

Herbal supplements may cause dangerous drug interactions in orthopaedic surgery patients

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Complementary and alternative medical (CAM) treatments such as herbal supplements have become increasingly popular in the United States, especially among older patients and those with chronic pain. However, many of these products can have serious and potentially harmful side effects when combined with medications prescribed during and after surgery, according to a review article in the [Journal of the American Academy of Orthopaedic Surgeons](#) (*JAAOS*).

About 20 percent of prescription users also take an herbal supplement, and those rates are higher — studies suggest between 35 and 70 percent — among orthopaedic [patients](#) who are candidates for surgery.

"Herbal remedies are classified as dietary supplements, meaning they are exempt from the safety and efficacy regulations that the U.S. Food and Drug Administration (FDA) requires for prescription and over-the-counter medications," said David T. Rispler, MD, director of the Grand Rapids/Michigan State University Orthopedic Residency Program. "As a result, individual herbal remedies have not been thoroughly evaluated in large clinical trials, and little information is available on the interactions between drugs and herbs."

In addition, many herbal products are marketed as "natural" or "homeopathic," which may lead consumers to assume the products are safe, even when taken with prescription medicines, Dr. Rispler noted.

"[Herbal supplements](#) can have a negative impact on patients both before and following surgery, and may interact with conventional medicines used to manage chronic conditions."

"Traditional physician-patient communications, like intake interviews, often do not include the subject of alternative medical products. As a result, patients may fail to report that they are using them and continue to take them along with any prescribed medicines and before surgery, thinking the herbal products pose no risk," said Dr. Rispler.

Many of the most popular herbal supplements used today can have serious side effects when combined with prescription medicines. For example:

- Feverfew (used for migraine prevention), ginger, cranberry, St. John's Wort and ginseng can interact with the anti-clotting drug warfarin;
- Feverfew, ginger, and ginkgo can interact with aspirin;
- Garlic can interfere with anti-clotting medications and the immunosuppressant drug cyclosporine (prevents transplant rejection);
- Valerian (used as a sedative) can intensify anesthetics; and
- St. John's Wort can interact with immunosuppressive drugs and potentially lead to transplant rejection.

Herbal products marketed for osteoarthritis also can pose serious risks when combined with prescription medications. For example:

- Glucosamine, chondroitin and flavocoxid can affect clotting agents;
- Black cohosh can interact with the cancer drug tamoxifen; and
- Cat's claw can interact with clotting agents, blood pressure

medications and cyclosporine.

Most surgery-related side effects can be avoided by stopping the CAM product at least one to two weeks prior to surgery and during the postoperative period while prescription medications such as blood thinners or antibiotics are being used. The problem arises when physicians do not know that a patient is using a CAM product, Dr. Rispler said.

"One of the main reasons that patients do not disclose the use of a CAM product is that they may not believe it is important information to convey to the physician because they feel they are safe to use and all-natural," he said. "Patients may also decide not to report CAM product use if they are worried their physician may be prejudiced against the supplement's use, or believe their physician will not have an understanding of the supplement."

Although the use of herbal medicines should be monitored by patients' primary care physicians, Dr. Rispler said orthopaedic surgeons should have an understanding of the potential side effects of some of the most common CAM products used by their patients, and be able to guide them in suspending use prior to surgery.

To help ensure physicians are aware of the products their patients may be using, Dr. Rispler also recommends including CAM product-use questions on health/[medical](#) assessment forms to encourage patient disclosure.

"Physician-patient communication often does not include the use of CAM therapies, which results in underreporting of their use," he said. "To help avoid potential [side effects](#), orthopaedists should develop questionnaires that can be used prior to surgery to help determine if their patients are using CAM products." Alternatively, patients should also

report usage of any herbal products or other supplements they may be taking to all their physicians.

"By opening up a conversation on the use of herbal medications around the time of surgery and compiling a complete list of all prescribed and self-prescribed medications and supplements, patients and physicians may be able to work together to decrease the risk of complications that can occur during and following surgery," Dr. Rispler said.

More information: More information on understanding complementary and alternative medicine can be found at orthoinfo.aaos.org/topic.cfm?topic=A00283

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