

Alternative and Complimentary Therapies in Women's Health Care

Satellite Conference and Live Webcast

Thursday, June 19, 2008

1:00 - 3:00 p.m. (Central Time)

Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division

Faculty

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Objectives

- Discuss how to pick a quality herbal product.
- Name five vitamins commonly used as supplements and discuss their potential benefits.

Objectives

- Discuss common herbal products which may be used by patients seeking to improve their physical health.
- Discuss integrative therapies for common complaints often presented in women's health.

Good Manufacturing Practices (GMP)

- Refers to methods or practices used in the manufacture, processing and packing of a product
- Ensures that the product has the correct identity and strengths and meets the quality and purity standards that it possesses
- More rigorous GMP for dietary supplements expected to be approved and implemented by the FDA in 2005

United States Pharmacopeia (USP)

- Has developed standards for drugs since 1820
- In 2002, launched a Dietary Supplement Verification program
 - USPverified.org
- Consumer labs randomly test dietary supplements
 - www.consumerlabs.com



Supplement Labels FDA Requirements

- General information
 - Name of product
 - Net quantity
 - Name and place of business of manufacturer, packer or distributor
 - Directions for use

Supplement Labels FDA Requirements

- Supplement facts panel
 - Serving size
 - Scientific name of plant or common or usual name
 - Proprietary blend
- Other ingredients
- Lot numbers

Top Selling Dietary Supplements In The United States

- Multivitamin
- Vitamins C and E
- Calcium
- Iron
- Glucosamine
- Chondroitin
- Probiotics
- Fish Oils
- Coenzyme Q 10
- SAME

Top Selling Dietary Supplements In The United States

- Garlic
- Echinacea
- Saw Palmetto
- Ginkgo
- Soy
- Cranberry
- Ginseng
- Black Cohosh
- St. John's Wort
- Milk Thistle

Meet Sylvia

57 year old who comes to your clinic for the first time. She's heard you know a lot about herbs and she's interested in learning what she can use for her hot flashes. Her last period was "about 1 year ago." She has hot flashes 3-4 times during the day but it's "the ones at night" that are "really bad." She's not sleeping well (although she's always had a problem with sleeping.)

More About Sylvia

Sylvia works in a FP for DHEC and has for 15 years. She also complains of being “tired all the time.” She weighs 160 pounds and is 64 inches tall. She eats “a normal diet” but doesn’t exercise. “I’m too tired after working all day!” She complains of constipation and takes a laxative once or twice a week. She is divorced with 2 grown children and two grandchildren. Her spare time is spent with church activities and watching TV.

And Still More About Sylvia

Her parents are both living: her father had a heart attack at age 65 and both parents take medicine for high blood pressure. Her mother broke her arm after a fall last year. Sylvia doesn’t smoke and has an occasional glass of wine (when out with friends at a conference.)

She asks you what you think about hormone therapy or “something more natural like black cohosh,” and are there any other “herbs or vitamins that I should be taking?”

Sylvia’s CC List

- Postmenopausal
- Hot flashes/night sweats
- Insomnia
- Overweight
- Constipation
- Lack of physical activity
- Questionable diet
- Family history of CVD and osteoporosis?

Black Cohosh

- Not historically used for “menopause symptoms”
- Historically used as an anti-rheumatic, for melancholy and as a labor-aid during childbirth

Black Cohosh

- Initially thought to contain the isoflavone formononetin (a compound that would bind to estrogen receptors in rat uteri) but recent studies failed to identify this compound
- Newer studies show no effect on LH, FSH or SHBG
- Does not bind to estrogen receptors; mechanism of action is probably not estrogenic

Black Cohosh

- No evidence that taking black cohosh increases a woman’s risk of breast cancer (safety in woman with a history of breast Ca is not well established)

Black Cohosh and Safety

- Few rare cases (four) of acute liver disease have been reported in women taking black cohosh but a panel of scientific experts concluded that at this time, there does not appear to be a direct link between black cohosh and liver damage
- Debate over checking baseline liver function tests and repeating in 8-10 weeks

Black Cohosh and Safety

- Relatively impressive safety record over the past 40 years and no serious adverse events reported in clinical trials or large European drug-monitoring studies

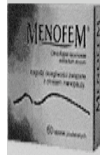
Black Cohosh and Efficacy

- RCTs that contained a placebo and/or comparative treatment arm that were at least 6 months in duration were predominately positive
- Problems with the studies may temper the endorsement for its use
- German Commission E and NAMS recommend black cohosh along with life-style changes for mild to moderate menopausal symptoms

Majority of studies on black cohosh have been conducted using Remifemin. The dose in the clinical trials has ranged from 20-80 mg taken twice a day.



Two studies have used Menofem. The dose in the clinical trials was 20 mg taken twice a day.



Sylvia's Second Visit

Sylvia reports her hot flashes are "much better" but not totally gone and she still has some problems sleeping. A friend of hers is taking a product called "Healthypause" and "raves" about it and Sylvia wonders if that might work better for her than the black cohosh or could she take both?.....

"Healthypause" Label

- Dong quai root extract(4:1) 150 mg
- Vitex berry extract (4:1) 150 mg
- Red clover leaf extract (4:1) 100 mg
- Panax ginseng root extract 100 mg (4% ginsenosides)
- Wild yam root extract (8:1) 50 mg
- Salvia officinalis leaf extract (14:1) 50 mg

Dong Quai

- Member of the parsley family and used in TCM for centuries
- Generally regarded as a tonic for people with fatigue, low energy or recovering from illness
- RCT failed to find any benefit compared with placebo in reducing hot flashes or other menopausal symptoms (KI index)

Dong Quai

- One trial using “Climex” (combination of dong quai 75 mg and chamomile extract 30 mg) showed high treatment response but low placebo response raising questions about the validity of the trial
- Appears to be safe, although many herbalists report it can aggravate heavy menstrual bleeding

Dong Quai

- May interact with warfarin (one case report)
- Unlikely to increase a woman’s risk of breast cancer (Is it estrogenic-conflicting studies?)

Ginseng

- German Commission E and WHO endorse Ginseng as a “tonic” for invigoration and fortification in times of fatigue and debility, for mental and physical exhaustion, declining capacity for work and concentration and recovery from illness
- Study using “Ginsana” failed to reduce vasomotor symptoms...but found improvement in depression and wellbeing compared to placebo group

Ginseng

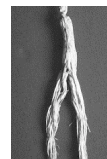
- Dosage used in trials 100-600mg/d (root extract standardized to 4% ginsenosides)
- Rarely associated with adverse events but has a long history of adulteration
- May interact with warfarin
- Not thought to be estrogenic but safety in women with breast cancer is unknown

<http://nccam.nih.gov/health/>

NCCAM
HERBS AT A GLANCE

NATIONAL CENTER FOR COMPLEMENTARY
AND ALTERNATIVE MEDICINE

NATIONAL INSTITUTES OF HEALTH



Vitex Agnus Castus or Chastetree

- In vitro evidence shows estrogenic and progesteronic activity
- Regarded as a “hormone balancer”
- German Commission E endorses its use for PMS, cyclical mastalgia and irregular menses
- No RCTs exploring its use for menopausal symptoms

Sage Leaf (Salvia Officinalis L.)

- Traditionally used to reduce sweating
- Used by British herbalist for night sweats
- Studies show some weak estrogenic activity
- German Commission E recognizes use for dyspeptic symptoms and excessive perspiration
- Few well controlled trials

Wild Yam (Dioscorea Villosa L.)

- It's a myth that wild yam as an herb can be taken po or applied topically and then “be converted” into progesterone
- Diosgenin, is found in wild yam plants and is used to make pharmaceutical grade progesterone
- The human body cannot convert diosgenin into progesterone or any other steroidal component

Wild Yam (Dioscorea Villosa L.)

- No evidence that topically applied cream helps menopausal symptoms
- Traditionally used as a "colic root" for spasms of the GI tract

Red Clover

- Contains isoflavone compounds genistein and daidzein and formononetin and biochanin A
- Two studies using “Promensil” and “Rimostil” failed to find significant benefit in reducing vasomotor symptoms of menopause



Evening Primrose Oil

- Contains gamma linoleic acid (GLA)
- Ingestion likely results in reduction of prostaglandin E-2 (PGE-2) and increase of prostaglandin E-1 (PGE-1)
- PGE-1 has vasodilatory, immunomodulating and anti-inflammatory activities

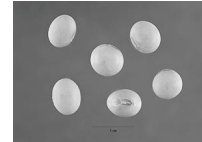


EPO

- Often considered first line agent for cyclical mastalgia (not supported in all clinical studies)
 - GLA may play a role in control of prolactin secretion and steroid hormone receptor interaction
- Atopic dermatitis (early study found a dose-related response)

So What's A Phytoestrogen?

- Plant compounds that act as weak estrogens or anti-estrogens in the body
- 4 classes and 7 sub-families
- Both soy and red clover contain isoflavones



What About Phytoestrogens?

Isoflavones (genistin, daidzin)

Glycoside form



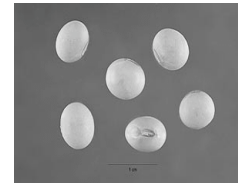
Converted in the gut to Aglycones
(genistein, daidzein)
More biologically active



Daidzein can then be converted to equol,
which has considerably more estrogenic
activity

Soy (Glycine Max L.)

- Contains isoflavone compounds genistin and daidzin (these are the glycoside form)
- When eaten, they are converted to their more active aglycone form (genistein, daidzein)



More About Soy

- Only 35% of Western population can convert aglycones to equol form due to differences in intestinal flora
- Soy's estrogenic effect is weak compared to natural estrogens in the body 1/100th to 1/1000th
- Some research suggests isoflavones may act by blocking the powerful effect of a woman's own estrogen
- Japanese women have 1/5th the rate of breast cancer compared to Western women (*avg intake is 20-80 mg isoflavone/d compared to 5 mg/d)

More About Soy

- Tofu, tempeh, soymilk, miso, soy sauce
- Thought to be helpful for CV disease, osteoporosis and cancer
- Conflicting data for the relief of menopausal symptoms
- Soy foods and dietary supplements have not been associated with increased risk of breast cancer or effect the survival of women with breast cancer

Non-Hormonal Drugs for Menopausal Symptoms

- Venlafaxine (37.5 mg/d and titrate upwards)
- Paroxetine (12.5 mg/d and 25mg/d)
- Gabapentin (neurotin) 900 mg/d
- Clonidine 0.1 mg/d
- None are FDA approved to treat hot flashes or other menopausal symptoms

Recommendations for Sylvania

- Stick with the black cohosh
- Add soy products to your diet
- Add fruits and vegetables
- Consider adding ginseng
- Consider valerian for sleep
- Consider increasing your physical activity
- Think about calcium for your bone health

More Specific Recommendations for “Sylvia”

- Soy foods (isoflavones 50-70 mg/d)
- Ginseng 200 mg/d (4% ginsenosides)
- Schizandra chinensis fruit (juice or tea)
- 5-9 servings of fruits/veggies and water
- Ground flax seed (1-2 Tbsp)
- Pedometer (3000 steps/d and increase to 10,000 steps/day)
- Explore her needs/wants at this stage of her life

Valerian

- About 30% of Americans experience sleep problems
- Generally safe and non-habit forming
- Inconclusive data
- Contraindicated in pregnancy and lactation



More About Valerian

- Often combined with hops, passionflower or lemon balm
- 300-500mg one hour before sleep (100-200mg bid for anxiety)

Supplements for Bone Health

- Established bone benefits
 - Calcium
 - Vitamin D

The Finer Points About Calcium

- Calcium Carbonate (Tums, Os Cal, Viactiv)
- Usually the one to recommend **UNLESS** you have a patient with lower than normal stomach acid
- Elderly
- Patients on PPI
- Usually take with food
- Calcium Citrate (Citracal)

The Finer Points About Calcium

- Better for those with low stomach acid, can be taken with or without food
- Coral Calcium
- Expensive and may contain increased levels of lead

Vitamin D

- May be deficient in patients who get little or no sunlight exposure
- Deficiency may lead to unexplained bone or muscle pain (osteomalacia)
- Meds that deplete Vit D include tegretol, phenytoin, xenical, rifampin
- Dietary source-fortified milk (100 IU/cup)

Recommended Dosages of Vit D

- Age 19-50 200 IU/day
- Age 51-70 400 IU/day
- > Age 70 600 IU/day
- Think about checking a Vit D level in patients with persistent muscle pain (many patients will feel musculoskeletal pain long before developing osteomalacia)

Vitamin D

- Three ways to get Vitamin D
 - Sun exposure (10 to 15 minutes twice a week to the face, hands and back)
 - Supplements (most contain D-2 which is less bioavailable than D-3...read the label)
 - Foods such as oily fish (salmon and tuna) and Vit D fortified foods and drinks

Vitamin D

- No "RDA" but 200 IU thought to be adequate (up to age 50)
- Regulates calcium levels in the blood and tissues and is essential for maintaining BMD

Supplements for Bone Health

- Boron 0.5-3 mg/d
- Copper 1-2 mg/d
- Magnesium 200-600mg/d
- Manganese 5-20 mg/d
- Vitamin C 100-1000mg/d
- Vitamin K 100-500 mcg/d
- Zinc 10-30 mg/d

Boron

- Deficiency lead to bone abnormalities in chickens
- Study of 12 postmenopausal women-diet deficient in boron for 119 days then boron supplement added
- Boron reduced urinary excretion of magnesium and increased serum concentrations of 17 B-estradiol and testosterone
- Adequate boron from diets liberal in fruits, veggies and nuts

Magnesium

- Study by Abraham et al (1990) showed Mg⁺⁺ and Ca⁺⁺ supplementation was better than Ca⁺⁺ alone for improving bone density
- Too much Ca⁺⁺ supplementation may lead to magnesium deficiency
- Balance 2 mg Ca⁺⁺ for every 1 mg of magnesium
- RDA is 350 mg/d ...the average diet contains 250 mg/d

Magnesium

- Dietary recommendations from Abrahams study
 - Limit protein (chose plant protein over animal)
 - Limit intake of sugar, salt, ETOH, coffee, tea, chocolate and tobacco
- Food sources include whole grains, nuts, seeds, green vegetables
- Too much magnesium leads to loose stools and avoid supplementation in people with renal failure

Manganese

- Bill Walton and his macrobiotic diet
 - Tests showed he was deficient in copper, zinc and manganese
- In a study of Belgian women with osteoporosis, manganese levels were 75% lower than controls (24 other measured factors were the same)
- Rats fed diets deficient in manganese had reductions of Ca⁺⁺ in the femur

What Does Manganese Do?

- Stimulates production of mucopolysaccharides that provide structure upon which calcification takes place
- May have a role in CV disease (rabbits fed high cholesterol diet had reduction in atherosclerosis when fed diet supplemented with manganese)
- No clearly defined manganese deficiency syndrome in humans

What Causes Manganese Deficiency?

- ? Food processing
 - The food additive EDTA binds tightly to manganese and may inhibit absorption
- Taking iron, magnesium and calcium supplements may inhibit the uptake of manganese
- Genetic factors?

Foods Containing Manganese

- Whole grains
 - Nuts
 - Seeds
 - Leafy vegetables
 - Meat
 - Rice bran
- (vitamins usually contain 5-25 mg/d; the average diet probably contains 3-9 mg/d)

Vitamin K

- Involved in the production of osteocalcin and the protein matrix upon which calcium crystallizes
- (Glutamic acid---with Vit K as a catalyst---gamma carboxyglutamic acid (GLA)GLA attracts Ca⁺⁺ ions)
- Deficiency thought to be extremely rare

Vitamin K

- Hart in England found a new way to reliably measure Vit K levels in patients with fractures (hip and spine) and found decreased Vit K levels
- But is this cause or effect? In rats, a diet deficient in Vitamin K led to increased urinary Ca⁺ excretion which was reversible when Vit K was added to the diet

Vitamin K

- Study in 1989, Ann Intern Med on the effect of supplementation of Vit K on circulating osteocalcin (bone GLA protein) found the capacity of osteocalcin to attract Ca⁺ was reduced 50% in 50 healthy postmenopausal women. When given Vit K 1 mg/d for 2 weeks, the test became normal
- We may need more Vit K postmenopausal

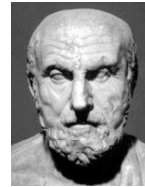
Sources Of Vitamin K

- Dark leafy green vegetables
- If supplementing, take Vitamin K with food (100-5– mcg/d)
- Do not take Vitamin K if you're on coumadin

Zinc

- Required for the formation of osteoblasts and osteoclasts
- Diets often fail to meet Zinc requirements (RDA 15 mg/d)
- Food sources include whole grains, meat, poultry, legumes
- Supplement with 10-30 mg/d balanced with 2 mg/d of copper
- Excessive amounts can lead to heart rhythm disturbances, abnormalities of cholesterol metabolism and impairments in immune function

**“Let food be your medicine
and medicine be your food.”
- Hippocrates**



Non-Hormonal Medicines for Bone Health

- SERMS
- Bisphosphonates
- Parathyroid hormone
- Calcitonin

Sylvia's Co-worker Charlene

Charlene is a 28 year old with complaints of feelings of tension and anxiety along with mood swings and periods of “just wanting to cry over nothing.” She also complains of low energy and “craving lots of bread” and “feeling out of control.” These symptoms seem to be really bad about 8 days before her periods and get better when she finally starts her period each month.

Sylvia's Co-worker Charlene

She's tried taking the birth control pill to help the symptoms but now she and her husband are trying to get pregnant and she's off the pill.

Sylvia told her all about you and Charlene wants to know if there's anything she can take to help her symptoms and is safe if she gets pregnant?

PMS

- Recurrent, cyclical set of symptoms that occur 7-14 days before menses and interfere with some aspect of a woman's life
- Estimated to affect up to 40% of women
- The exact cause is unknown
 - ? Deficiency of progesterone
 - ? high estrogen-to-progesterone ratio during the luteal phase
 - ? Prolactin levels
 - ? Aldosterone
 - ? Endogenous opiates

Diagnosis: Migraine Without Aura

- Headache attacks last 4-72 hours
- Headache has at least two of the following characteristics:
 - Unilateral location
 - Pulsating quality
 - Moderate or severe intensity
 - Aggravation by routine physical activity

Diagnosis: Migraine with Aura

- At least 3 of the following 4 characteristics are present:
 - 1) One or more fully reversible aura symptoms indicating focal dysfunction of cerebral cortex or brainstem.
 - 2) At least one aura symptom develops gradually over > 4 min, or 2 or more symptoms occur in succession.
 - 3) No single aura symptom last more than 1 hour.

Simple Screening Questions for Migraines

- During your headache, does light bother you?
- During headaches, do you feel nauseated?
- Do your headaches interfere with your ability to work, study or do the things you want to do?

Herbal Therapies for Migraines

- Feverfew
 - mixed studies, dosage 100-300mg/day of extract standardized to guarantee 600 mcg of parthenolide
- Butterbur
 - 50 mg to 75 mg of butterbur extract twice a day

Herbal Therapies for Migraines

- White willow bark
 - Standardized extract should provide 120-240 mg of salicin/d
- Co Enzyme Q 10
 - 150 mg q day used in studies

Recommendations for Angela

- Keep a headache diary
- Exercise, diet, sleep and relaxation
- If menstrual migraine, consider hormonal therapy and preventative measures
- Consider herbal preparations
- Consider prescription for triptan medication

Angela's Sister

Well, now you have quite the reputation in town as "the one to go to." Angela's sister, Mary, is 41 years old. She's coming to you for her "check up." From her history you learn she's married with a 9 year old daughter, is a vegetarian, exercises 5 times/week, does not smoke, drinks a glass of wine most nights and her only medication is OCP's. Her last check up was "a little over 1 year ago."

Importance of Hypertension

- Most common chronic disease in the US
- Linked to coronary heart disease (CHD/CVD)
- CHD is the number ONE cause of death in men and WOMEN
- Lifetime risk of CHD after age 40 is 49% in men and 38% in women
- Poor record of therapy

Integrative Medicine Approaches

- Green tea
- Meditation
- Co-Enzyme Q-10
- Dark Chocolate
- Garlic
- Ginkgo
- Hawthorn
- Red rice yeast

Green Tea

- 1500 subjects who drank 120 ml (one small cup) to 599 ml (three large cups) of tea per day showed a 46% decreased risk of developing hypertension compared with nonhabitual drinkers (consuming >600 ml /day reduced the risk by 65%)
- Minimum tea needed to help B/P appears to be one small cup/day for at least one year

Low Dose OCP's and CV Risk

- | No. of excess cases of MI and stroke attributable to OC | 20-24yr | 30-34yr | 40-44yr |
|---|---------|---------|---------|
| - Non-smokers | • 0.4 | 0.6 | 2 |
| - Smokers | • 1 | 2 | 20 |
| - Hypertension | • 4 | 7 | 29 |
-
- | No. of pregnancy-related deaths (per 100,000 live births) | 20-24yr | 30-34yr | 40-44yr |
|---|---------|---------|---------|
| | • 10 | 12 | 45 |
- (NEJM 2003; 349:1443)

Mary's "Other" Dilemma

I haven't really wanted to have sex lately....is there a "Viagra" for women?
How can I "boost my sex drive?"

A low sex drive is the most common sexual complaint made by women: up to 30%-40% of women.

Factors That Influence Libido

- Biology (age, illness)
- Quality of the relationship
- Attitudes of upbringing
- Support of peer group
- Quality of touch and sex
- Understanding of partners
- Use of medications
- Emotional well-being

Hypoactive Sexual Desire Disorder (HSDD)

- Viagra?
 - Studies in 3000 women found no conclusive results. Pfizer announced in 2007 it was ending research on viagra in women
- Testosterone?
 - Studies on testosterone patch *Intrinsa* (made by P & G) can increase sexual activity in 50-70% of women. Patch may be available “soon”
- Estratest? (off label use)

Hypoactive Sexual Desire Disorder (HSDD)

- Viagra? (nope)
- Testosterone? (may have side effects)
- Estratest? (off label use)
- Welbutrin?
 - 12 week study of 66 nonmenopausal women 39% reported being satisfied with their level of sexual activity
- Herbal remedies?

Dr. Weil’s 8 Week Plan For Optimal Healing Power

Week One

- Project—throw out all oils other than olive oil
- Diet—start eating some fresh broccoli and salmon, sardines or kippers
- Supplements—Vitamin C 1000 mg
- Exercise—walk 10 min/d on 5 days/week
- Mental/Spiritual—think about your own experience of healing and practice observing your breathing for 5 minutes and bring some flowers into your home

Week Two

- Project—find out where your drinking water comes from and stop drinking chlorinated water
- Diet—go to a natural food store and pick a soy food, try some green tea, eat fish at least once this week
- Supplements—beta-carotene 25,000 IU/d

Week Two

- **Exercise**—increase walking to 15 min 5X week
- **Mental/Spiritual**—visit a park, try a one day “news fast,” practice relaxation breathing (in for a count of 4, hold for 7 and out for 8)

Week Three

- **Projects**—find where to buy organic produce
- **Diet**—eat fish twice a week, replace one serving of meat with a soy food, eat an extra serving of fruits/vegetables
- **Supplements**—vitamin E 400 IU and selenium 50-100 mcg/d

Week Three

- **Exercise**—walk 20 min/d for 5 days/week
- **Mental/Spiritual**— make a list of inspirational books to read, make a list of friends you feel happy and alive with, buy or pick more flowers

Week Four

- **Project**—check on your bed/mattress and find out about an air filter for your home
- **Diet**—replace another meal of animal protein with soy protein, eat more garlic
- **Exercise**—25 min/d for 5d/wk

Week Four

- **Mental/Spiritual**—try more “news fasting,” continue the breathing exercise, contact a friend who has experienced healing or recovery from an illness or injury

Week Five

- **Project**—locate a steam bath or sauna you can use
- **Diet**—try a one day fruit fast, buy a piece of fresh ginger and make yourself some ginger tea, cut back on fat intake
- **Exercise**—30 min/d for 5d/week
- **Mental/Spiritual**—extend your news fast to 3 days this week, listen to a piece of music you find uplifting, bring in more flowers

Week Six

- **Project**—uncover stories of healing in your circle of friends, take a steam bath or sauna
- **Diet**—try a one day juice fast, eat broccoli 2 times this week, continue to eat fish and soy foods
- **Supplements**—try a tonic herb (ginseng)

Week Six

- **Exercise**—35 min/d for 5d/wk
- **Mental/spiritual**—extend your news fast to 4 days, visit an art museum, continue breathing exercises

Week Seven

- **Projects**—think about service work you can do, continue the steam baths or sauna
- **Diet**—fast one day with fruit juice, water and herbal tea, continue eating fish and soy
- **Exercise**—45 min/d of walking for 5d/wk

Week Seven

- **Mental/Spiritual**—reach out and resume connection with someone, make time for flowers, music, art and increase the relaxing breathing to 8 cycles twice a day

Week Eight

- **Project** - review the changes in your lifestyle for the past weeks
- **Diet** - try a one day water fast, think about how to continue the dietary changes
- **Supplements** - start taking your tonic
- **Exercise** - 45 min/d of walking 5 d/wk

Week Eight

- **Mental/Spiritual** - continue the breathing exercise, try a one week news fast, think of the people who have hurt you or made you angry and try to forgive and reward yourself with some especially beautiful flowers and buy flowers for someone else

Upcoming Program:

**Improving Disaster
Communications:
Connecting Poison Control
with Public Health
Tuesday, July 22
12:00 - 1:30 pm CT**

www.adph.org/alphtn