

Healthy Choices for Mind and Body Written by Ann Gerhardt, MD

Volume 3 Number 5 December 2008

Putting medical and nutrition news into historical, scientific and just plain practical context.

Dr G promises to make a concerted effort to actually write 5 issues in the next year, rather than 14 months. *Request a free email subscription or information about sponsorship at:*

algerhardt@sbcglobal.net.

Or send \$18 *for one year of newsletters to be mailed to you to: P.O.Box* 19938, *Sacramento, CA* 95819.

Read past articles at <u>www.drgsmedisense.com</u> New website for Healthy Choices, with index, still under construction.

Sponsorship information, page 8 You can support the educational efforts of Healthy Choices for Mind and Body, by making a *tax-deductible contribution* to **HCMB**, P.O.Box 19938, Sacramento, CA 95819.

Donate Your Efforts to Healthy Choices for Mind & Body on 1/19/09

President-elect Obama has proclaimed Jan 19, 2009, the day before Inauguration Day, a day to commit to doing your part for the country by donating time to charity work. If you would like to help Healthy Choices for Mind and Body, please contact Dr Gerhardt at 916-457-3466 or algerhardt@sbcglobal.net.

You can work from home, no matter where you live, or come to the Sacramento office to enjoy idea-sharing, camaraderie and snacks. We have quite a few projects that need help. from people with opinions, imaginations and personal stories. Teachers, artists, computer geeks and anyone who can just follow direction would be especially valuable.

Contents:		
Winter Reminders	page 1	
Help Healthy Choices	page 1	
Tea: A Healthy Gift	page 2	
Save a Life: Organ donation	page 3	
Rantings and Ravings	page 4	
Heart Scan Assesses Risk	page 5	
Amazing products to fix you page 7		
Mission, Donors, Products	page 8	
Sponsorship	page 9	

Healthy Choices Winter Reminders:

DO get a flu vaccine. Don't be the first on your block to die of influenza.

DO remember to be kind, even if times are tough – Peacefulness is healthier than anger.

DO eat hearty bean and vegetable soups this winter – They warm the soul and save your heart.

DO NOT use inclement weather as an excuse to avoid exercise. It's what they make mittens and umbrellas for.

DO take good care of your body and love your natural shape that results.

DO use high intensity, broad-spectrum lights if you have SAD (Seasonal Affective Disorder). They will make both you and those around you happier.

TEA, A HEALTHY GIFT

Bottom Line at the Top: Drinking 1 to 6 cups of green or black tea daily might reduce your risk of cancer, heart disease, tooth decay and high cholesterol. Excessive amounts can cause brittle bones and affect blood levels of medications.

Oh, the agony of holiday gift buying, especially for colleagues, neighbors and acquaintances, whose taste we can only guess. We could abdicate decision-making by giving a fat-laden food basket, and shorten the recipients' lifespan, eliminating years of searching for the perfect gift. Instead, pretend you care, with tea. Tea, along with those too-cute teapots and specialty tea-balls, fulfills your gift obligation with something cute, consumable, biodegradable AND potentially healthy.

Throughout the world, tea ranks second only to water as the most consumed beverage. In the U.S. it has always played second fiddle to coffee, perhaps the legacy of rejecting England at the Boston Tea Party in 1773. Stubborn folk, we Americans, it took us over 120 years to let tea make a come-back. Since the 1990's tea sales in the U.S. have more than quadrupled along with a proliferation of tea houses, specialty shops, and teas from far-flung origins.

People drink tea because of taste and custom: Health benefits are a pleasant extra. Though inconclusive research has led the **Food and Drug Administration to refuse to allow tea makers to make health claims**, evidence mounts for a role of tea in preventing cancer, heart and vascular disease, tooth decay and infection.

Since some of these benefits take 10 or more cups of tea a day, using tea to prevent disease probably isn't practical. But **tea heads us in the direction of health better than, say, Rock Star or Coke.**

All real tea comes from the *Camellia sinensis* plant, a white-flowered, sub-tropical evergreen. Producers pick the top few inches of the plant's leaves and leaf buds and create a variety of tea types by regulating how much the leaves oxidize after picking. After plucking, tea leaves oxidize via natural enzymatic reactions that result in distinctive color and taste characteristics. Heating tea leaves by steaming, roasting or pan-firing at pre-specified times stops oxidation by destroying the enzymes, and determines the type of tea.

White tea is the sun-dried, unopened, plant leaf. Tea leaves that are immediately heated, rolled and dried after picking to seal their contents are known as green tea. Leaves partially oxidized for 1-2 hours before heating



NANCY H. BERNHEIMER 25 YEARS EXPERIENCE

2580 Fair Oaks Blvd. #20 Sacramento, CA 95825

Ofc.: 916• 484-5407 Fax: 916• 484-7683 Res.: 916• 482-8832



creates Oolong tea. Black tea leaves are fully oxidized before the heating process.

Chai tea is a redundant term, since chai is the name for tea in some Eastern countries. In the West, chai is black tea that is brewed strong, diluted with milk, and combined with sugar and spices, like cinnamon, cardamom, cloves, pepper and ginger.

Flavored teas start with real tea and add spices or herbs. Herbal 'teas' are infusions of leaves, roots, bark, seeds or flowers of plants other than Ca*mellia sinensis*, so they are not tea. They lack many of the unique characteristics of tea and the research concerning health benefits of real tea does not apply.

Tea leaves contain more than 700 components, some of which are healthy. Tea has a few amino acids, vitamin C, vitamin E and enough vitamin K to interfere with Coumadin (warfarin) blood-thinning.

Tea contains bioflavonoids called catechins, believed to be responsible for tea's anti-oxidant and health benefits. The most studied and only standardized catechin is epigallocatechin-gallate (EGCG for short). Instant iced tea contains negligible amounts of EGCG. White and green teas contain more EGCG than does black tea, because of its partial destruction by oxidation.

Conversely, black tea contains more L-theanine, which seems to stimulate the immune system to better fight off colds and other infections. While tea extracts can be standardized to their EGCG content, tea itself cannot. Flavonoid potency varies with cultivation, manufacture and brewing techniques.

Tea contains the **toxic minerals** arsenic, chromium, cadmium and lead in variable levels, depending on where *continued on page 3*

Tea

continued from page 2

the tea was grown and how it was processed. While tea may increase zinc and selenium levels, it **reduces body iron** by preventing its absorption from food.

Tea also contains caffeine, theobromine and theophylline, all stimulants. The latter two open the airways in asthmatics.

Cancer: **Populations who drink more tea generally have fewer cancers of the mouth, breast, stomach, lung and skin.** We don't yet have a clear idea if the protection comes from tea or some other lifestyle habit of teadrinkers.

Some cancers start with oxidized or otherwise damaged cellular genetic material (DNA). In lab experiments, tea antioxidant bioflavonoids neutralize oxidant stress before cell injury can occur. Scientists postulate that tea inhibits cancer growth by decreasing and possibly repairing oxidant damage to our cells' genetic material. Four cups of tea daily reduces the excessive oxidative damage in heavy smokers' cells that might lead to cancer. Bioflavonoids can also bind to carcinogens, induce tumor cell death, arrest cell growth and halt spread to distant organs. In various animal studies green or black tea blocks growth of a variety of tumor types, including liver, stomach, and skin.

Human intervention studies are not uniformly positive. A large Netherlands study of more than 100,000 55-69 year olds found no link between tea consumption and protection against cancer, but many other studies find a benefit.

In China, a study of more than 18,000 men found that tea drinkers were about half as likely to develop stomach or esophageal cancer as men who drank little tea. Postmenopausal women in Iowa who drank two or more cups of tea per day developed fewer digestive and urinary tract cancers. Directly applied tea extracts partially shrink some pre-cancerous lesions of the mouth. Polish women who drank black tea daily had a reduced risk of stomach cancer. Japanese who drink large amounts of green tea are less likely to get stomach or esophageal cancer.

Continued on page 4







Tea continued from page 3

Japanese breast cancer survivors who drink more than 2 cups of tea per day are less likely to have a cancer recurrence. In Arizona, people who drink stronger tea have less skin cancer.

Weight: Some people promote tea to aid weight loss, but so far the evidence is weak. People who drink more tea tend to pack on less body fat, but it may be because they also practice other healthy habits, like exercising and eating vegetables. A few studies hint of a metabolismboosting effect of green tea over and above the caffeine effect, but the evidence is weak. We need more research before we can tout green tea as a miracle weight loss aid.

Consumers should *not* confuse black or green tea with "dieter's teas" advertised for weight loss. Those products contain senna, aloe, rhubarb root, buckthorn, cascara, or castor oil additives, which exert potent diuretic and/or laxative effects on the body. Besides leading to some serious bathroom time, they can screw up electrolytes and drop blood pressure in ways that might mess with the heart.

Arrhythmias: Tea contains caffeine, a stimulant that raises heart rate and blood pressure. It does not cause dangerous heart rhythms in people with normal hearts, but for those who already have irregular or rapid heart beats, less caffeine is better. Switching from coffee to black tea cuts caffeine intake from over 140 mg to about 50 mg, and the jump to green tea drops it further to 14-37 mg/cup.

Teeth: Forget the fluoride toothpaste and drink tea, which on average contains 0.78 mg of fluoride per 8-ounce cup. At 5-7 times the quantity in fluoridated water, but under the Environmental Protection Agency's safe upper limit, tea can be good for your teeth. It's good

Continued on page 5

Save A Life – Organ Donation

Bottom Line at the Top: No matter how young and healthy you are, make decisions now about organ donation and tell your family and doctor.

I admit it: I'm biased in favor of organ donation. I like to see our terminally ill heart failure patients receive a new lease on life. I like to know that a person who receives a new kidney can go off dialysis. Someone with new corneas can see flowers again. A cancer patient with a new bone marrow has a chance to finish college.

Sounds like a no-brainer, but in actual practice many functional organs never make it into those who need them, often because the dying individual never specified a preference about donation.

Don't put your family in the position of having to decide, or, worse yet, argue over your organs. Make your wishes known to those close to you now. Even if you don't like your next of kin, tell him or her, because that person will be making decisions over your future dead body. Or bypass the next of kin, put your wishes in writing and specify a Durable Power of Attorney for Health.

The best transplanted organs come from young donors, exactly the type of person who would not write down an organ donation preference. They don't expect death any time soon. Since the motorcycle helmet law, we have fewer donors, which is a good thing for motorcyclists, but has severely depleted the pool of donors.

That puts pressure on the rest of us to consider donation. Even if we are not young and healthy, we might be a perfect match for some dying person. One person's death could mean another's life, rather than two deaths.

Not every person qualifies as a donor, because of concern about organ viability and transmissible disease, but don't second guess your suitability. Let it be known that you are willing. You can even specify which organs you'll donate and which you wish to take to the grave. Let the organ procurement organizations and surgeons decide whether your organs will work or not.

A recent editorial in the NEJM examines the methods by which organ procurement professionals ask families to agree to organ donation. Some are caring and considerate. Some are downright manipulative. By whatever means, they seek to save lives in the face of a dwindling organ supply. Help your family and doctor avoid uncomfortable situations by making your preference known in advance.



Tea

continued from page 4

for hamsters, who have 64% fewer cavities if they drink tea instead of water. The only dangers might be discolored teeth and brittle bones from exposure to excess fluoride over time.

Bone: Tea packs a two-fer injury on bones. Caffeine lowers bone density and tea's fluoride causes abnormal calcium deposits, called osteosclerosis. Even though the bones look better bone density scan, they actually **fracture more easily because of their brittle structure.**

Heart: Tea drinkers seem to have fewer heart attacks than non-tea drinkers. Some investigators find that, in people with and without previous heart disease, drinking at least one cup of tea daily reduces subsequent heart attacks and the chance of dying, by up to 40%.

But not every study finds the same benefit with tea. Some studies even link tea to more heart problems. Lumping together 13 published studies of tea and heart disease, with both positive and negative results, an estimated 11 percent fewer heart attacks occur in those who drink three or more cups of tea per day.

How might tea keep the heart's arteries from closing off? EGCG seems to keep platelets from clotting and sticking to artery walls, where they could contribute to plaque build-up that clogs blood flow. Tea's effects on cholesterol and blood vessel relaxation might also protect against heart attack.

Lipids: Large doses of tea (more than 5 cups per day) or tea extract lower cholesterol levels in people who have a problem with high cholesterol.

Tea seems to attack cholesterol and triglycerides (fat in the blood) in three ways. First, high doses of EGCG or tea partially block absorption of fat and cholesterol from food.

Second, in lab experiments tea's bioflavonoids keep the *continued on page 7*

Ranting and Raving about Exercise & Society an editorial

What will it take to get people moving their bodies enough to preserve their health??? Is it going to take gas prices of \$10 a gallon to get people out of their cars and using muscular propulsion? I'm probably one of the three people who are unhappy with the recent gas-price decline. I rather liked the bump in transit use and number of cyclists on the roads.

What will it take to get people to realize that our health insurance rates will decline if people move enough to avoid chronic disease? -that we might have less road-rage if fewer people drive and more dissipate their stress with physical activity? -that productivity will improve if we sleep better and have clearer minds?

It wasn't polite requests that got people to buckle-up. It took seat belt laws. Smoking hasn't declined because people woke up and discovered it was harmful to their health. It has taken years of anti-smoking campaigns, public-place prohibitions to save non-smokers' lives and a culture of smoking-is-ugly, to vilify tobacco.

Do we need legislated pedestrian-friendly neighborhoods for it to be safe for children to play outside and walk to school? When will mixed-use communities come back into favor, so we can remember that it might be possible to use our feet or transit shop and commute? Getting out of cars and onto our feet might even reduce pollution enough to save a young child from an asthma attack and you from a heart attack.

Whatever happened to the concept of personal responsibility for health (or anything else)? I'm all for helping people who can't help themselves, but I'd prefer that more of us work harder, earlier, to avoid needing medical help.

We need to put money into transit, rather than roads, build multi-use, walkable communities, rather than living places (suburbs) far away from working places, tax the @#\$% out of cigarettes and gasoline (to pay for the health consequences of using them), and create a society that reveres two-footed over four-wheeled propulsion.

Many of physical activity's benefits can't be "proven" because they can't be neatly quantitated in ways satisfy our statistic-addicted bean-counters. But moderate exercise, volumes of vegetables and psychological peace go a long way to avoiding pills and hospitals. It might just be possible that other countries which spend less on healthcare but achieve better health outcomes do it through people moving more and eating smarter.-

Heart Scan: Assess Cardiac Risk

Bottom Line at the Top: If you are not sure of your heart disease risk, you might want to do a heart scan that measures coronary artery calcium content, but recognize that the test is not a perfect predictor of heart attacks.

A relatively new technique called coronary artery calcium (CAC) screening helps to determine your risk of heart attack. Diseased coronary arteries grow what is called 'plaque,' patches of brittle blood vessel wall, in response to inflammation, clotting and high cholesterol. Calcium tends to deposit in plaque. Capitalizing on the assumption that calcium equals plaque, doctors are using a special kind of ultra-fast CT scan to detect calcium in coronary arteries. They score the amount of calcium in each artery and calculate a global CAC score. This CAC score reasonably, but not perfectly, reflects a person's heart attack risk.

People under 50 years old should have a zero CAC score and any positive score should raise red flags in that age group. A score above 400 denotes greater risk of dying from heart disease, but the test can't tell you when. CAC score helps to stratify the risk of already high-risk patients such as diabetics and smokers, but if we know they have high risk, do we need to do the test?

In 2007, the American College of Cardiology Foundation, along with the American Heart Association, published guidelines regarding the use of CAC. These recommendations, which were published in the February 20, 2007, issue of *Circulation*, do not favor the routine use of CAC screening among adults already known to be at low or high risk for coronary heart disease events. They suggested that CAC screening was most helpful among patients with an intermediate risk for coronary heart disease.

I would also test people with unclear risk – For example, someone with high cholesterol who follows a very healthy lifestyle and has no family history of heart disease might want to know their risk before starting cholesterollowering medication. Among these indeterminate-risk patients, a higher CAC score could prompt more aggressive treatment of cholesterol and other risk factors.

Arterial calcium accumulates with age, so it would seem that the test would be redundant in the elderly. A recent report suggests the contrary, with some aged people having very little coronary calcium and some with a lot. Currently doctors use older age (>50) as a risk factor, assuming that an aged person's coronary arteries are more likely to clog than those of a young person. Since the study proves that not all aged people are alike, the authors



believe that coronary calcium screening should be substituted for age in risk calculations.

CAC score sometimes misses the mark. I have a patient with high cholesterol and a very strong family history of heart disease. His score at age 42 was zero, but within a year he had had a heart attack. Clearly CAC is not a perfect predictor.

On the other end, when someone has a high score, what do we do? If we use the test to determine which people need to have aggressive cholesterol and risk-factor reduction, a high number helps point us in the right direction.

But when do we say, "You are at risk of a heart attack today" and do further testing? Some cardiologists do stress testing only in patients with high CAC scores who have chest pain. That misses the significant percentage of women and elderly who have atypical symptoms or no chest pain in the face of significant coronary narrowing.

Others do a stress test in all people with high scores. If negative, they treat patients with aspirin and aggressive cholesterol-lowering medications. But stress testing gives false negative results in 10% of men and 25% of women. A major question remains: Is there a CAC score high enough to lead to a coronary angiogram?

Othello: "Our bodies are gardens and our minds are the gardeners." William Shakespeare

Tea

continued from page 5

bad (LDL) cholesterol from oxidizing, which makes it dangerous and likely to clog arteries. The effect is weak in a live person, but might help.

Third, tea stimulates cells to clear fat from the blood in the same way that the fibrate class of medication class does. Black tea is more effective than green or oolong tea, so EGCG plays at best a partial role.

Blood vessels: In lab tests on isolated blood vessels, EGCG relaxes blood vessel walls. In intact humans, diets high in bioflavonoids from all sources (including tea) or four cups of black tea a day improve blood vessel function, allowing them to constrict and relax appropriately.

One might think that this would help blood pressure, but tea drinkers do not uniformly have lower pressure. Perhaps tea's caffeine and theobromine content raise pressure enough to offset the bioflavonoids' blood pressure benefits.

Diabetes: In small studies of diabetics, those who drink six cups of tea daily can lower their blood sugar by 15 – 20%. Whether the tea works directly or by filling up their stomachs so they eat and drink fewer calories is unclear. **Tea probably helps diabetics more through its effects on blood vessels, lipids and anti-oxidation than by directly lowering blood sugar.**

Infectious disease: Black tea's L-theanine primes certain types of immune system cells to fight off colds, the flu and diarrheal illness. It augments bacterial killing by antibiotics. An experimental de-caffeinated tea containing extra L-theanine and ½ the usual amount of EGCG allowed people to recover from the colds much sooner than with placebo, reducing days of symptoms by one-third.

Drug metabolism: Green tea partially blocks drug and toxin clearance mechanisms, known as CYP3A4 and P-gp. If these are blocked, drugs that require them for clearance from the bloodstream might accumulate in toxic levels. For example, a case of a green tea drinker developing severe muscle damage from high simvastatin levels (a drug for cholesterol) has been reported.

Adverse side effects: As already mentioned, tea might cause lower blood iron levels, exposure to the toxic minerals arsenic, chromium, cadmium and lead, enough vitamin K to influence Coumadin effect, higher levels of medications that use CYP3A4 for metabolism, brittle bones and brown teeth. It would seem that moderation in tea, to reap health benefits without toxicity, would be best. **Take a break:** Even if tea won't prolong your life, taking time for a relaxed afternoon cup of tea jump-starts the second half of the day. For most people, mid-afternoon is slump time. A complete break from high gear to enjoy the warmth and ceremony of tea refreshes the soul for the day's last inning. $\frac{1}{2}$

Consultations by Dr Gerhardt Author of DrG'sMediSense Newsletter

*Internal Medicine *Nutrition *Eating disorders *Review your medical regimen

Will bill Medicare or will supply paperwork for you to be reimbursed by your insurance.

Call 916-457-3466 or email algerhardt@sbcglobal.net

Amazing products to fix you?

Shape Magazine, the you-are-never-thin-or-beautifulenough rag that masquerades as a women's health magazine, contains some truly bizarre product ads:

- YogaToes (a \$49.95 plastic spacer which allows your feet to do yoga while you relax);
- Facial Flex Ultra (a 'proven' device to tone facial, chin and neck muscles for a mere \$59.95);
- Push-up Jeans That Fit Your Body Type (apple or pear) and "flatter your assets and correct flaws;

All promise you a new body by relieving you of some hard-earned money. They probably aren't dangerous.

On the other hand, a product called Meltdown claims to increase metabolic rate 972% greater than 20 mg of ephedrine, which was banned as unsafe. They don't tell you how many people it has killed. The ad claims that it is the "potent Fat Assault Matrix for fast fat loss and a leaner and sexier physique". The photos seem to promise to take you from a 7 months-pregnant look to a wedding gown in no time. \exists

Healthy Choices for Mind and Body Mission

Promote the vision of a world in which all people practice healthy lifestyles by:

- Educating children and adults to understand the components of healthy lifestyles and how to incorporate those components into their own lives;
- Changing standards of beauty and health to those that do not define us by our weight and do not promote eating disorders, including anorexia, bulimia, binge eating disorder, and compulsive overeating that may lead to obesity; &
- Interpreting health-related news within the context of existing medical knowledge to enable individuals to apply it to their own lives.

Dísclaímer

Think first, before you act: Because you are an extraordinary manifestation of a tangle of unique genetic material, think first, before applying any or all of this newsletter's information to your life choices. Dr G's just trying to interpret medical and nutrition news for you - within the framework of information already known and the limitations of how the studies were done. Articles this size can't possibly contain every bit of information published on a subject. Distillation may leave some things out: Hopefully not crucial pieces. Don't crucify me if some new tidbit of information comes along that contradicts what I wrote. This newsletter offers some insight, not The Cure. PLEASE discuss any changes in therapy or lifestyle with your doctor. Subscribing to this newsletter presumes that you accept your own risk when making decisions about your health. Feel free to send questions or comments. Feedback and change are good

We Thank Our Donors Carol Schanz Pat & Steve Kahn And those whose ads appear in this issue.

Healthy Choices for Mind and Body Products and Services

"Healthy, Happy Shapes, It's Not How You Look, It's How You Feel"

35 minute video and set of 5 lessons. Each lesson accompanies a discrete section of the video. The 5 topics are Body image, Healthy Nutrition, Physical Activity, Psychological issues predisposing to eating disorders and Dangers of Eating disorders.

"Positive Body Image and Healthy Bodies" WINS Grade School Lesson Sets

Each containing lessons that address healthful eating, physical activity, self-esteem, media image vs. reality, and natural body shape acceptance.

Grades 1 & 2: Lesson book, teacher background information with video, & classroom posters. Grades 3 & 4: Lesson book, teacher background information with video, student video & classroom posters.

Grades 5 & 6: Lesson book, teacher background information with video, before and after pictures that illustrate photographic touch-up techniques & classroom posters.

Classroom and community talks for all ages. Booth posters and educational activities for health fairs.

Support Healthy Choices for Mind and Body and its work through WINS and DrG'sMediSense Newsletter with a donation of any size.

Donor: \$35 or more: You will be listed as a Sponsor in DrG'sMediSense Newsletter. For \$50 or more you will also receive a free "Life is Worth Living" bracelet, and a mailed copy of DrG'sMediSense Newsletter

Healthy Choices Advocate: \$100 or more: All of the above, plus a free "This is a Natural Shapes T-shirt and WINS video/lesson set donated to the organization of your choice.

Healthy Choices Special Friend: **\$150 or more:** All of the above, plus VIP entry to Healthy Choices for Mind and Body events.

Healthy Choices Education Patron: **\$500 or more:** All of the above, plus a talk by Dr Gerhardt to the group of your choice (plus travel).

Contact HCMB at <u>algerhardt@sbcglobal.net</u> for information about advertising sponsorship in DrG'sMediSense Newsletter, or leave a message at 916-457-3466

Name _	Telephone	
Address_	· · · · · · · · · · · · · · · · · · ·	Make checks payable to: Healthy Choices for Mind & Body P.O.Box 19938
Email _		Sacramento, CA 95819
Donation amount		
I do	do not want my name listed as a sponsor in DrG's	MediSense Newsletter.
Donors of \$100 or more: I do do not want a "This is a Natural Shape" t-shirt. Specify size: Small Medium Large XLarge		
We will contact you for the name & address of your recipient for educational material.		
Donors of	f \$150 or more: Look for your invitation!	
Donors of \$500 or more: We will contact you to schedule Dr Gerhardt's talk.		