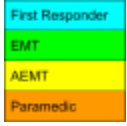


H-R6
VITAMINS/HERBAL
SUPPLEMENTS



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

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