

## Herbal Medications: Guidelines for Use Before Surgery

*A review of 8 common herbs leads to targeted recommendations for modifying their use by patients before undergoing surgery.*

In July 2001, the *Journal of the American Medical Association* published an important review of 8 common herbal medicines and potential safety concerns about their use before surgery.

Researchers at the University of Chicago evaluated the relevant research on echinacea, ephedra, garlic, ginkgo, ginseng, kava, St. John's Wort and valerian. Several cases were presented where certain herbs used *before* surgery led to unfavorable complications like bleeding, heart instability, low blood sugar or drug interactions.

Like traditional prescriptions and over-the-counter drugs, herbal medicines *are* powerful medicines and may require modification or discontinuation before an operation. For example, because aspirin is a known blood thinner, general pre-surgery recommendations include stopping aspirin at least one week before to lessen risk of bleeding. Certain herbs like garlic and ginkgo biloba also have blood-thinning properties, and therefore require discontinuation before surgery based on similar principles.

Based on a review of clinical studies on the herbs, the researchers made specific recommendations for each of the 8 herbal medications on when to discontinue use before surgery. Aimed at informing Western doctors about these herbs, this information is also useful to individuals taking herbal products to minimize risks associated with herb and other medication use near surgery.

Below is a table that reflects the functions, concerns and recommended schedule of discontinuing use of certain herbs before surgery. This table is adapted from the review article and modified to include the familiar product claims known by consumers.

<b>Herb</b> Product Claim:	<b>Relevant Drug Effect</b>	<b>Potential Concerns Around Surgery</b>	<b>Recommended Pre-surgery discontinuation</b>
Echinacea  "Boosts the immune system."	Stimulates Immunity (short term use)  Long-term use	Allergic reaction; May decrease effects of immune system suppressing drugs necessary for	Not enough data to make specific recommendation*

	may actually suppress immunity or lead to tolerance.	transplant and other operations; Long-term use may depress immune system	
Ephedra: <i>Ma huang</i> (also drugs containing ephedra)  "Appetite suppressant, promotes weight loss"	Increases heart rate and blood pressure	May increase risk of stroke, rapid or irregular heart beat and hypertension; May lead to life-threatening interaction with MAO inhibitors (antidepressant) medications.	At least 24 hours before surgery
Garlic: ajo  "Controls blood pressure, improves circulation, lowers cholesterol"	Thins blood by decreasing clotting (anticoagulant )	May increase risk of bleeding, especially if used in combination with other blood thinners.	At least 7 days before surgery
Ginkgo biloba  "Improves circulation, enhances memory"	Thins blood by decreasing clotting (anticoagulant )	May increase risk of bleeding, especially if used in combination with other blood thinners.	At least 36 hours before surgery
Ginseng: American, Asian, Chinese, Korean  "Heart tonic, improves exercise endurance, energy and mood booster, lowers blood sugar"	Lowers blood sugar; Thins blood	May cause low blood sugar reaction; May increase risk of bleeding; May decrease clotting effect of warfarin (Coumadin) if use in combination	At least 7 days before surgery
Kava  "Natural alternative to antianxiety/ antidepressant drugs, helps induce sleep and relaxation"	Sedates, may cause drowsiness	May increase the effect of anesthetics (extra sedation); Possible withdrawal symptoms when discontinuing use	At least 24 hours before surgery

<p>St. John's Wort</p> <p>"Natural way to alleviate depression, promotes emotional well-being"</p>	<p>Involved in neurotransmitter activity related to depression, anti-depressant</p>	<p>Activates enzymes to break down other drugs more quickly (making them less effective) including cyclosporine, warfarin, steroids, digoxin, and some hypertension medications</p>	<p>At least 5 days before surgery</p>
<p>Valerian</p> <p>"Promotes sleep, natural alternative to sleeping pills, helps with antianxiety"</p>	<p>Sedates, may cause drowsiness</p>	<p>May increase the effect of anesthetics (extra sedation); Possible withdrawal symptoms when discontinuing use</p>	<p>Not enough data to make specific recommendation*</p>

\* The American Society of Anesthesiologists suggest a general discontinuation of any herbal medicine at least 2 to 3 weeks before surgery, although the organization has not set official standards or guidelines.

It is always important to share all information about your use of over-the-counter, prescription, and herbal medications, along with any other nutritional supplements you may be taking with all members of your medical team. The researchers of the study stressed the importance of physicians' roles (and therefore, patients', as well) in communicating all information about any herbs, supplements or other medications a patient is taking to avoid potential complications during surgery. Your physician or surgeon should provide you with a list of items and timelines for discontinuation or modification of use prior to surgery.

Even something as familiar as aspirin is not completely risk free. While it can protect the heart against heart attack and stroke through its anticlotting activity, it could create health risks if you are already on other anticlotting drugs or have other risk factors for bleeding. Therefore, it is wise to always err on the side of caution in sharing any information you can about your use of medications with your health care team.

Traditional medications, especially anticoagulants (blood thinners) like aspirin, warfarin (Coumadin), Clopidogrel (Plavix), Dipyridamole (Persantine), and others, often require discontinuation of use prior to surgery. Different timeframes are established based on the how long a drug or herb is known to remain in the body after taking a dose. Therefore, anything that may interfere or cause potential complications or increased risks during surgery should be evaluated.

Whether your medication is herbal, prescription or a familiar over-the-counter product, none are free of potential concerns or side effects especially around the time of a surgery and when used in combination with other drugs or herbal products.

Using herbal medicines under the care of a competent and knowledgeable physician can be appropriate in promoting health, but it is important to provide information to prevent, recognize and treat potential problems associated with herbal or traditional medications – taken alone or in combination with other drugs.

*References:*

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