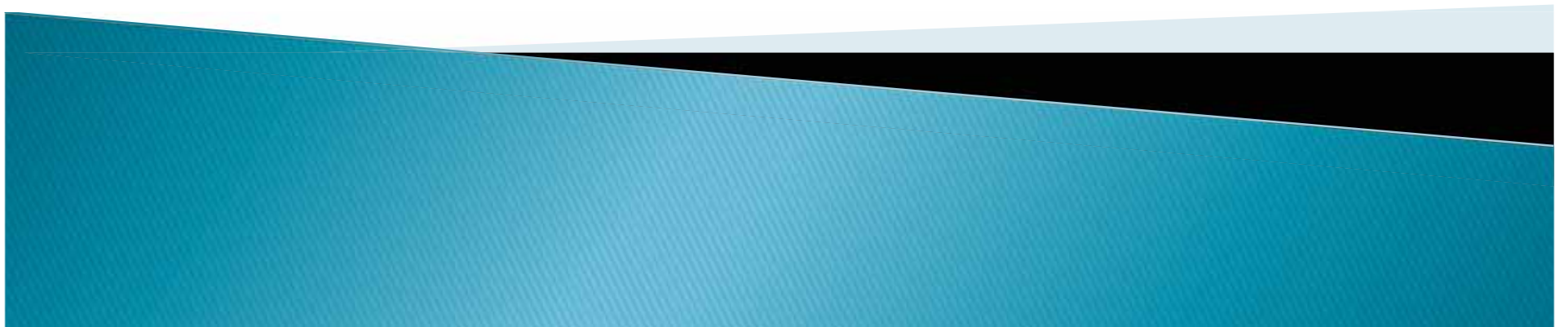


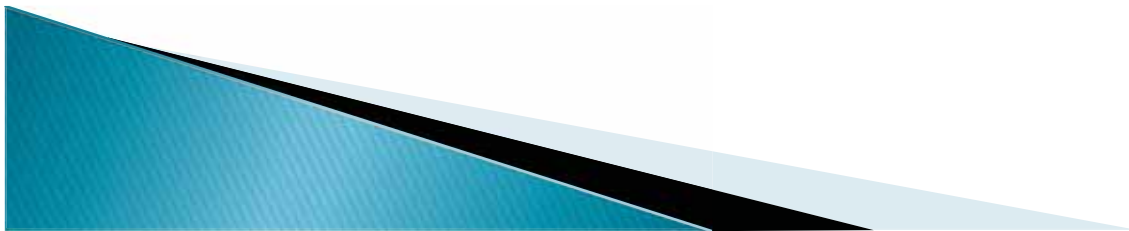
Safety Pros & Cons of Prescription Medications for Stroke & OTC drugs & Herbal Supplements

By Robert Janik PharmD



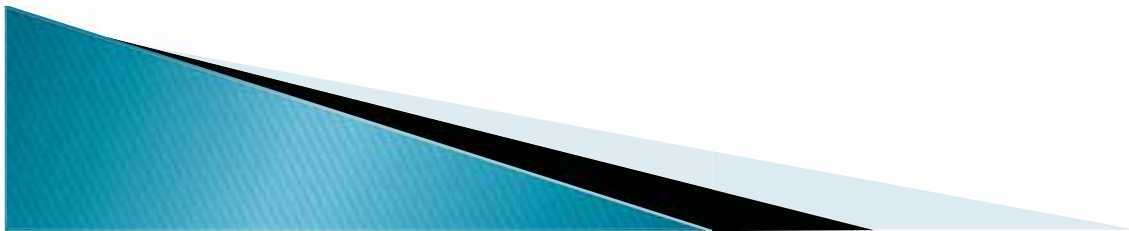
Recognizing Herbal Supplements

- ▶ What is a Herbal supplement??
- ▶ 31% of US households using 7 or more supplements
- ▶ Global market for herbal medicines= 60 billion US \$
- ▶ 60 + yr olds using the most supplements
- ▶ Most common herbal supplements
 - Gingko
 - Ginger
 - Garlic
 - St. John's Wort



Regulation of Herbal Supplements

- ▶ Dietary Supplement Health & Education Act of 1994
- ▶ “Not intended to diagnose, treat, cure, prevent
- ▶ Office of Dietary Supplements
- ▶ Labeling of Dietary Supplements (1997)
 - Suggested serving size
 - Net quantity of ingredients
 - RDA of supplement
 - Common plant name/specific plant part



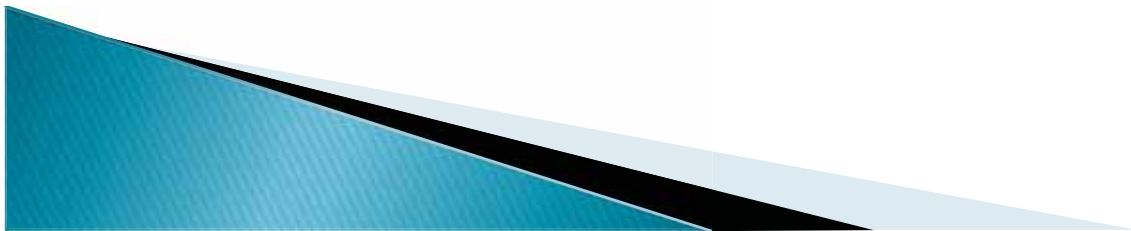
Regulation of Herbal Medications

- ▶ In 2000, regulations on structure function claims
- ▶ Labeling of supplements
 - Cannot state specific disease
 - Name of product cannot sound like disease
 - Cannot say the word "disease"
 - Cannot state class of drug, ex. Antibiotic
- Supplement companies labs are not regulated by FDA, companies can only state produced in lab using FDA approved manufac. processes



Websites for Supplements

- ▶ www.consumerlab.com
 - Tests potency and purity of products
- ▶ www.nccam.nih.gov
 - Nat'l center for CAM (comp. & alternative med)



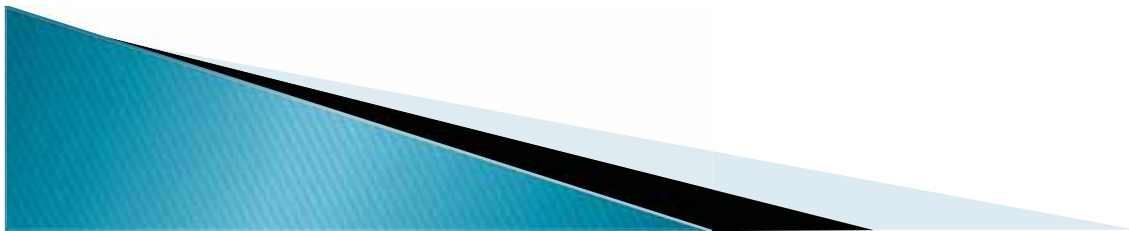
Common Stroke Medications

- ▶ Antiplatelet medications
 - Aspirin
 - Thienopyridines (Plavix/Ticlid)
- ▶ Anticoagulants
 - Warfarin
 - High risk stroke patients post HA
- ▶ Ace Inhibitors
 - Prevent plaque build-up/blood clotting
 - Prevention of first & second strokes
- ▶ Diuretics
- ▶ Calcium Channel Blockers
 - Post hemorrhagic stroke



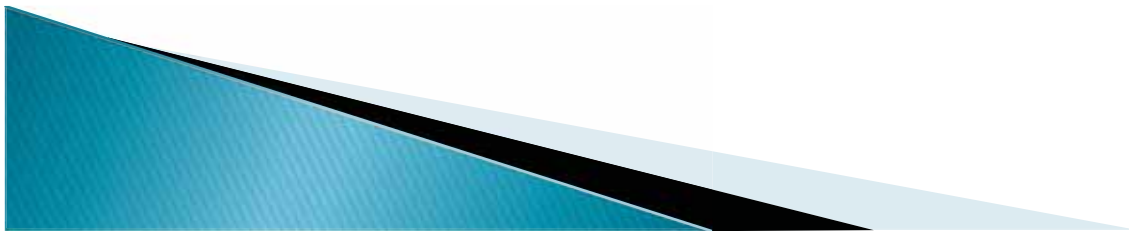
Herbal Medicines and Bleeding

- ▶ Major concern in stroke patients is bleeding and herbal medications
- ▶ Herbs that can potentially increase risk of bleeding
 - Garlic
 - Ginger
 - Ginkgo
 - Capsicum (Capsaicin)
 - Willow bark (contains aspirin)
 - Cranberries (dietary supplement)



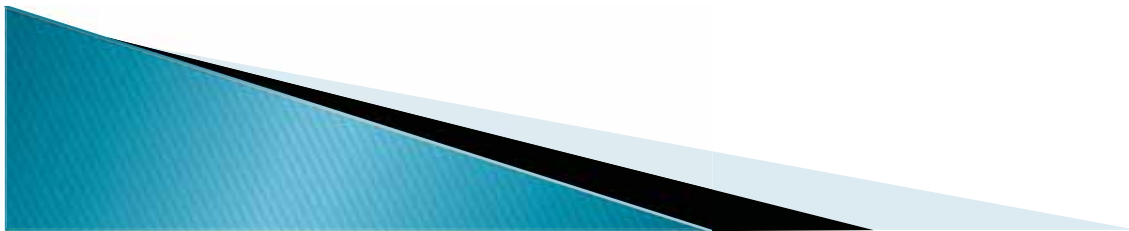
Garlic

- ▶ Used for:
 - Hypertension
 - Hyperlipidemia
 - Coronary heart disease prevention
 - Antiviral properties
- ▶ Has been shown to decrease cholesterol
- ▶ Has been shown to decrease blood pressure
- ▶ Does increase INR
- ▶ Patients on coumadin should avoid garlic
- ▶ Pts taking Aspirin, or Plavix (others) should avoid



Ginger

- ▶ Used for
 - Nausea/vomiting
 - Morning sickness
 - Anti-inflammatory (RA & OA)
 - Vertigo
 - Migraines
- ▶ Recent studies don't indicate significant interaction with warfarin
- ▶ Caution with antiplatelet drugs (can increase bleeding)
- ▶ Can interact somewhat with blood pressure meds, more so with Digoxin



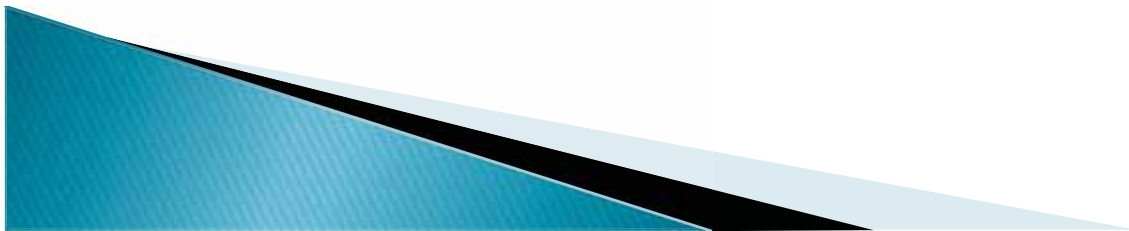
Ginkgo

- ▶ Leaves are from oldest living tree on earth
- ▶ One of chinese med. Drugs studied for stroke use
- ▶ Used for mental alertness, dementia, alzheimer's, leg pain due to peripheral artery disease
- ▶ Has been shown to interact with aspirin, coumadin, antiplatelet drugs, recent study did not show sig. increase of bleeding w/warfarin
- ▶ Can inc. bp when on thiazide diuretics
- ▶ Seizure threshold lowering effect
 - Caution with seizure medications (Dilantin, Keppra)



Ginseng

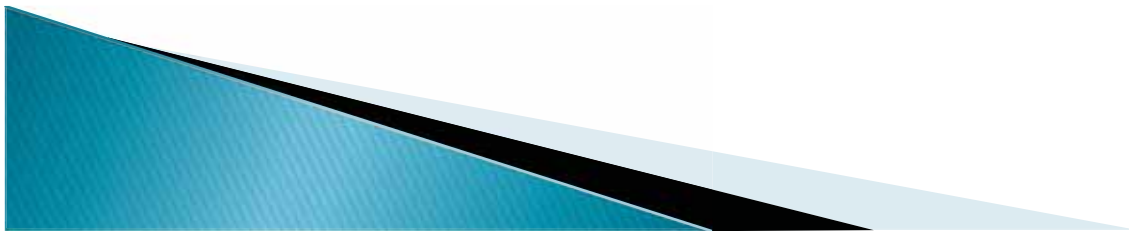
- ▶ 3 types: American, Oriental, Siberian
- ▶ All basically used for enhancing energy, reducing effects of stress, improving mood, increasing sex drive
- ▶ Shown to decrease effectiveness of coumadin
- ▶ May increase time for bleeding to stop
- ▶ May decrease effectiveness of aspirin, antiplatelets
- ▶ May decrease bp in some, increase in others



Misc. Supplements

- ▶ Fish Oils (Omega 3, EPA, DHA)
 - Can increase bleeding
 - Can lower blood pressure
 - Limit doses to 3 grams/day

- ▶ Vitamin E
 - Shown to be beneficial in cardiovascular health
 - Studied in alzheimer's—no significant results
 - Can increase bleeding—limit to 400mg/day



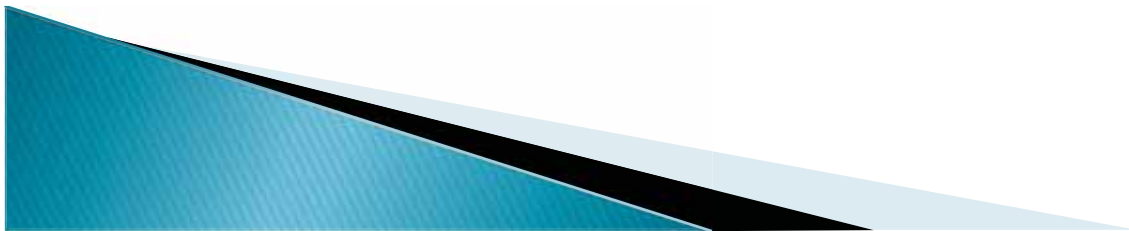
Misc. Supplements

- ▶ Coenzyme Q10
 - Used to improve cardiovascular function (HF)
 - May decrease effect of anticoagulants (decreases INR)
 - Patients may require higher coumadin doses
 - Interacts with blood pressure medications
 - May increase effectiveness of hctz, hydralazine, clonidine
 - Beta blockers (esp. propranolol) can produce negative effects (weaker heart beat)



Green Tea

- ▶ Used for its high content of antioxidants, used for weight loss, has been shown to reduce cholesterol
- ▶ Contains caffeine (inc. bp)
- ▶ Has been shown to dec. the effectiveness of warfarin (leaves contain vitamin K)
- ▶ May have some interaction with antiplatelet medications



OTC drugs and Stroke

- ▶ NSAIDS (ibuprofen, naproxen, ketoprofen)
 - Increased risk of bleeding (if on ASA, anti-platelets)
- ▶ Decongestants (sympathomimetics)
 - Pseudoephedrine
 - Phenylephrine
 - Can cause sudden increase in blood pressure causing hemorrhage
- ▶ Weight loss supplements
 - Excessive caffeine (inc. blood pressure)
 - Combination of herbs (ma huang) can interact with blood pressure, stroke meds

