

# Herbal Supplements

Background:

- ❖ Herbs were incredibly vital in creating ancient medicines in human cultures beginning as far back as 2700 B.C., such as camphor, sarsaparilla, and cocoa leaves.
  
- ❖ Currently, the American pharmaceutical industry utilizes non-herbal medicines to treat illnesses; financially, the industry has gained impregnable ties to other multi-trillion dollar enterprises in politics and the media. Herbal medicines were frowned upon with the invention of penicillin and vaccinations.
  
- ❖ Common Examples of Herbal Supplements:
  - Kava kava-
    - Alleviates anxiety and sleeplessness
  
  - Ginger-
    - Prevents nausea and motion sickness
  
  - St. John's Wort-
    - Treats depression, anxiety, sleeping disorder
  
  - Goldenseal-
    - Heals microbial infections

- stimulates the central nervous system

➤ Echinacea-

- Quickens immune system functions
- Aids in flu/cold recovery

\*\*Many herbal supplements have not been clinically proven to perform the aforementioned biological tasks.

❖ Dietary Supplements-

➤ Definition: "A dietary supplement is a product (other than tobacco) that:

- is intended to supplement the diet;
- contains one or more dietary ingredients (including vitamins; minerals; herbs or other botanicals; amino acids; and other substances) or their constituents;
- is intended to be taken by mouth as a pill, tablet, or liquid; and
- is labeled on the front panel as being a dietary supplement." (FDA 1994)

➤ Consumers tend to confuse "herbal supplements" with "dietary supplements" due to misleading marketing strategies.

➤ Dietary supplements often have similar effects to amphetamines; they become extremely addictive and may permanently damage the central nervous system.

- Dietary supplements are regulated by the U.S. Food and Drug Administration. New dietary ingredients can only be marketed by medicine companies if the FDA is provided with sufficient evidence that the ingredient is both safe and functional.

#### Statement of the Problem:

- ❖ The most significant problem with herbal supplements is that many of these herbs have unknown effects which are generally considered dangerous to humans' health. These include, but are not limited to: kava, ephedra, licorice root, bitter orange, and chapparal. (CDC 2008)
- ❖ Also, companies which supply dietary supplements often attempt to fool the public into thinking "herbal" ingredients are by default "healthy." In reality, some herbal supplements can result in catastrophe.
- ❖ If used to treat Chronic Fatigue Syndrome, consumers must keep in mind that this sickness makes some who have it extremely sensitive to various foods and chemicals (herbal supplements included) which should otherwise be limited for general health reasons. (CDC 2008)

#### Epidemiologic Picture of the Problem:

- ❖ "Neural tube defects (NTDs) are serious birth defects of the spine (spina bifida) and brain (anencephaly), affecting approximately 3,000 pregnancies each year in the United States ([1](#)). Daily periconceptional consumption of 400  $\mu\text{g}$  of folic acid, as recommended by the Public Health Service (PHS) since 1992, reduces the occurrence of NTDs by 50%--70% ([2](#)).

The Food and Drug Administration ordered mandatory fortification with folic acid of U.S. cereal grain products, beginning in 1998. However, despite a 26% reduction in NTDs, not all women of childbearing age receive adequate levels of folic acid from their diets (1).

Therefore, increasing the number of women who take dietary supplements containing 400  $\mu\text{g}$  of folic acid daily remains an important component of NTD prevention (3)." (CDC 2005)

- ❖ In April 2004, the [Food and Drug Administration](#) said it had received 260 reports of deaths associated with herbs and other nonvitamin, nonmineral supplements since 1989." (New York Times 2007)

Solutions to the Problem:

- ❖ The U.S. Food and Drug Administration became stricter in 1999 about dietary supplement products' labels. The "Supplement Facts" panel must display:
  - "The manufacturer's suggested serving size.
  - Information on nutrients when they are present in significant levels, such as vitamins A and C, calcium, iron and sodium, and the percent Daily Value where a reference has been established -- similar to nutrients listed in the "Nutrition Facts" panel on food labels.
  - All other dietary ingredients present in the product, including botanicals and amino acids -- those for which no Daily Value has been established." (FDA 1999)

- ❖ *Insight Journal* online contains a vast section of blogs and articles relating to addictive habits resulting from herbal supplements and dietary supplements. Real people can share their stories and cope together psychologically.
  - There are articles on weight-loss inducing recipes, and alternate methods of alleviating ADHD. “For depression you can use St. Johns wort and 5htp. Both work on increasing serotonin levels. For ADHD you can change your diet to foods that do not cause hyperactivity. Also breathing exercises and yoga are very useful but results are slow.” (Insight Journal 2008)
  - This site is constantly being updated, therefore its information is extremely accurate.
- ❖ The National Center for Complementary and Alternative Medicine is rapidly changing the way Americans view herbal supplements and dietary supplements.
  - “There has been an increase in the number of Web sites that sell and promote herbal supplements on the Internet. The Federal Government has taken legal action against a number of company sites because they have been shown to contain incorrect statements and to be deceptive to consumers. It is important to know how to evaluate the claims that are made for supplements.” (NCCAM 2006)

#### Internet Resources:

- ❖ The Office of Dietary Supplements (<http://ods.od.nih.gov/index.aspx>)
- ❖ Centers for Disease Control and Prevention (<http://www.cdc.gov/>)

Health A to Z

(<http://www.healthatoz.com/healthatoz/Atoz/clients/haz/general/custom/default.jsp>)

<b>Back to Betty C. Jung's Web site</b>	<a href="http://www.bettyjung.net/">http://www.bettyjung.net/</a>
<b>Back to Fact Sheet Directory</b>	<a href="http://www.bettyjung.net/Pch202fs.htm">http://www.bettyjung.net/Pch202fs.htm</a>

# Herbal Supplements (Class Handout)

- Definition: Traditional and ancient herbs used to cure, aid, or alleviate various illnesses and epidemics.
- Examples of Herbal Supplements:
  - kava kava, ginger, St. John's wort, goldenseal, echinacea
- Many herbal supplements have not been clinically proven to perform their proclaimed biological tasks; much of herbal supplements; functions are unknown.
- Dietary Supplements: "A dietary supplement is a product (other than tobacco) that:
  - is intended to supplement the diet;
  - contains one or more dietary ingredients (including vitamins; minerals; herbs or other botanicals; amino acids; and other substances) or their constituents;
  - is intended to be taken by mouth as a pill, tablet, or liquid; and
  - is labeled on the front panel as being a dietary supplement." (FDA 1994)
- Problems with Herbal Supplements:
  - misleading marketing techniques ("herbal" does not always equal "healthy")

- complications with pregnant women, AIDS-medications, and other circumstances
- The solution to safe consumption of all medications, including herbal, is being informed and governmental pressure to stop misleading, potentially dangerous marketing tricks.