

HEALTH

THE BASICS *green edition*



Rebecca J. Donatelle

PowerPoint® Lecture Outlines prepared by
Dr. Lana Zinger, QCC—CUNY

17

Complementary and Alternative Medicine

Complementary and Alternative Medicine: What Is It and Who Uses It?

■ **Complementary Medicine**

- Used together with conventional medicine
 - For example, using massage therapy along with prescription medicine to treat anxiety

■ **Alternative Medicine**

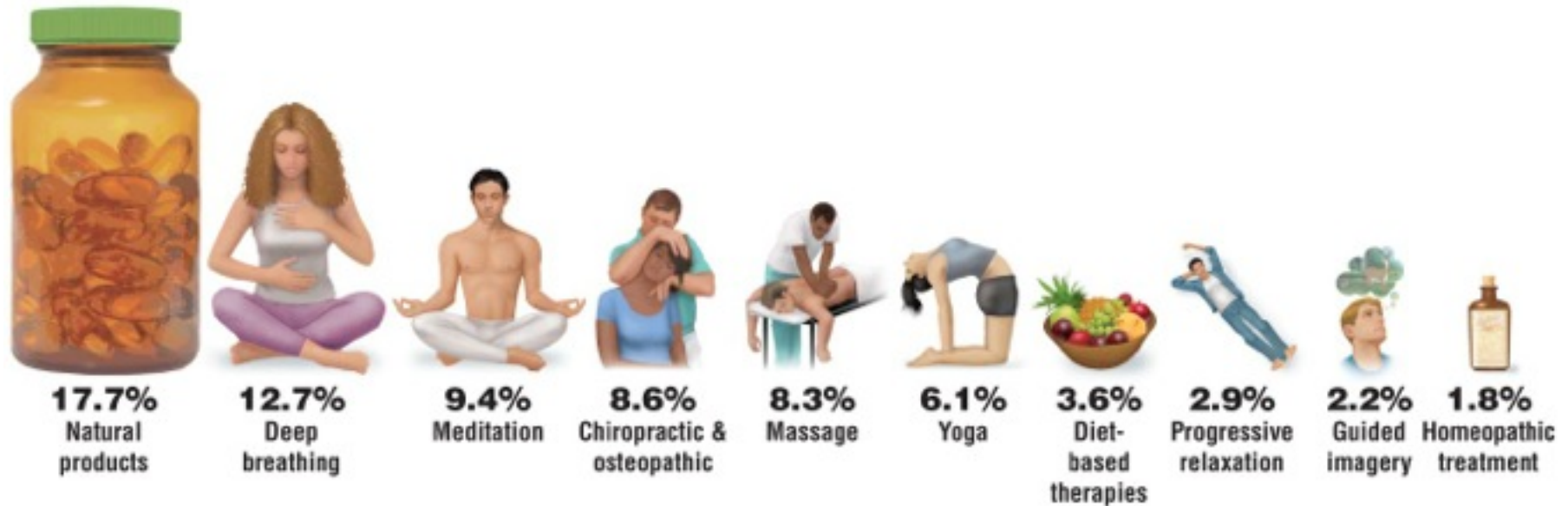
- Traditionally used in place of conventional medicine
- However, as alternative medicine has gained scientific credibility, they are used along with conventional treatment.
- Complementary and Alternative Medicine (CAM) practices are becoming more accepted as mainstream
- Generally incorporates a holistic approach, focusing on treating the whole body and the mind
- Used widely throughout the world

Complementary and Alternative Medicine: What Is It and Who Uses It?

- Complementary and alternative medicine varies widely in terms of the nature of treatment, extent of therapy, and types of problems for which it offers help.
- Practitioners of conventional medicine have to be licensed medical practitioners recognized by the American Medical Association (AMA).
- Each CMA domain has a different set of training standards, guidelines for practice, and licensure procedures.



The 10 Most Common CAM Therapies among U.S. Adults

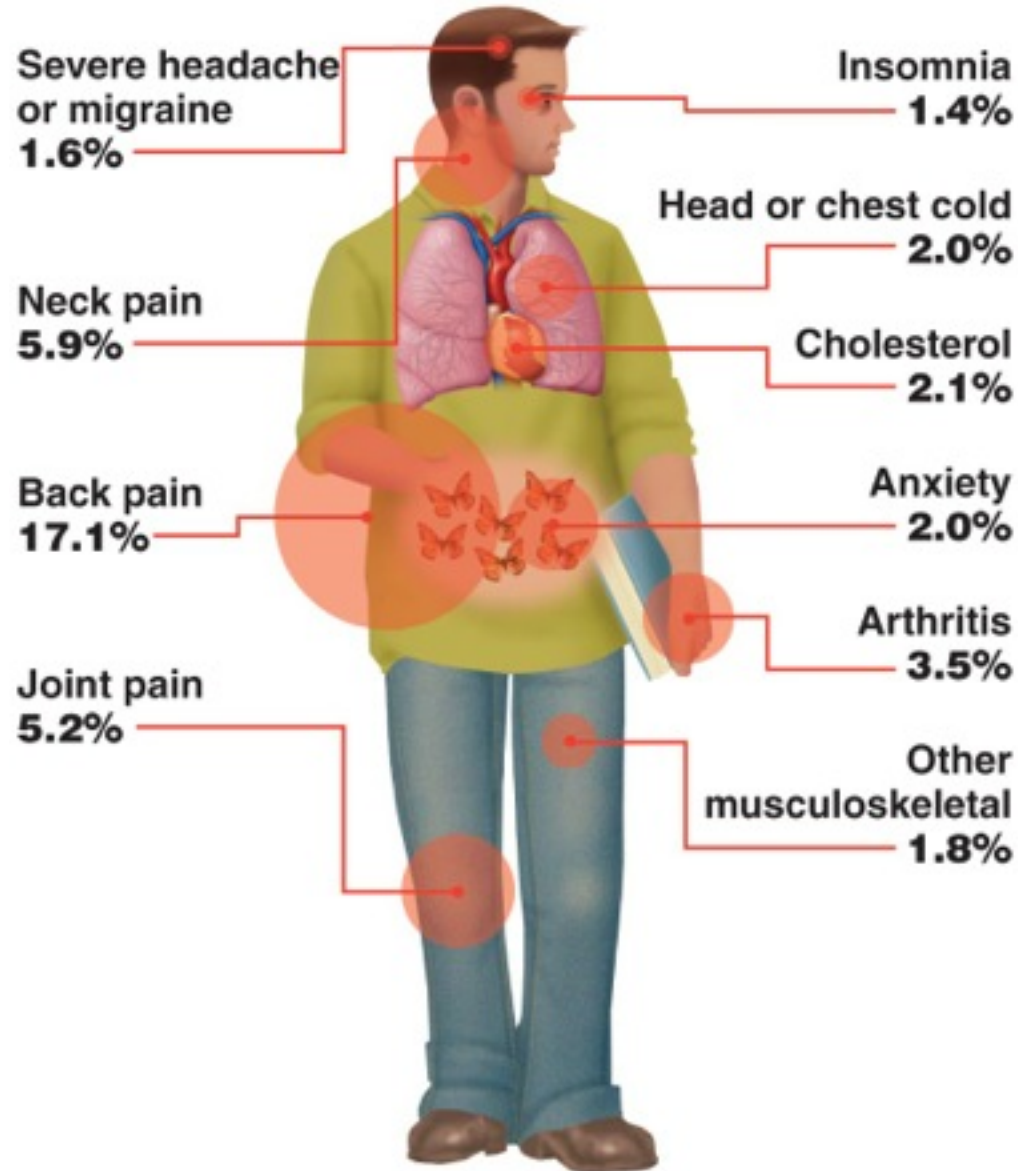


Complementary and Alternative Medicine: What Is It and Who Uses It?

- A survey of Americans revealed that 38 percent of adults use some form of CAM.
- Distinct patterns of those who use CAM use include
 - More women than men
 - People with levels of higher education
 - Those hospitalized within the past year
 - Former smokers
 - People with back, neck, head, and joint pain or other such conditions
 - Those with gastrointestinal disorders or sleeping problems



Diseases and Conditions for Which CAM Is Most Frequently Used among Adults, 2007



Alternative Medical Systems

■ Traditional Chinese Medicine (TCM)

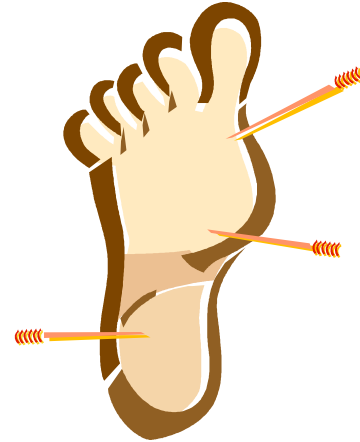
- Emphasizes the proper balance of qi (pronounced “chi”)
- Acupuncture, herbal medicine, massage, and qigong

■ Ayurveda (Ayurvedic medicine)

- Began thousands of years ago in India
- Aims to restore harmony by questioning, observing, touching, and classifying patients

■ Homeopathy

- Unconventional Western system based on the idea that “like cures like”
- Herbal medicine, minerals, and chemicals in diluted forms to kill or ward off illness



Alternative Medical Systems

■ Naturopathy

- Emphasizes restoring health rather than curing disease
- Diet, clinical nutrition, homeopathy, acupuncture, herbal medicine, hydrotherapy, manipulation, physical therapy, therapeutic counseling, and pharmacology
- Several major naturopathic schools provide training, conferring the *naturopathic doctor (ND)* degree

- ***Have you ever used one of these nontraditional practices?***



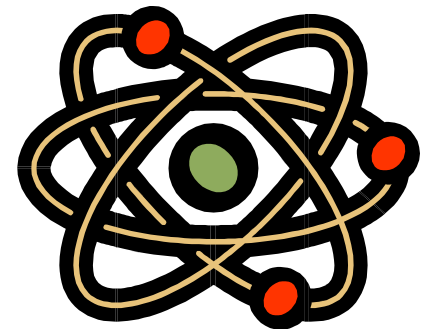
Alternative Medical Systems

■ Other Alternative Medical Systems

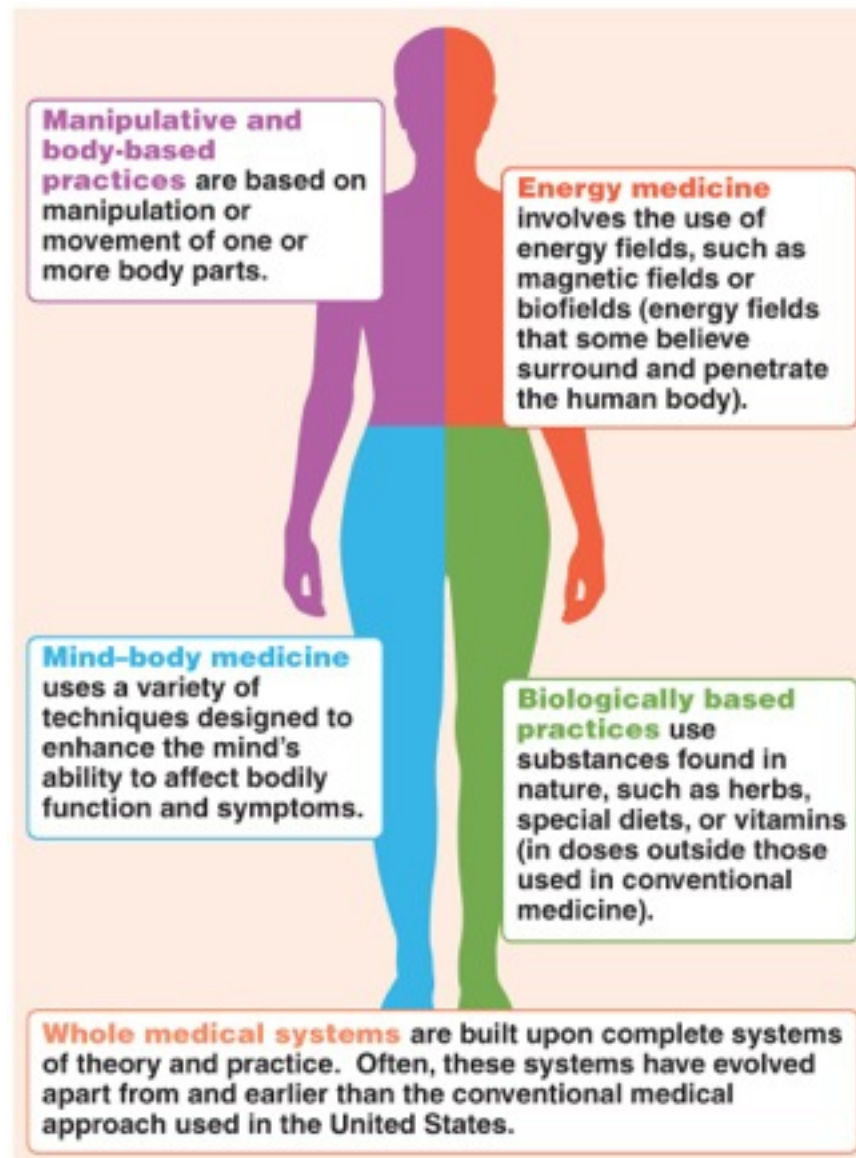
- Native American, Aboriginal, African, Middle Eastern, and South American cultures have their own unique alternative systems
- Before considering any treatments
 - Consult the most reliable resources
 - Thoroughly evaluate risks, the scientific basis of claimed benefits, and any contraindications to using CAM
 - Avoid practitioners who promote their treatments as a cure-all for every health problem
 - Avoid practitioners who seem to promise remedies for ailments that have thus far defied the best scientific efforts of mainstream medicine

Major Domains of Complementary and Alternative Medicine

- The National Center for Complementary and Alternative Medicine (NCCAM) has grouped the many varieties of CAM into four domains
 1. Manipulative and body-based practices
 2. Energy medicine
 3. Mind-body medicine
 4. Biologically based practices



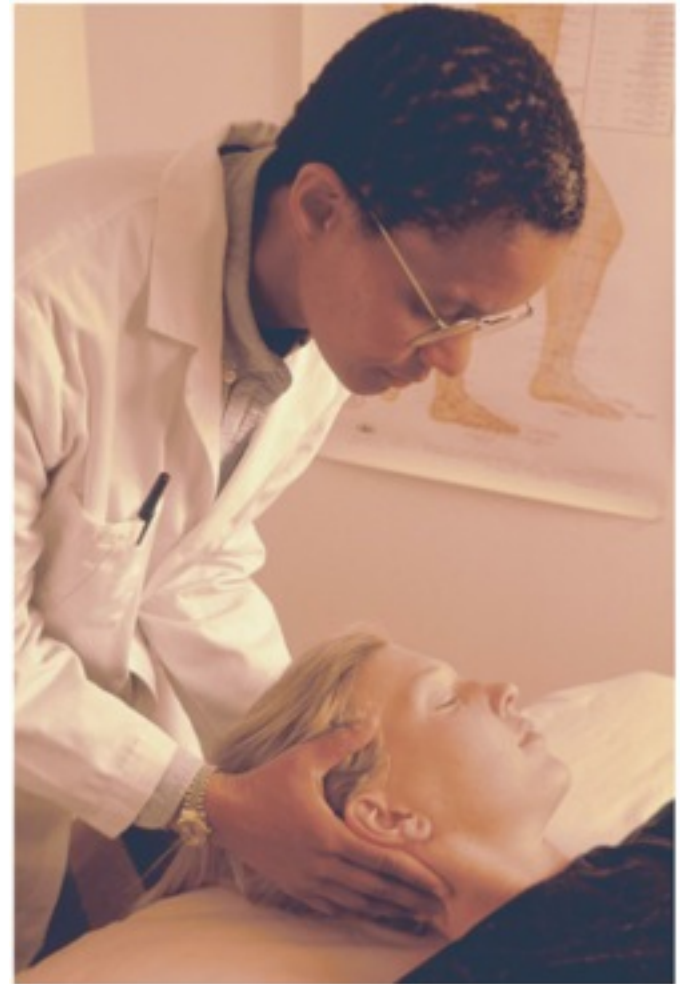
The Domains of Complementary and Alternative Medicine



Manipulative and Body-Based Practices

■ Chiropractic Medicine

- Has been practiced for more than 100 years
- Focuses on manipulation as a key therapy
- Many insurance companies will pay for chiropractic treatment
- More than 20 million Americans visit chiropractors each year.
- The practice of chiropractic is licensed and regulated in all 50 states.



Manipulative and Body-Based Practices

■ Massage Therapy

- Soft-tissue manipulation by trained therapists for healing purposes for
 - Lower back pain
 - Overworked muscles
 - Reducing stress and anxiety
 - Rehabilitating sports injuries
 - Promoting general health



Manipulative and Body-Based Practices

■ Types of Massage Therapy

- Deep tissue massage
- Swedish massage
- Trigger point massage
- Shiatsu massage



Manipulative and Body Based Practices

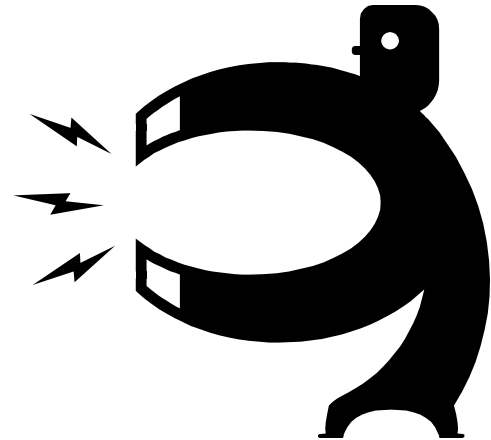
■ Bodywork

- ***Feldenkrais***—system of movements, floor exercises, and bodywork to retain central nervous system
- ***Rolfing***—aims to restructure the musculoskeletal system by working on tension held in deep tissue
- ***Shiatsu***—traditional Japanese healing art that applies firm finger pressure on specific points to increase circulation of vital energy
- ***Trager bodywork***—employs gentle, shaking motion of limbs to induce states of deep, pleasant relaxation



Energy Medicine

- Focuses either on energy fields thought to originate within the body (biofields) or on fields from other sources (electromagnetic fields)
 - Biofields
 - Qigong
 - Reiki
 - Therapeutic touch



Energy Medicine

■ Acupuncture

- The placement and manipulation of acupuncture needles is based on traditional Chinese theories of life-force energy (Qi) that flows through meridians in the body.
- Acupuncturists in the United States are licensed.
- Most participants report high levels of satisfaction.



■ Acupressure

- Similar to acupuncture, but uses pressure instead of needles
- Focuses on balancing the yin and yang

ABC News Video: Holistic Health Care



Discussion Questions

1. Do you believe acupuncture works? Would you try it?
2. What other alternative methods do you think may have the same effects?
3. Does someone who has written a book seem more of an authority on that subject?

Mind—Body Medicine

■ Psychoneuroimmunology (PNI)

- Interaction of consciousness (*psycho*), the brain and central nervous system (*neuro*), and the body's defense against external infection and internal aberrant cell division (*immunology*)
- Research shows that excessive stress can lead to immune system dysfunction and can increase the risk for disease.
- Activities that involve quieting the mind may counteract negative stressors.

Biologically Based Practices

- Most controversial of CAM therapies
- Many claims do not have evidence

- **Herbal remedies**






- People have been using herbal remedies for thousands of years
- Just because something is natural, however, does not necessarily mean it is safe—so herbal remedies are not to be taken lightly



Common Herbs and Herbal Supplements: Benefits, Research, and Risk

T A B L E
17.1

Common Herbs and Herbal Supplements: Benefits, Research, and Risks





Herb	Claims of Benefits	Research Findings	Potential Risks
 <p data-bbox="425 421 608 578">Echinacea (purple coneflower, <i>Echinacea purpurea</i>, <i>E. angustifolia</i>, <i>E. pallida</i>)</p>	<p data-bbox="627 421 956 578">Stimulates the immune system and increases the effectiveness of white blood cells that attack bacteria and viruses. Useful in preventing and treating colds or the flu.</p>	<p data-bbox="994 421 1323 606">Many studies in Europe have provided preliminary evidence of its effectiveness, but a recent controlled study in the United States indicated that it is no more effective than a placebo in preventing or treating a cold.</p>	<p data-bbox="1362 421 1700 606">Allergic reactions, including rashes, increased asthma, gastrointestinal problems, and anaphylaxis (a life-threatening allergic reaction). Pregnant women and those with diabetes, autoimmune disorders, or multiple sclerosis should avoid it.</p>
 <p data-bbox="425 621 608 728">Ephedra (ma huang, Chinese ephedra, <i>Ephedra sinica</i>)</p>	<p data-bbox="627 621 956 678">Useful for weight loss and athletic performance.</p>	<p data-bbox="994 621 1323 756">Comprehensive research has found that ephedra has only limited positive effects on weight loss and athletic performance but has numerous adverse effects.</p>	<p data-bbox="1362 621 1700 778">Heart attack, stroke, heart palpitations, psychiatric problems, upper gastrointestinal effects, tremor, insomnia, and death. The FDA has banned the sale of supplements containing ephedra.</p>
 <p data-bbox="425 799 608 878">Flaxseed (<i>Linum usitatissimum</i>)</p>	<p data-bbox="627 799 956 963">Useful as a laxative and for hot flashes and breast pain; the oil is used for arthritis; both flaxseed and flaxseed oil have been used for cholesterol level reduction and cancer prevention.</p>	<p data-bbox="994 799 1323 878">Study results are mixed on whether flaxseed decreases hot flashes or lowers cholesterol levels.</p>	<p data-bbox="1362 799 1700 906">Delays absorption of medicines, but otherwise has few side effects. Should be taken with plenty of water.</p>
 <p data-bbox="425 978 608 1035">Ginkgo (<i>Ginkgo biloba</i>)</p>	<p data-bbox="627 978 956 1106">Useful for depression, impotence, premenstrual syndrome, dementia and Alzheimer's disease, diseases of the eye, and general vascular disease.</p>	<p data-bbox="994 978 1323 1135">Some promising results have been seen for Alzheimer's disease and dementia, and research continues on its ability to enhance memory and reduce the incidence of cardiovascular disease.</p>	<p data-bbox="1362 978 1700 1085">Gastric irritation, headache, nausea, dizziness, difficulty thinking, memory loss, and allergic reactions.</p>
 <p data-bbox="425 1156 608 1213">Ginseng (<i>Panax ginseng</i>)</p>	<p data-bbox="627 1156 956 1313">Affects the pituitary gland, increasing resistance to stress, affecting metabolism, aiding skin, muscle tone, and sex drive; improves concentration and muscle strength.</p>	<p data-bbox="994 1156 1323 1313">Studies have raised questions about appropriate dosages. Because the potency of plants varies considerably, dosage is difficult to control and side effects are fairly common.</p>	<p data-bbox="1362 1156 1700 1263">Nervousness, insomnia, high blood pressure, headaches, chest pain, depression, and abnormal vaginal bleeding.</p>

Continued

Common Herbs and Herbal Supplements: Benefits, Research, and Risk

T A B L E
17.1

Common Herbs and Herbal Supplements: Benefits, Research, and Risks

Herb	Claims of Benefits	Research Findings	Potential Risks
 <p>Green tea (<i>Camellia sinensis</i>)</p>	Useful for lowering cholesterol and risk of some cancers, protecting the skin from sun damage, bolstering mental alertness, and boosting heart health.	Although some studies have shown promising links between green and white tea consumption and cancer prevention, recent research questions the ability of tea to significantly reduce the risk of breast, lung, or prostate cancer.	Insomnia, liver problems, anxiety, irritability, upset stomach, nausea, diarrhea, or frequent urination.
 <p>Kava (<i>Piper methysticum</i>)</p>	Useful for relaxation; relief of anxiety, insomnia, and menopausal symptoms; sometimes used topically as a numbing agent.	Scientific studies provide some evidence that kava may be beneficial for the management of anxiety.	Increases the effect of alcohol and other drugs; causes drowsiness; the FDA has issued a warning that using kava supplements has been linked to a risk of severe liver damage.
 <p>St. John's wort (S.J.W, Klamath weed, <i>Hypericum perforatum</i>)</p>	Useful for depression, anxiety, and sleep disorders.	There is evidence that S.J.W is useful for treating mild to moderate depression, but two large studies showed that it was no more effective than a placebo in treating major depression of moderate severity.	Gastrointestinal upset, fatigue, dry mouth, anxiety, sexual dysfunction, dizziness, skin rashes, itching, and extreme sensitivity to sunlight.
 <p>Valerian (<i>Valeriana officinalis</i>)</p>	Useful for relaxation, sleep disorders, anxiety, headaches, depression, irregular heartbeat, and trembling.	Research suggests it may be helpful for insomnia, but there is not enough evidence to determine whether it works for anxiety, depression, or headaches.	Mild side effects, such as headaches, dizziness, upset stomach, and tiredness the morning after use.

Sources: National Center for Complementary and Alternative Medicine, "Herbs at a Glance," 2009, <http://nccam.nih.gov/health/herbsataglance.htm>; Office of Dietary Supplements, National Institutes of Health, "Dietary Supplement Fact Sheets," 2009, http://ods.od.nih.gov/Health_Information/Information_About_Individual_Dietary_Supplements.aspx; U.S. Food and Drug Administration, "Final Rule Declaring Dietary Supplements Containing Ephedrine Alkaloids Adulterated Because They Present an Unreasonable Risk," 2008, www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/DietarySupplements/ucm072997.htm; American Cancer Society, "Green Tea," 2008, www.cancer.org/docroot/ETO/content/ETO_5_3x_Green_Tea.asp.

Biologically Based Practices

■ Special Supplements

- Not all supplements on the market today are directly derived from plant sources
- Increasing reports in the media on the health benefits of various vitamins, minerals, amino acids, and other specific biological compounds



Common Nonherbal Supplements: Benefits, Research, and Risk

T A B L E
17.2

Common Nonherbal Supplements: Benefits, Research, and Risks

Supplement	Claims of Benefits	Research	Potential Risks
Dehydroepiandrosterone (DHEA) (hormone)	Fights aging, boosts immunity, strengthens bones, and improves brain functioning.	No antiaging benefits proven.	Could increase cancer risk and lead to liver damage, even when taken briefly.
Vitamin E (vitamin)	Reduces risk of heart disease; better chance of survival after heart attack.	Research results on prevention of heart disease are mixed. Some researchers are curious to see if it is most protective for young, healthy people against eventual heart disease.	High doses cause bleeding when taken with blood thinners.
Glucosamine (biological substance that helps the body grow cartilage)	Useful for arthritis and related degenerative joint diseases; relieves swelling and decreases pain.	When it is taken with chondroitin sulfate, preliminary research shows that it helps reduce pain in people with moderate to severe joint pain.	Few side effects noted.
L-Carnitine (amino acid derivative)	Improves athletic performance, increases fat-burning enzymes, used to combat fatigue and aging.	No consistent evidence that it improves performance in healthy athletes. Some evidence that it enhances mental function in older adults with mild cognitive impairment.	Nausea, vomiting, abdominal cramps, diarrhea, "fishy" body odor; more rarely, muscle weakness, seizures in patients with seizure disorders; interacts with some medications.

Continued

Common Nonherbal Supplements: Benefits, Research, and Risk

T A B L E
17.2

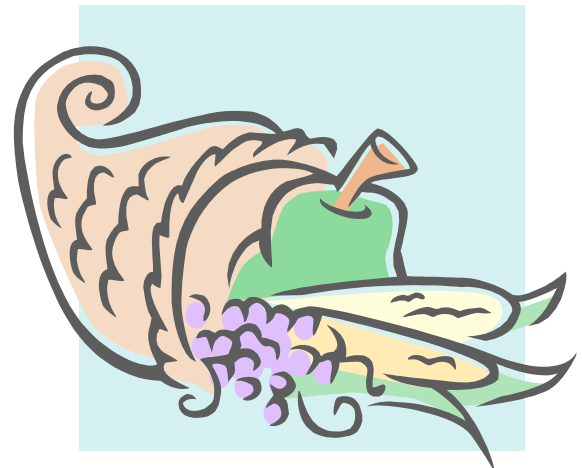
Common Nonherbal Supplements: Benefits, Research, and Risks

Supplement	Claims of Benefits	Research	Potential Risks
Melatonin (hormone)	Useful in regulating circadian rhythms and sleep patterns and treating insomnia; claims of antiaging benefits.	Some evidence supports its usefulness in regulating sleep patterns. No scientific support for antiaging claims.	Nausea, headaches, dizziness, blood vessel constriction; possibly a danger for people with high blood pressure or other cardiovascular problems.
SAMe (pronounced "sammy") (biological compound that aids over 40 functions in the body)	Useful in treatment of mild to moderate depression and in treatment of arthritis pain.	Studies have supported its usefulness in treating depression and arthritis pain.	Fewer side effects than prescription antidepressants have. Questions remain over how much a person should take, in what form, and whether there are long-term side effects.
Zinc (mineral)	Supports immune system; used to lessen duration and severity of cold symptoms; aids wound healing.	Research results are mixed, possibly due to the wide variety of cold viruses and differences of formulations and dosages in zinc lozenges.	Excessive intake associated with reduced immune function, reduced levels of high-density lipoproteins ("good" cholesterol).

Source: Office of Dietary Supplements, National Institutes of Health, "Dietary Supplement Fact Sheets," 2009, http://ods.od.nih.gov/Health_Information/Information_About_Individual_Dietary_Supplements.aspx.

Biologically Based Practices

- **The Role of Functional Foods in CAM Therapies**
 - *Functional foods*—foods or supplements designed to improve some specific aspect of physical or mental functioning
 - *Nutraceuticals*—provide combined nutritional and pharmaceutical benefit



Biologically Based Practices

■ Common Functional Foods

- Plant stanols/sterols
- Oat fiber
- Sunflower
- Soy protein
- Garlic
- Ginger
- Yogurt

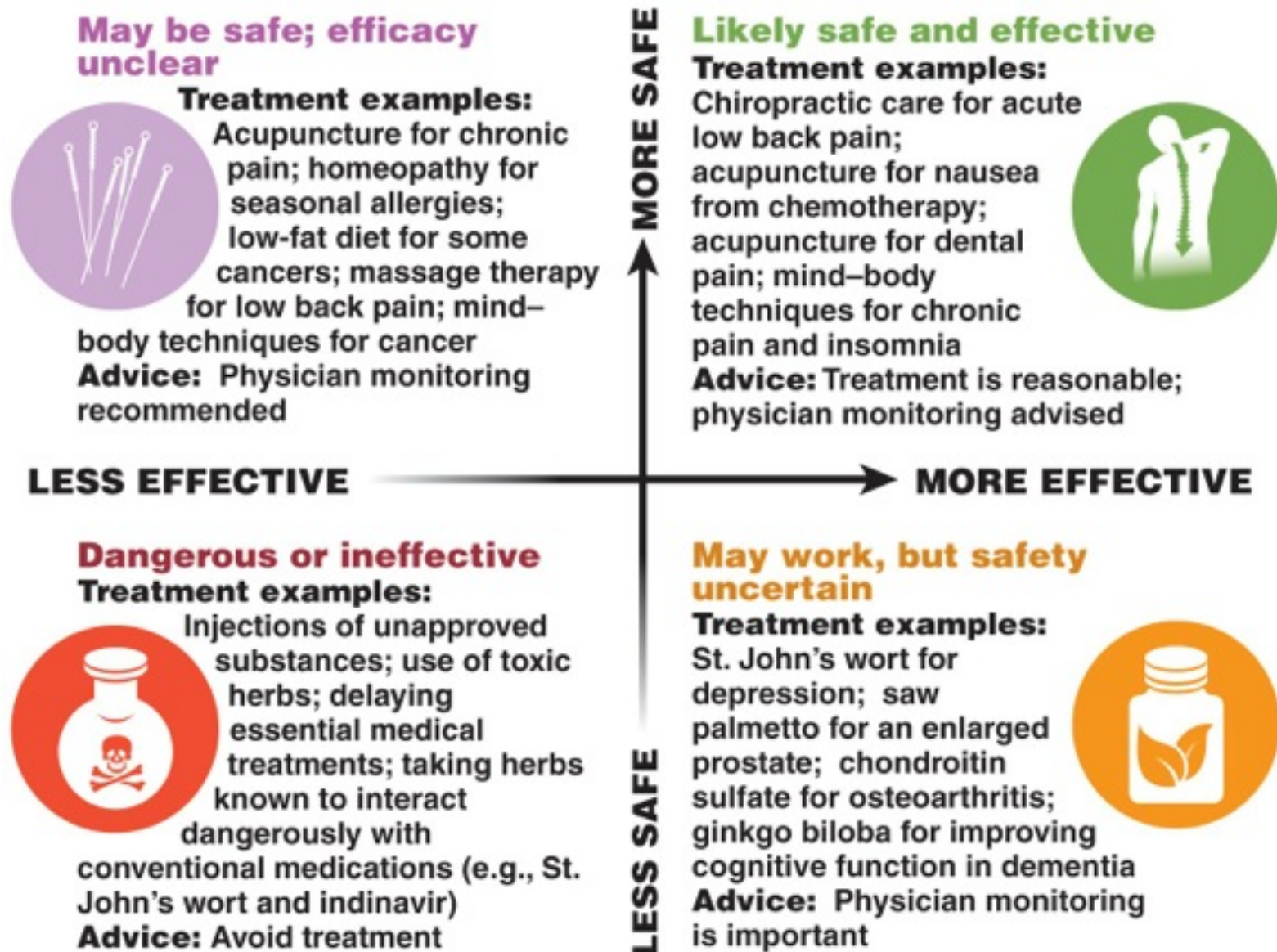


Protecting Consumers and Regulating Claims

- **Strategies to Protect Supplement Consumers' Health**
 - Talk to your doctor.
 - Do your homework.
 - Advocate for more stringent FDA approval.
 - Look for the “USP Dietary Supplement Verified” seal.



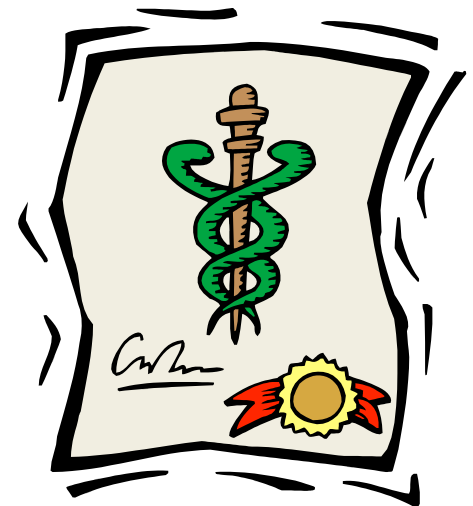
Assessing the Risks and Benefits of CAM Treatments



The Future of CAM Therapy

■ Enlisting Support from Insurers and Providers

- More and more insurers are covering alternative care, at least to some degree.
- Support from professional organizations, such as the AMA, is increasing as more physician training programs require or offer electives in alternative treatment modalities.
- CAM can offer new avenues to better health, but it is up to you to make sure that you are on the right path.



The Future of CAM Therapy

■ CAM and Self-Care

- Consult only reliable sources—texts, journals, and periodicals.
- Remember that natural does not equal safe.
- Realize that no one is closely monitoring herbal supplements.
- Dosage levels may vary in herbal products.
- Tell your doctor what you are taking—interactions could occur.
- Look for the word *standardized* or for the “USP Dietary Supplement Verified” seal.