Strategies for practices

We offer three clinical strategies for addressing supplements in practice in an evidence-based manner. These are not exhaustive, but a starting point for practitioners who may already be using one or more of these strategies.

Recommending supplements for depletion

- Many drugs can deplete the body of nutrients it needs for optimal function. For example, patients who take anticonvulsants such as clonazepam, diazepam and lorazepam are likely to be deficient in calcium. They may need to take a supplement such as Caltrate.⁴ To avoid interfering with

medication absorption, the doses of calcium should be divided appropriately throughout the day. Other common drugs that can cause nutrient depletion are estradiol (Estrace), which can deplete the body of folic acid and magnesium, and famotidine (Pepcid), which can cause Vitamin B12 depletion. Guidelines are available that include signs and symptoms of nutrient depletion for monitoring purposes, as well as recommended doses.⁴

Monitoring patients who already take supplements

- Chances are good that many of your patients are already taking supplements, whether or not they discuss them with you. Once you do talk with patients about which supplements they

take, you can monitor them for interactions with prescription and over-the-counter drugs. For example, St. John's wort (*hypericum*), interacts with many medications, including but by no means limited to oral contraceptives, digoxin, HIV/AIDS medications, omeprazole, oxycodone and warfarin. Other patients to monitor for interactions include those taking garlic or CoQ10 as well as warfarin and those taking soy as well as MAOIs.⁵

Prescribing supplements as an alternative treatment

- You may also prescribe supplements as an alternative to conventional drug therapy. Patients with back pain may use a capsicum plaster or an ointment containing comfrey root extract to reduce their dose of non-steroidal anti-inflammatory medications such as ibuprofen. Caffeine can help relieve headache, and is more effective than placebo. Aromatherapy with lavender oils can help relieve symptoms of depression and insomnia.

What is the evidence?

There is good evidence that some supplements help specific conditions. Others do not help the condition for which they are advertised.⁶ Here is a brief summary.

- Most high-quality trials have not shown clear benefits of general vitamin supplements for prevention in healthy people or for people with chronic conditions.⁶
- Children should get their nutrients from food, although extra vitamin D is now recommended for breast fed infants.⁷
- For brain health, there is little good evidence that supplements help as we age.³ So far, only lifestyle changes have been shown to slow Alzheimer disease.⁸
- Vitamin and mineral supplements do not reduce the risk of death from heart disease and cancer, while high doses of supplemental calcium appeared to actually increase the risk of cancer death. The same study showed reduced risk of cardiovascular death for participants who got sufficient amounts of several vitamins and minerals from foods.⁸
- Probiotics should be selected for specific situations, such as digestive health or immune system support. Some probiotics have been studied and tested for those conditions, but others have not.⁹ Recent evidence indicates that taking specific probiotics can actually decrease the diversity of a person's microbiome compared to a high-fiber and vegetable diet, causing problems in immune function.¹⁰

There is strong evidence for supplementation in specific situations. These include:⁶

- Folic acid supplements for pregnant women
- Vitamin D and iron supplements for breastfed infants
- Vitamin B12, D, and calcium for adults aged 50 and older, although high intakes of vitamins B6 and B12 may be associated with hip fractures in women.
- Slow-release melatonin for children with autism¹²

Supplements for specific conditions

In addition to the above, supplements proven helpful for specific conditions include the following.

Post-bariatric surgery	Vitamin supplementation, including fat-soluble and B vitamins. Mineral supplementation, including iron, calcium, zinc, and copper. ⁶
Celiac, Crohn or another inflammatory bowel disease	B and D vitamins; iron, zinc, and magnesium ⁶
Chronic pain	Avocado-soybean oil, capsaicin, curcumin (in foods), ginger, glucosamine, melatonin, polyunsaturated fatty acids, vitamin D. ¹³
Osteoporosis	Calcium, vitamin D (with vitamin K), possibly magnesium, strontium (if deficient) and boron (if deficient) ⁶
Age-related macular degeneration ("dry" form)	AREDS formulation of vitamins and minerals ⁶
Pernicious anemia	Vitamin B12 ⁶
Iron deficiency anemia	Iron
Menopausal symptoms	Black cohosh, soy, red clover, St. John's wort, ginseng, flaxseed. ¹⁶⁻¹⁹
Stroke and cardiovascular disease (CVD) risk	Omega-3 fatty acids ²⁰

Finding quality supplements

Tips to share with your patients include:

- Look for products with the NSF International, USP or Consumer Laboratories seal.
- Check the U.S. Pharmacopoeia information on dietary supplements and food at <https://qualitymatters.usp.org/topics/dietary-supplements>.
- See the [Dietary and Herbal Supplements](#) guide at the National Center for Complementary and Alternative Medicine
- A subscription to the [Natural Medicines Comprehensive Database](#) may be of value to those who want detailed information and up-to-date evidence on supplements.

What about drug interactions?

Supplements can interact with blood thinners, corticosteroid medications, heart medications and more. A subscription to the [Natural Medicines Comprehensive Database](#) allows you to check for, not only the latest evidence on benefit and adverse effects but also interactions.

Integrating with pharmacy care

You may be tempted to leave the issue of interactions to the patient's pharmacist, an important member of the integrative health team. Unfortunately, a Chicago Tribune investigation revealed that pharmacists missed half of dangerous drug interactions – and this happened even when patients brought two prescriptions to the pharmacy at the same time.²¹ A pharmacist who does not know about or ask about supplements is unlikely to alert patients to interactions. You may need to work with a specific pharmacist, asking them to get training and provide services about supplement-drug interactions and use.

Integrating the pharmacy into whole person care ideally means that patients would share any supplement use with the pharmacist, remind them of other prescriptions and over-the-counter drugs they take, and discuss whether a new prescription may interact with what they are taking.

Are there precautions, side effects, or safety concerns my patients should be aware of?

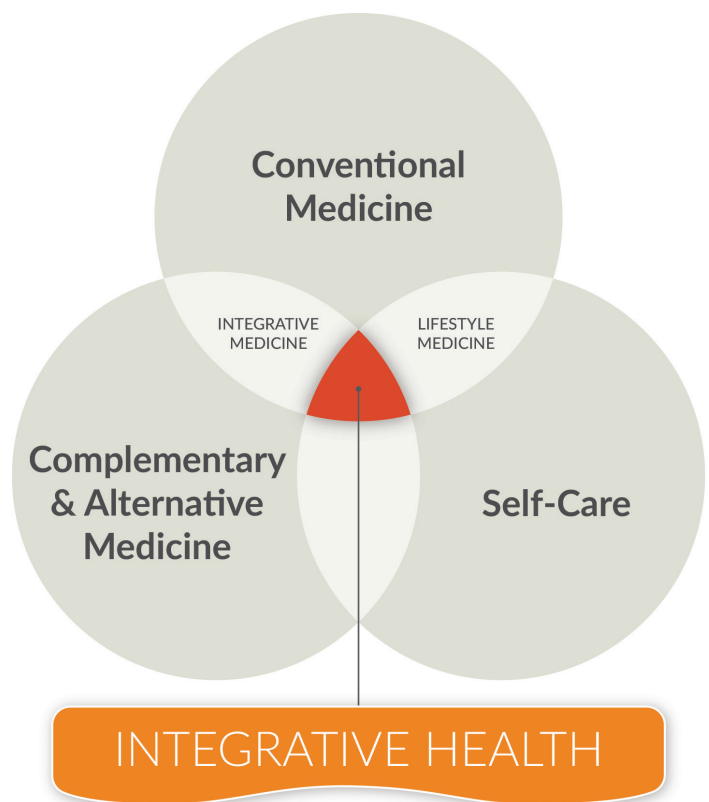
In addition to investigating individual supplements, you and your patients can check the [FDA Dietary Supplement Ingredient Advisory List](#) and sign up for alerts when new ingredients are added.

Questions to ask about supplements

- Are there any drugs my patient is on that depletes nutrients and should be supplemented?
- Are the supplements my patient is taking safe?
- Will a supplement interact adversely with my patient's medications?
- Does the supplement contain high-quality ingredients and no dangerous ingredients?
- Has the supplement been shown to work for what my patient takes it for?
- How will the supplement likely affect my patient's health conditions?
- Is the supplement worth the cost to my patient?
- Is a prescription formulation or a medication a better or safer choice for the money?

What is integrative health?

Integrative health is the pursuit of personal health and wellbeing foremost, while addressing disease as needed, with the support of a health team dedicated to all proven approaches – conventional, complementary and self-care.



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