

# Prescription for Danger? Drugs and Supplements

Most supplements are not likely to cause problems, but use caution

By [Sandra Gurvis](#)

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You go to the drug or health food store, purchase the necessary herbals or over-the-counter medications for whatever ails — a cold, headache or insomnia. And you probably never think that you might be offsetting the beneficial effects of your prescribed medications or accidentally overdosing on the same basic compound.

That's usually OK, according to Dr. Gary Asher, assistant professor at the University of North Carolina Family Medicine and director of Integrative Medicine Services.

“With a few major exceptions, most supplements don’t translate into causing problems” with drug interactions, Asher says.

But having minimal knowledge about drugs or supplements coupled with a lack of communication with your health care provider can be potentially disastrous. A drug clash or accidental overdose can range from mild stomach upset to the extreme “death by Tylenol.” Not to mention canceling out whatever good the prescription drug is supposed to do.

As defined by the [National Center for Complementary and Integrative Health \(NCCIH\)](#), a supplement is considered to be any substance containing vitamins, minerals, herbs, botanicals – including plants and all their components – amino acids, probiotics or their constituents.

## Side Effects of Supplements

Supplements, too, can result in dire consequences, although experts and studies differ as to their effects.

“Research is constantly underway and evolving” says Dr. Pieter Cohen, associate professor of medicine at the Cambridge Health Alliance at the Harvard Clinical and Translational Science Center. Experts agree, however, that most studies have been primarily anecdotal, with small groups or based upon extrapolation of information.

Still, some worrisome cases have been documented. One example was the [rejection of a transplanted heart](#) due to the interaction of the herbal supplement St. John’s Wort and the immunosuppressant ciclosporin.

“St. John’s Wort can tie up pathways to the liver, causing other medications to not work,” says Cohen, adding that “it’s pretty much the poster child for drug interactions.” Other negative herbal [reactions](#) may occur when taking medications for AIDS/HIV, cardiovascular or diabetic conditions, blood thinners, antibiotics and more.

“There is a lot of gray in this area,” adds Asher.

## Getting a Grip on Supplements

Part of the problem is that the supplements themselves are virtually unregulated, even though about [one in five Americans](#) reports mixing a prescription with a non-vitamin

dietary supplement. Christopher D'Adamo, assistant professor of family and community medicine at the University of Maryland School of Medicine and director of research, Center for Integrative Medicine, estimates that the proportion is probably closer to half of Americans.

Further [studies](#) note that of the 40 to 60 percent of adults with chronic disease use supplements.

The government has stepped into the supplement market... somewhat. Along with establishing the NCCIH as part of the National Institutes of Health in 1991, in 1994 the Dietary Supplement Health and Education Act (DSHEA) became law. "Manufacturers should be able to provide a certificate of analysis for their products, which includes verification of active components in addition to concentrations of heavy metals and other potential contaminants," states Asher.

Yet supplements "require no pre-marketing approval before they reach store shelves," cautions Cohen. In fact, "anything labeled as a dietary supplement is assumed to be safe until proven otherwise" and can only be removed from shelves after the Food and Drug Administration (FDA) has found them harmful or dangerous. (In contrast, new drugs are [presumed to be unsafe](#) until proven safe.)

A 2016 PBS *FRONTLINE* documentary, [Supplements and Safety](#), describes hidden dangers in supplements that stem in part from the lack of oversight by the FDA.

## Proceed with Caution

So the onus is on us, the consumers, to suss out potential interactions and exercise caution. And your doctor should help you.

"Medical schools need to teach more about dietary and herbal supplements," asserts D'Adamo, who speaks about integrative medicine and best practices to medical centers around the country.

Special training can also help physicians make informed decisions when conferring with patients. For example, says Asher, "many cancer patients use alternative medicines or supplements" to ease discomfort resulting from chemo and other treatments. Rather than the doctor giving them a blanket "no" because of unfamiliarity with the product, "he or she can instead offer alternatives and solutions" to maintain the effectiveness of the prescribed treatment.

And regardless of whether it's a prescription, OTC or supplement, drugs interact in certain ways, observes D'Adamo.

"They can be synergistic, in which they do the same thing," resulting in a possible accidental overdose, or antagonistic, "in which they cancel each other out and compromise the effectiveness" of the prescribed medicine. Still other interactions may interfere with the drug's efficacy due to changes in metabolism, absorption or excretions in the body.

And in fact, some drug interactions can be put to good use. D'Adamo cites judicious ingestion of probiotics a couple of hours before or after taking antibiotics to offset side effects such as diarrhea. He also says vitamin B12 can replace the loss of that nutrient from taking certain antacids.

"The point is to talk openly with your physician about exactly what you are taking," he says.

## 5 Supplements that May Mess with Your Meds

**St. John's Wort**. Physicians and pharmacists recommend always consulting with your doctor before taking this, even though it is said to help with depression. St. John's Wort may interfere with medications including certain antidepressants, allergy drugs (antihistamines), heart medications (digoxin), drugs that suppress the immune system (like cyclosporine and methotrexate) and many others.

**Goldenseal**. Most often used for the common cold, upper respiratory tract infections and skin irritations among other things, some 60 possible interactions have been documented including certain antipsychotic drugs. However, the biggest issues revolve around the fact that goldenseal can affect how the liver breaks down medications, which may either increase their effects or side effects. Asher recommends mostly avoiding it until further research has been done.

**Red yeast rice (RYR)** is said to lower cholesterol, improve blood circulation and improve digestion. Because it acts like cholesterol-lowering prescription statins, "it can amplify the effect of those drugs," says D'Adamo, possibly damaging the liver. Other negative interactions may include the risk of bleeding when used with blood thinners or even NSAIDs, among others.

**Coenzyme Q10** Found naturally in the body, this antioxidant helps convert food into energy. Some researchers believe it can help with heart conditions. However it may

interfere with the action of blood thinners and [some sources](#) say that it may increase the risk for a clot.

**Feverfew** Most often taken to prevent migraines, but also sometimes used for ailments ranging from psoriasis to dizziness to stomach upset, feverfew can increase the risk of bleeding especially for those with blood clot disorders or using blood thinners. It also may interfere with how quickly the liver breaks down certain medications.

## Websites for More Information

[Medscape drug interaction checker](#)

[Examine.com](#) —Used by consumers and physicians because of its extensive documentation of studies and research

[PubMed](#) Complete listing of studies and citations about various supplements

[WebMD interaction checker](#)

[University of Maryland Complementary and Alternative Medicine Guide](#)



By [Sandra Gurvis](#)

*Sandra Gurvis is the author of 16 books and hundreds of magazine articles. A freelance writer for more than 25 years, she has also written corporate profiles and technical articles for clients such as Ohio State University Wexner Medical Center, Ohio Health and Merrill Lynch.*

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