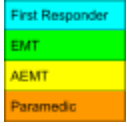


H-R6  
VITAMINS/HERBAL  
SUPPLEMENTS



**NOTE:** Poison Control may be contacted [1-800-222-1222] for **INFORMATION ONLY**. Treatment modalities must utilize these guidelines, or may be received through online Medical Control.

**Vitamins**

- No specific treatments
- Water-soluble vitamins (B's, C and folate) are generally very safe in overdose and usually cause minimal, if any, symptoms. Any unneeded (extra) water-soluble vitamins are excreted in the urine.
- Fat-soluble vitamins (A, D, E and K) accumulate in the body and typically cause subacute/chronic symptoms from continued overuse.

Substance	Notes
Vitamin A	<ul style="list-style-type: none"> <li>• Acute: red peeling rash (desquamation), headache, vomiting.</li> <li>• Chronic: blurred vision, dry skin/pruritus/abnormal pigmentation, hair loss, bone pain, liver toxicity, pseudotumor cerebri (increased ICP)</li> </ul>
Vitamin B1 (thiamine)	<ul style="list-style-type: none"> <li>• No toxicity observed</li> </ul>
Vitamin B2 (riboflavin)	<ul style="list-style-type: none"> <li>• No toxicity observed</li> </ul>
Vitamin B3 (niacin)	<ul style="list-style-type: none"> <li>• Acute: "niacin flush" (redness, burning, and itching of the skin)</li> <li>• Chronic: liver dysfunction</li> </ul>
Vitamin B6 (pyridoxine)	<ul style="list-style-type: none"> <li>• Subacute/chronic: peripheral neuropathy with unstable gait (ataxia), and loss of position and vibration sense</li> </ul>
Vitamin B12 (cyanocobalamin)	<ul style="list-style-type: none"> <li>• Ingestion: no toxicity observed</li> <li>• Large IV doses: erythema of skin; rare anaphylactoid reactions</li> </ul>
Vitamin C (ascorbate)	<ul style="list-style-type: none"> <li>• Chronic: kidney stones (controversial)</li> </ul>
Vitamin D	<ul style="list-style-type: none"> <li>• Subacute/chronic: <b>hypercalcemia</b> (weakness, bone pain, abdominal pain/nausea/constipation/anorexia, confusion)</li> </ul>
Vitamin E	<ul style="list-style-type: none"> <li>• Chronic: easy bruising/bleeding, nausea, headache, weakness/fatigue</li> </ul>
Folate	<ul style="list-style-type: none"> <li>• No toxicity observed</li> </ul>
Vitamin K	<ul style="list-style-type: none"> <li>• Acute: anaphylactoid reactions if given rapidly in the IV form</li> <li>• Interferes with warfarin resulting in subtherapeutic coagulation (i.e. treatment for warfarin overdose/hypercoagulable state)</li> </ul>

### Herbal Supplements

- Symptoms:
  - All may cause some degree of GI irritation, especially in acute overdose
  - Many cause neurologic (weakness/fatigue, headache, dizziness, etc.) or psychogenic symptoms (often abused for this purpose)
  - Some agents have specific liver, kidney, and cardiovascular toxicities
- No specific treatments

- Generally safe: **Chamomile, Chondroitin, Echinacea, Feverfew, Garlic, Ginkgo, Ginseng, Glucosamine, Kava, St. John's wort and Valerian**
- Some herbal preparations cause direct toxicity, but illness is **much more common from the contamination, misuse, overuse, or misidentification of the herbal preparation.**

### (Some) Potential Toxic Herbals

Substance	Notes
<b>Black Cohosh</b> <i>Actaea racemosa; Cimicifuga racemosa; baneberry, black snakeroot, bugwort, rattlesnake, squawroot</i>	<ul style="list-style-type: none"> <li>• CNS disturbances; bradycardia</li> </ul>
<b>Chaparral</b> (Creosote bush) <i>Larrea divaricata</i>	<ul style="list-style-type: none"> <li>• Hepatotoxic and nephrotoxic</li> </ul>
<b>Clove Oil</b>	<ul style="list-style-type: none"> <li>• Hepatotoxic</li> </ul>
<b>Comfrey</b> <i>Symphytum officinale; black root, blackwort, bruisewort, knitbone, salsify, slippery root, wallwort</i>	<ul style="list-style-type: none"> <li>• Hepatotoxic</li> <li>• Veno-occlusive disease</li> </ul>
<b>Ephedra</b> Desert herb, herbal ecstasy, ma huang, popotillo, sea grape, yellow horse	<ul style="list-style-type: none"> <li>• Sympathomimetic → hypertension, tachycardia, hyperthermia (especially with exertion)</li> </ul>
<b>Juniper</b> <i>Juniperus communis</i>	<ul style="list-style-type: none"> <li>• Hallucinogenic</li> <li>• May cause GI symptoms or renal toxicity</li> </ul>
<b>Nutmeg</b>	<ul style="list-style-type: none"> <li>• Hallucinations; tachycardia</li> </ul>
<b>Wormwood</b> Absinthe	<ul style="list-style-type: none"> <li>• CNS: delirium (similar to alcohol intoxication), <b>hallucinations</b>, seizures, etc.</li> </ul>