

Cutting Edge Nutrition in Private Practice

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Your body may be a temple, but who says it can't be a nightclub?

The Inflammation-Aging Connection

- Inflammation is the final common pathway in aging and weight gain.

The Inflammation-Aging Connection

Dietary Factors

- ❖ Glucose
- ❖ Fats
- ❖ Arachidonic Acid

The Inflammation-Aging Connection

Omega-3 Family

1. Alpha-linolenic Acid (LNA)
2. The enzyme *delta-6-desaturase* turns LNA into Stearidonic Acid
3. *delta-6-desaturase* requires sufficient B6, magnesium, zinc
4. Stearidonic Acid
5. The enzyme *elongase* turns Stearidonic Acid into Eicosatetraenoic Acid
6. Eicosatetraenoic Acid
7. The enzyme *delta-5-desaturase* converts Eicosatetraenoic Acid into Eicosapentaenoic Acid (EPA)
8. *delta-5-desaturase* requires vitamin C, niacin, zinc and prefers to convert the Omega-3 oils
9. Eicosapentaenoic Acid (EPA)

www.asthmaworld.org

The Inflammation-Aging Connection

Environmental Factors- Mercury Toxicity

“Almost all people have at least trace amounts of methylmercury in their tissues, reflecting methylmercury’s widespread presence in the environment and people’s exposure through the consumption of fish and shellfish.”

-US Environmental Protection Agency, 2006

The Inflammation-Aging Connection

Environmental Factors- Mercury Toxicity

“Methylmercury is a highly toxic substance; a number of adverse health effects associated with exposure to it have been identified in humans and in animal studies. Most extensive are the data on neurotoxicity, particularly in developing organisms. The nervous system is considered to be the most sensitive target organ for which there are data suitable for derivation of an RfD.

-US Environmental Protection Agency, 2006


The Inflammation-Aging Connection

Nutrition Rx:


- ❖ **Anti-inflammatory diet**
- ❖ **Anti-inflammatory nutritional supplements**
- ❖ **Lifestyle Changes**

How Does the Aging Process Begin?

- Free radicals cause oxidative stress
- This leads to tissue damage aging and disease



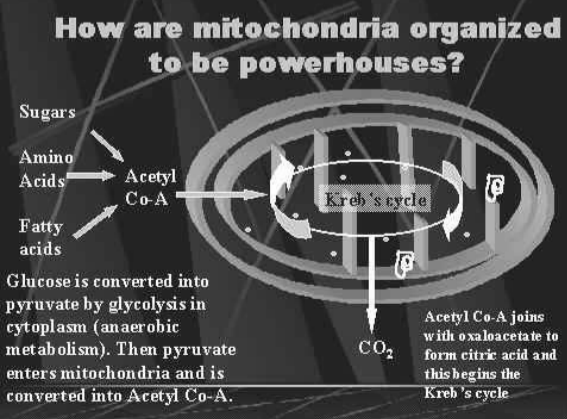
Mitochondria are the major source of free radicals and Reactive Oxygen Species



“The nightclub that stays open all night long!”

The Inflammation-Aging Connection

How are mitochondria organized to be powerhouses?



Sugars
Amino Acids
Fatty acids

Acetyl Co-A

Kreb's cycle

CO₂

Glucose is converted into pyruvate by glycolysis in cytoplasm (anaerobic metabolism). Then pyruvate enters mitochondria and is converted into Acetyl Co-A.

Acetyl Co-A joins with oxaloacetate to form citric acid and this begins the Kreb's cycle

Oxidative Injury

- Free radicals are typically oxygen molecules with unpaired electrons created as a byproduct of normal oxygen consumption. Free radicals damage intracellular molecules by breaking critical intramolecular bonds, leading to extensive cell injury and cell death.
- A single circulating free radical in the cell can damage tens or even hundreds of enzymes, membranes, or DNA molecules through a destructive chain reaction of chemical damage that cascades through a cell until it is ultimately quenched.

The Formation of Free Radicals

In the mitochondria, food is converted to energy.

↓

About 5% of that energy turns into reactive oxygen species.

↓

Free radicals are then produced.

The Formation of Free Radicals

In a normal cell: Endogenous cellular antioxidants such as enzymes (superoxide dismutase and catalase) and small molecules (glutathione, vitamins C and E) have evolved to help protect cells and reduce oxidative free-radical injury when the number of free radicals in the cell is small.

The diagram shows a cell with a nucleus containing DNA and a mitochondrion. The mitochondrion is labeled 'Mitochondria converts O₂ to H₂O and some ROS'. ROS (Reactive Oxygen Species) are shown as small circles. Endogenous antioxidants like Superoxide Dismutase and Vitamin E are shown neutralizing the ROS. The text states: 'Endogenous antioxidants such as Vitamin E or SOD neutralizes the ROS' and 'Critical cellular molecules are protected'.

The Formation of Free Radicals

In oxidative injury or disease: When animals age and in certain disease states, the levels of the endogenous cellular antioxidants decline and the free radicals produced can overwhelm these protection systems.

The diagram shows a cell where the mitochondrion is labeled 'Mitochondria produce excess ROS'. ROS are shown in much higher concentration than in the normal cell. The text states: 'Endogenous antioxidants overwhelmed by the massive amounts of ROS' and 'Critical cellular molecules are chemically destroyed'.

The Formation of Free Radicals

- **Nutrition. 2006 Jul-Aug;22(7-8): 767-77.**
-Taking Vitamin C and E, zinc, selenium and beta-carotene-enriched biscuits for 15 weeks improved functions and decreased oxidative stress of leukocytes from prematurely aging mice.

CONCLUSION:
"Adequate levels of antioxidants from adulthood may be useful to attain healthy aging, especially in animals with premature aging."

Protection Against Free Radicals

- Compounds characterized as antioxidants bind and deactivate free radicals and greatly reduce the extent of damage caused by each free radical.
- Endogenous cellular antioxidants, such as vitamin E analogs and superoxide dismutase enzymes, are sufficient to inactivate the low levels of free radicals circulating under normal circumstances, but inadequate to achieve meaningful therapeutic impact in diseases that result in excess free radical production.

Cellular Aging

- Cells age when the membrane becomes stiff and inflexible, and nutrients can no longer penetrate the cell.
- When thick and stiff, the membrane can no longer pass waste from the cell, either.
- The wastes build up and cause our enzyme systems to slow down until we are unable even to replicate DNA or RNA.
- When the cell membrane loses fluidity, receptor sites for hormones and neurotransmitters cannot function.
- And THIS is how the cell ages! (Not to mention the difficulties with detoxification....)

Antioxidants Quench the Free Radical Fire

“A dietary antioxidant is a substance in foods that significantly decreases the adverse effects of reactive species, such as reactive oxygen and nitrogen species, on normal physiological function in humans.”

-Food Nutrition Board, Institute of Medicine, National Academy of Sciences. Dietary Reference Intakes For Vitamin C, Vitamin E, Selenium, and Carotenoids. p 42; 2000.

Dietary and Endogenous Sources of Antioxidants

- Vitamin C
- Vitamin E
- Carotenoids
- Polyphenols (Flavanoids)
-)
- Selenium, Copper, Zinc, Manganese
- R- α Lipoic Acid
- Low molecular weight thiols:
 - Cysteine, Methionine, Glutathione
- Co-enzyme Q10

Dietary and Endogenous Sources of Antioxidants

- Thiols are sulfur-containing compounds that are VITAL in helping the body detoxify itself on a daily basis.
- Proteins are precursors to thiols and therefore act as SYSTEMIC ANTI-TOXINS!

The Inflammation-Aging Connection

Spinach is the richest source of alpha-lipoic acid~ yet Popeye would have to eat 7 lbs of fresh spinach per day to get 1 mg of alpha-lipoic acid!

The Inflammation-Aging Connection

Alpha Lipoic Acid

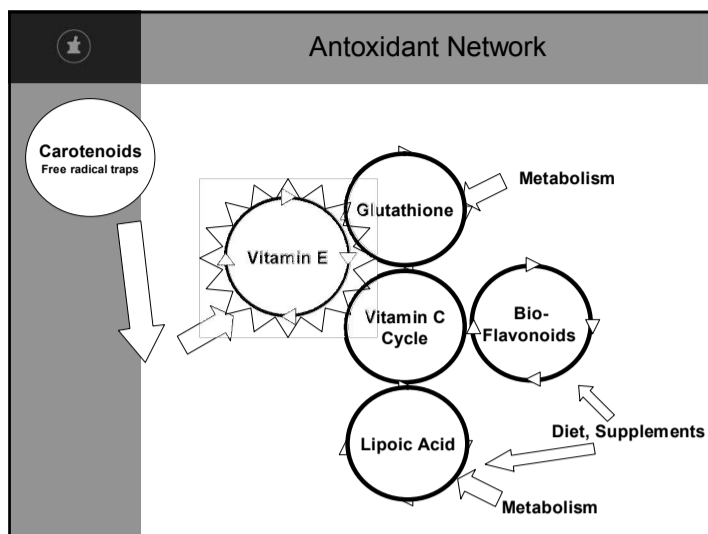
- ▶ Lipoic Acid is an antioxidant with diverse therapeutic effects.
- ▶ Lipoic Acid is found in mammalian cells bound as an enzyme complex and is not available as an antioxidant.

The Lipoic Acid Bandwagon began after the report that exogenous lipoic acid was a potent antioxidant.

Status: May 2004
Sources: Medline; Embase; Derwent Drug File

Since 1998 the number of publications has more than doubled.

Modified from Tritschler H, Samigullin R; *New Insights in the Pathogenesis, diagnosis and treatment of diabetic neuropathy*



The Inflammation-Aging Connection

Alpha Lipoic Acid

- ▶ Depletion of Vitamin C and Vitamin E during oxidative stress can be prevented by Lipoic Acid administration.
- ▶ Vitamin C and glucose enter cells using the same carrier mechanism and thus can compete causing a Vitamin C deficiency.

Before
After
- ▶ Lipoic Acid can be protective when this occurs.

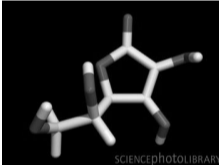
The Inflammation-Aging Connection

Alpha Lipoic Acid

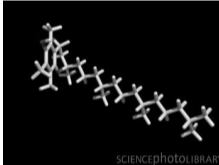
- ▶ Lipoic Acid has diverse therapeutic effects in many organ systems.
- ▶ Lipoic Acid has been used for treating liver cirrhosis, atherosclerosis, and polyneuritis of diabetes mellitus.
- ▶ Dietary administrations of Lipoic Acid ^{Before} protects ^{After} against neurological disorders and ^{28 Days Wrinkle Free Program} mushrooms.

Antioxidants to the Rescue!

- Antioxidants are key players in preventing free radicals from wreaking havoc on our precious cells.
- Antioxidants are molecules which can safely interact with free radicals. They prevent cellular damage -- the common pathway for cancer, aging and a variety of diseases.




Vitamin C



Vitamin E

Antioxidants to the Rescue!


- Antioxidants also act as natural anti-inflammatories, fighting disease, combating illness, and repairing our cellular membranes.
- Antioxidants help quench the fires within our cells that support a chronic inflammatory state.



Skin Protection From Within

Carotenoids:


- Beta carotene decreases the skin's susceptibility to sunburn.
- Good sources of beta carotene include: Dark red, orange, and green-colored fruits and vegetables.



Skin Protection From Within


Carotenoids:

- Lycopene is a great example of a carotenoid that helps to protect the skin from adverse effects of free radicals.
- Tomatoes are one of the best sources of lycopene.




Skin Protection From Within

- Carotenoids work even better when combined with other antioxidants, such as vitamins C and E.




Dietary and Endogenous Sources of Antioxidants



Astaxanthin


Dietary and Endogenous Sources of Antioxidants



Astaxanthin

Antioxidants and Free Radicals


- Astaxanthin, another powerful antioxidant that is part of the carotenoid family, has been found to protect the skin from UV damage.
- It protects the skin's DNA from being harmed.
- It is found in algae and seafood.
- It gives salmon, lobster, and shrimp that orange-red color.



Antioxidants and Free Radicals

- Astaxanthin has been proven to inhibit melanin synthesis that leads to permanent pigmentation from the sun.
- Skin pigmentation such as stains and freckles are caused by excessive uneven production of melanin.
- Taking Astaxanthin on a daily basis will therefore act as an internal sunscreen.

Dietary and Endogenous Sources of Antioxidants



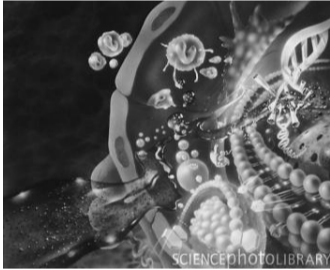
Green Tea may prevent sun-induced skin damage. The most powerful antioxidant compound present in green tea is epi-gallocatechin gallate (EGCG).

Sunscreen From Within

- In a case study researched at Case Western Reserve University in Cleveland, OH, it was found that green tea extracts are also beneficial if they are applied to the skin. Today, an escalating amount of skin-care products are beginning to contain green tea extracts.
- To obtain this benefit, at least 4 cups of green tea need to be drunk a day. Note that weaker iced-tea is not effective in receiving this benefit.
- We can think of green tea as a *supplement* for sunscreen, not as a *substitute* for it.

Vitamin E

- Vitamin E is known to protect skin cells from free radicals formed during and after UV exposure.



Free radical cellular damage

Vitamin E


The benefits of Vitamin E do not just stop at skin health:

- Lowers cholesterol and blood pressure
- Decreases risk of stroke
- Enhances the immune system
- Protects the cell plasma membrane
- Prevents cataracts
- Decreases the symptoms of Alzheimer's Disease
- Prevents heart attacks

Vitamin E

- Anti-inflammatory Food Sources of Vitamin E:

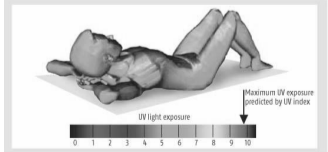
- Almonds
- Asparagus
- Hazelnuts
- Olives
- Pecans
- Spinach
- Sunflower seeds



Sunscreen from Within


- Vitamin C plays a role in maintaining healthy skin.
- Vitamin C levels in the skin are depleted by UV exposure, and a higher intake for this vitamin is needed to compensate for the loss after spending a long time in the sun.

UV WARNING
Peak UV exposure can be higher in some places on the body than predicted by the UV index



Sunscreen From Within

The fat-soluble vitamin C Ester is *not* depleted from our skin after sun exposure, and is therefore the best form to take as a supplement.



Sunscreen From Within


Vitamin C has other benefits besides sun protection:

- Promotes collagen production
- Essential for functioning of neurotransmitters, including dopamine, serotonin, and acetylcholine
- Accumulates inside white blood cells to maintain a strong immune response
- Defends against free radicals in the skin created by sunlight, ozone, and harsh chemicals
- Accumulates in the central nervous system to fight free radical activity

The Inflammation-Aging Connection Theory


Inflammation may be caused by:

- Eating a pro-inflammatory diet (i.e., high glycemic carbohydrates)
- Environmental stressors
- Weakened immune system
- Excess exposure to ultraviolet light
- Hormonal changes
- Stress




The Inflammation-Aging Connection Theory

- ❖ This sub-clinical inflammation goes on day after day, year in and year out, leading to disease states as well as the disease of aging. In fact, aging is a chronic, uniformly progressive, inflammatory disease that is always fatal.
- ❖ Our food choices are critical when it comes to causing and controlling inflammation. This is good to know because it actually means we are *in control* of the situation! This is the key to health, longevity, mental clarity, well-being and beautiful youthful skin.




The Inflammation-Aging Connection Theory

- ❖ Foods that are pro-inflammatory, such as **all forms of sugar, processed foods, pasta, breads, pastry, baked goods, and snack foods such as rice and corn cakes, chips, pretzels, etc.**, cause a highly destructive pro-inflammatory response in our bodies.
- ❖ If we choose sugary or starchy foods, we trigger this pro-inflammatory release of sugar into our bloodstream, which causes our body to store fat rather than burn it for energy.




The Inflammation-Aging Connection Theory

- ❖ The result? Acceleration of the aging process of all organ systems in our body, including the skin, causing an increased risk of degenerative disease and inflexible, wrinkled, sagging skin.
- ❖ In addition, by eating that muffin or couple of cookies, the resulting insulin response triggers our appetite—causing us to crave more and more of these types of carbohydrates, resulting in a vicious cycle of overeating.



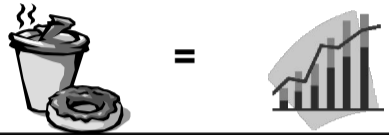
The Inflammation-Aging Connection Theory

❖ After indulging in the wrong types of carbohydrates, in a matter of hours your "feel-good" brain chemical, serotonin, will drop dramatically. These pro-inflammatory sugary, starchy foods will not only cause weight gain, wrinkles and fatigue—they will put you in a bad mood! And if you are suffering from PMS you can be assured that these foods will magnify all the symptoms one hundred fold.



The Inflammation-Aging Connection Theory

❖ Fortunately we can control inflammation in our bodies. It starts with the very foods we eat. All we have to do is avoid foods that provoke a "glycemic" response in the body, i.e. cause a rapid rise in blood sugar.




Tips for Changing Your Diet



Tips for Changing Your Diet

- ✓ Eat your protein **FIRST** at each meal and snack. Protein is the only nutrient that shuts off the hunger mechanism in the brain.
- ✓ Protein also stabilizes blood sugar and blunts potential spikes in blood sugar after a meal.

Tips for Changing Your Diet



Wild Alaskan Salmon is a superb form of protein.

Tips for Changing Your Diet

- ✓ Wild salmon have higher levels of oil content than farmed salmon due to thousands of years of natural selection providing them with the fat reserves necessary to migrate and spawn thousands of miles.
- ✓ The oil contains high levels of Omega-3s, the unsaturated fat that helps fend off heart disease, psoriasis, rheumatoid arthritis, breast cancer and migraines.
- ✓ Unlike nearly all farmed salmon, wild Alaskan Sockeye salmon, for example, grow free of antibiotics, pesticides, synthetic coloring agents, growth hormones and GMOs.



Tips for Changing Your Diet

- ✓ Remember this key fact: we cannot store protein in our bodies. If you want to keep your face and body firm, toned, lithe and supple, you need to provide it with a fresh supply of high quality protein every day.
- ✓ The best protein sources are low mercury, cold water fish such as wild Alaskan salmon and halibut. What makes fish stand out from other excellent protein sources is its type of fat and fatty acid content, both of which have powerful anti-inflammatory effects.



Tips for Changing Your Diet



Use fresh and dried herbs and spices liberally.

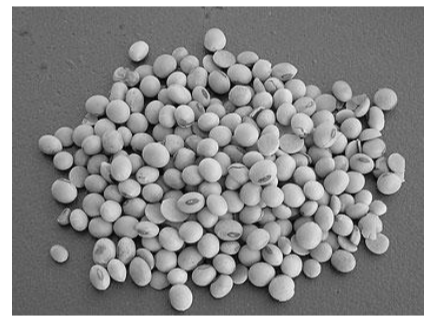


Tips for Changing Your Diet

- ✓ Oregano, ginger, cayenne pepper, basil, marjoram, turmeric, garlic and cinnamon, are all wonderful herbs that should be incorporated in your diet on a regular basis.
- ✓ All of these foods perform many age-fighting functions ranging from antioxidant, anti-inflammatory abilities to the regulation of blood sugar.



Tips for Changing Your Diet



A diet rich in high-fiber foods is indispensable in controlling unwanted weight gain.



Tips for Changing Your Diet

- ✓ Incorporate high-fiber foods into your diet such as apples, barley, beans, lentils and other legumes, fruits and vegetables, old-fashioned oatmeal and oat bran.



Tips for Changing Your Diet



Drink eight to 10 glasses of water every day. All biological functions in the body take place in water.



Tips for Changing Your Diet

- ✓ Water is essential for the removal of wastes and toxins. If you don't drink water, you cannot metabolize fats.
- ✓ A dehydrated body also provokes the development of aging and inflammatory compounds.



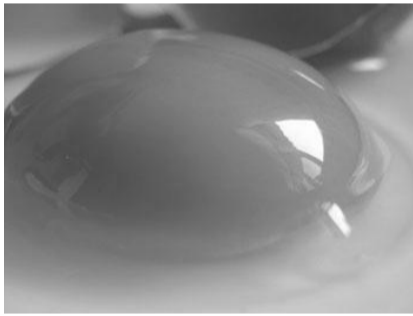
Tips for Changing Your Diet



Choose organic, free-range chicken and turkey for superior flavor and to avoid the antibiotics and processing of regular, commercially raised poultry.



Tips for Changing Your Diet



Choose eggs from cage-free chickens that are fed diets high in the omega-3s, such as flaxseed. These eggs are now widely available and are a much healthier choice than conventional eggs.



Tips for Changing Your Diet



Buy organic. Pesticides can leave toxic residues on plants that can harm your organ systems.



Tips for Changing Your Diet



Add yogurt or kefir to your daily diet.



Tips for Changing Your Diet

- ✓ Blend plain yogurt or kefir with fresh berries, pomegranate juice or açai, the antioxidant-rich berry from the Amazon.
- ✓ This will not only help your intestinal tract; research has shown that these foods promote weight loss and even fight bad breath!



Tips for Changing Your Diet



When possible add raw garlic, scallions, chives and onions to salads and other dishes.

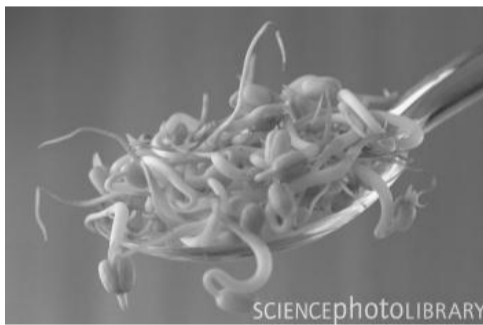


Tips for Changing Your Diet

- ✓ Garlic, onions, leeks and chives contains substances that stimulate the production of glutathione (the liver's most potent antioxidant).
- ✓ Glutathione enhances elimination of toxins and carcinogens, putting the Allium family of vegetables at the top of the list for foods that can help prevent cancer.



Tips for Changing Your Diet



Enjoy a wide variety of sprouts, which are very low in calories but very high in age-fighting antioxidants.



Tips for Changing Your Diet



Buy your produce according to color—the brighter the better! Colorful plants usually have the most antioxidants.



Tips for Changing Your Diet




When choosing lettuce for salads, the darker green the better.



Tips for Changing Your Diet

- ✓ Choose romaine, mixed baby greens, mesclun, arugula, kale, spinach, escarole, broccoli rabe, etc.
- ✓ Avoid iceberg lettuce. Iceberg has very little nutritional value compared to the darker greens.

Tips for Changing Your Diet




Nuts and seeds make a great addition to salads and stir-fries.

Tips for Changing Your Diet

- ✓ If you want to dramatically decrease your risk of cancer, heart disease and diabetes, decrease your risk of cancer, heart control your weight with no hunger pangs and reduce the visible signs of aging (such as wrinkles and sagging skin), go for nuts.
- ✓ The research on nuts and health clearly shows that people who add nuts to their diet will satisfy their hunger more quickly, leading to a reduction in overall caloric intake, helping you to shed unwanted pounds, while enjoying increased energy health benefits.
- ✓ A dab will do ya— ¼ cup of nuts is the right size.

Tips for Changing Your Diet



We all have the brain-beauty connection: nutrients that are good for the brain are good for the skin.

Tips for Changing Your Diet

The Whole Truth

The best foods for us to eat are the ones that are minimally processed—by this I mean foods that don't have additives and aren't heavily packaged. You know, like fresh fruits and veggies, raw nuts and seeds, avocados, whole grains, and proteins. Whole foods are richer in nutrition and contain more vitamins and minerals than their processed counterparts. The body is genetically equipped to break down the foods that it can recognize, as opposed to processed foods, which are much harder for the body to digest and assimilate. Don't worry if you can't eliminate all processed foods; every little thing you do will make a *big* difference.

-Esther Blum, *Secrets of Gorgeous*

IN OTHER WORDS, IF YOU CAN'T ID IT, DON'T EAT IT!!

Tips for Changing Your Diet


- ✓ Avoid foods that are processed or that contain trans fats, added sugars (such as high-fructose corn syrup), coloring, preservatives, fillers, stabilizers and chemical additives.
- ✓ Try to shop in the health food section of your supermarket—but even here, remember to read the label!
- ✓ Also look for organic labels for foods that have not been raised with any hormones, pesticides, or antibiotics.

Anti-Aging Foods



Other good sources of protein (choose low fat varieties if weight is a concern): Plain yogurt, high essential fatty acid eggs, plain kefir, cottage cheese and tofu.

Anti-Aging Foods




Grains and legumes: Old fashioned oatmeal, lentils, chickpeas, dried beans, buckwheat and barley.

Anti-Aging Foods



Fruits and Vegetables (The Rainbow Foods)

Anti-Aging Foods



Nuts and Seeds: Almonds, walnuts, hazelnuts, pecans, macadamia nuts, pumpkin seeds, sunflower seeds, sesame seeds and flaxseeds.

Anti-Aging Foods



Beverages: Green tea, water, Açai, pomegranate juice (unsweetened).

Anti-Aging Foods



Condiments: Extra-virgin olive oil (look for Italian or Spanish high quality), cayenne pepper, salsa.

Anti-Aging Foods



Herbs and spices: Cinnamon sticks, dill, marjoram, parsley, turmeric, ginger root, basil, oregano, thyme, lemon balm, mint, sage and rosemary.

But what about the "other" food groups?

The "Other" Food Groups

Coffee Chocolate Alcohol

The finest stimulants that nature has to offer!!

The "Other" Food Groups

"Please don't take away my morning caffeine!!!!"

The "Other" Food Groups: Coffee

- ☹ Coffee is a stimulant that will temporarily boost your energy levels, while giving your system a real shock.
- ☹ Plus, think about all the sugar we all add to our coffee!

- ☹ It has been shown that drinking just two cups of coffee can increase levels of cortisol and insulin- hormones that accelerate aging and store body fat.

The "Other" Food Groups: Coffee

- ☹ The organic acids in both DECAF and REGULAR coffee raise cortisol levels in the body, which will help you store your food as fat around your mid-section!
- ☹ Coffee drinkers who switch over to green tea lose an average of 10 pounds over a 6-week period!
- ☹ Green tea contains catechin polyphenols, antioxidants that boost metabolism and slow aging.

The "Other" Food Groups: Green Tea


W Can green tea make you a fat burning machine???

The "Other" Food Groups: Green Tea

- ☉ Green tea can block the absorption of bad fats by 30 percent!
- ☉ Green tea promotes a sense of calm and improves one's mood.
- ☉ Green tea still contains caffeine, should you need an energy lift.
- ☉ Enjoy it iced during the summer and hot during the winter.


The "Other" Food Groups: Chocolate

- Chocolate is good for you!!
- Dark chocolate has antioxidant properties, which can actually help to protect the body from damaging oxidative stress. It also is far better than milk chocolate, as adding milk cancels out the chocolate's antioxidant effects.
- The best chocolate has a 70% or higher cocoa content and is naturally lower in sugar and higher in antioxidants than other chocolates.



The "Other" Food Groups: Alcohol

- ✿ Red wine is the best alcohol for you. It provides antioxidants called polyphenols that help protect the body.
- ✿ Drink red wine with your meal to avoid a rapid rise in blood sugar and the inflammation that can follow.
- ✿ Grape seeds contain a class of extremely potent antioxidants. Many experts believe that these are responsible for the French paradox: a low rate of heart disease in a country with a high-fat diet!




And now, a word about the OTHER Food Pyramid...

- Americans have long considered the Food Guide Pyramid the gold standard for nutritious eating. Yet if that's the case, why is obesity reaching epidemic proportions in North America?
- If I were to redo the pyramid, I'd put vegetables and fruits at the base, protein and legumes as the second tier, unprocessed grains as the third tier, healthy fats as the fourth tier, and processed carbs and sugars in the little triangle at the top.

Gorgeous Additions to Your Diet

- ✿ Despite bad press, coconuts are truly healthy!
- ✿ Coconuts appear to promote weight loss by increasing metabolism
- ✿ The medium-chain triglycerides present in coconut oil are not readily converted into stored fats
- ✿ Coconuts also have antiviral and antifungal properties and are remarkably stable in high heat cooking and baking



Gorgeous Additions to Your Diet

- ✿ Cinnamon has beneficial effects on blood sugar control
- ✿ Flavon-3-ol antioxidants, found in cinnamon, enhance the stabilizing effect of insulin on blood sugar and decrease insulin resistance
- ✿ Flavon-3-ol antioxidants stimulates insulin receptor sites and lessens the harmful effects of high-glycemic carbohydrates
- ✿ Research has shown that even if you don't eat it every day, cinnamon works its metabolic magic long-term
- ✿ Enjoy ¼ - ½ tsp in your oatmeal, salad, meats, curries, soups, and stews; the active compounds are not destroyed by heat

Gorgeous Additions to Your Diet


- ◆ **SESAME SEEDS** promote healthy weight loss
- ◆ They increase the oxidation of fatty acids in the liver; this will encourage the loss of body fat
- ◆ Sesame seeds work synergistically with fish oils and CLA (conjugated linoleic acid) in promoting optimal fat burning and healthy weight

Gorgeous Additions to Your Diet

- ▣ **FLAXSEEDS** promote weight loss by optimizing fiber intake and stabilizing blood sugar balance
- ▣ They also contain alpha linolenic acid, about 10-15% of which can be converted to omega-3 fats
- ▣ Enjoy a wide variety of nuts and seeds, such as almonds, walnuts, hazelnuts, sunflower seeds, and pumpkin seeds to optimize your intake of trace minerals and decrease your risk of cancer and heart disease

Gorgeous Additions to Your Diet

BEANS AND LENTILS (LEGUME FAMILY) FOR STABILIZING BLOOD SUGAR



Kidney, pinto, navy, red, and black beans, lentils, chickpeas, mung beans

Gorgeous Additions to Your Diet


- Ⓢ Beans owe their weight-control clout to 4 factors:
- Ⓢ 1. **FIBER:** Improves satiety and stabilizes blood sugar
- Ⓢ 2. **RESISTANT STARCH:** Increase the rate at which body fat is burned and makes you burn more body fat. Talk about our unsung heroes!
- Ⓢ One study showed that when participants enjoyed a meal containing RS, their rate of fat oxidation increased by more than 20 percent for an amazing 24 hours!

Gorgeous Additions to Your Diet

- Ⓢ 3. **PHYTONUTRIENT PIGMENTS:** The pigments that color beans (and also berries) help control blood sugar modestly and moderate the inflammatory impact of dietary sugars and standard starches
- Ⓢ 4. **STARCH BLOCKERS (AMYLASE INHIBITORS):** Beans block the action of the amylase enzyme that is needed to digest starches. This helps prevent the digestion of some of the starch in beans and other foods eaten with beans.

Gorgeous Additions to Your Diet

OLD-FASHIONED WHOLE GRAINS



Buckwheat, oats, and barley

Gorgeous Additions to Your Diet

- **BUCKWHEAT:** Substantially reduces blood sugar with the presence of rare carbohydrate compounds (fagopyritols)
- Much of the starch in buckwheat is resistant starch
- Buckwheat is high in protein and gluten-free

Gorgeous Additions to Your Diet

- ◆ **OATS:** Offer considerable health in achieving weight control and satiety
- ◆ The beta-glucan fiber in oats (and barley) have anti-glycemic effects
- ◆ Diabetics given oatmeal registered far lower and slower rises in blood sugar vs. white rice or bread
- ◆ Whole groats, steel-cut oats, or old-fashioned oatmeal are best

Gorgeous Additions to Your Diet

- ◆ **BARLEY:** Hulled is best, since it retains high-fiber bran
- ◆ It contains soluble fibers to digest fat and stabilize blood sugar levels
- ◆ Barley also contains insoluble fiber to promote healthy digestion and prevent colon cancer

Gorgeous Additions to Your Diet

VIBRANT VEGETABLES



Garlic, spinach, kale, broccoli sprouts, cruciferous vegetables, parsley, mint, rosemary, thyme, basil, oregano

Gorgeous Additions to Your Diet

GARLIC: Has numerous health benefits, including:

- lowers cholesterol, raises HDL
- reduces toxins, has antibacterial & antifungal benefits
- reduces stomach-related cancers
- reduces blood clots & atherosclerosis risk
- lowers blood pressure
- has anti-inflammatory activity -> always beneficial for weight loss

Gorgeous Additions to Your Diet

SPINACH AND KALE:

- Contain powerful carotenoids related to astaxanthin
- Rich in lutein to prevent cataracts and macular degeneration and heart-disease
- Contains sulforaphane and indoles that may help prevent cancer

BROCCOLI SPROUTS:

- Reduce the risk of breast and colon cancer
- Act as an antibacterial agent against H. Pylori
- Reduce the risk of stroke, high blood pressure, and heart disease

★	Gorgeous Additions to Your Diet
	<p>CRUCIFEROUS VEGETABLES: Extremely powerful antioxidant and anti-inflammatory protection</p> <ul style="list-style-type: none"> • Broccoli, cauliflower, cabbage, Brussels sprouts, bok choy, and kale • Contain many compounds linked to lower cancer risk • Sulforaphane, a phytonutrient in this group, has been found to block the growth of breast cells that were already cancerous • Isothiocyanate, another phytonutrient, stimulates our bodies to break potential carcinogens down and prevent normal cells from becoming cancerous cells.

★	SUPERFLY FOODS
	<p>Ginger: The Original Spice Girl</p> <ul style="list-style-type: none"> • When it comes to health, nothing beats ginger for soothing coughs and congestion. • Ginger Tea: Peel and slice up an entire fresh ginger root (about 1-2 ounces) and drop into a 2-quart saucepan filled with water. Boil for 10 ten minutes, pour into your favorite mug, and drink it throughout the day for blessed relief.

★	SUPERFLY FOODS
	<p>TURMERIC: Yellow Gold</p> <ul style="list-style-type: none"> • Multiple studies have shows turmeric's benefits in acting as a natural anti-inflammatory and antioxidant, preserving our precious brain cells and warding off Alzheimer's Disease, fighting prostate cancer, heart disease, rheumatoid arthritis, inflammatory bowel disease, and colon cancer.

★	SUPERFLY FOODS
	<ul style="list-style-type: none"> • In numerous studies, the pharmacological benefits of curcumin have been shown to be comparable to steroids (like cortisone) and NSAIDS (like Motrin), but without the toxic side effects (ulcers, intestinal bleeding, decreased white blood cell count).

★	SUPERFLY FOODS
	<ul style="list-style-type: none"> • GOJI BERRIES • Goji berries are mostly found in their dried form and look similar to red raisins. In traditional Chinese medicine, they are used to enhance immune- system function, improve eyesight, protect the liver, boost sperm production, and improve circulation, and promote longevity. • Goji berries are a rich source of zeaxanthin, a carotenoid beneficial for retinal health, and vitamin C.

★	SUPERFLY FOODS
	<ul style="list-style-type: none"> • CAULIFLOWER POWER • Cauliflower and other cruciferous veggies are dazzlingly high in glucosinolates— cancer-fighting chemicals that get broken down in the digestive tract to isothiocyanates and indole-3-carbinol. These all help regulate the body's detoxification enzymes and ultimately eliminate cancer-causing substances. • Cauliflower is also is a rich source of selenium- —an almighty trace mineral that strengthens the immune system and wards off cancer.

SUPERFLY FOODS

- **Broccoli: The Cellular Makeover**
- Broccoli contains high levels of glucoraphanin, which stimulates enzymes that cleanse our cells, detoxify carcinogens and suppress the growth of cancerous tumors.

From Superfly to Spanish Fly...

Jiffy Lubing: Do You Need an Oil Change?

- Eating healthful fats is essential for a great sex life. If you have a lifetime of eating poor-quality fats and you suddenly clean out the riffraff, give your body *at least one year* to displace all the unhealthy fats with the healthy ones at the cellular level.
- Fat cells release toxins very slowly, so just give your body time to change at the cellular level. Even small changes in your diet will yield big results.

Need an oil change?

- Take at least 1 - 2 tablespoons of flaxseed oil every day.
- You can also alternate flaxseed oil with cod- liver oil to boost your immune system. L
- ook for lemon-flavored oil, which doesn't have a hint of fishiness once it's refrigerated.

Need an oil change?

- For symptomatic relief, insert a wheat-germ-oil gelcap into the vagina; this remedy is safe and gentle enough to use even if you're prone to yeast infections.
- Wheat-germ oil is rich in vitamin E and will help re-create natural lubrication. You can insert it up to one hour before intercourse.
- You can take wheat-germ oil orally for results as well.

The Pill Can Be a Real Pill

- Research has shown that regular usage of the pill can deplete the body's stores of vitamin B6, which is critical for healthy nerve function, water balance, and the production of serotonin and dopamine.
- Serotonin and dopamine are powerful neurotransmitters that help keep us happy and calm and offset depression and sugar cravings.
- If you are on the pill, supplement with at least 50 mg of B6 per day.

The Pill Can Be a Real Pill

- The pill can also exacerbate systemic yeast overgrowth.
- Supplement with probiotics, which promotes healthy gut function and fights yeast overgrowth by sustaining the good bacteria in your system.
- Everyone who is on the pill needs to take probiotics every day; powder or pills are fine, just aim for a count of eight billion per day.

★	Herpes
	<ul style="list-style-type: none"> • Boosting the immune system with nutrients that have antiviral properties can help your body fight the good fight. • Olive leaf extract, vitamin C, St. John's wort, and echinacea have a powerful effect on the body that will help keep herpes symptoms at bay. L-lysine has also shown to be effective against herpes by improving the balance of nutrients necessary to reduce viral growth of the <u>herpes virus</u>.

★	Herpes
	<ul style="list-style-type: none"> • Herpes Symptom Soothers • Olive Leaf Extract: 500 mg; take 4 capsules every 3 three hours, up to 16 a day. • L-lysine: 500 mg; take 6 capsules twice per day. • Vitamin C: 1,000 mg three times per day. • St. John's wort: take 1 teaspoon diluted in a shot of water or juice. • Echinacea (from <i>Echinacea purpurea</i> root 1:2 extract): 1 teaspoon diluted in a shot of water or juice. • Calcium lactate: 250 mg twice per day

★	Herpes
	<ul style="list-style-type: none"> • Avoid soy, nuts and seeds, sugar, and alcohol during active herpes outbreaks. • Sugar and alcohol will wear down your immune system, and soy, nuts, and seeds are very high in arginine, an amino acid that can counteract the effects of lysine. • Lysine is an amino acid that suppresses the signs and symptoms of herpes.

★	Cervical Dysplasia and Genital Warts
	<ul style="list-style-type: none"> • For dysplasia and genital warts, use the protocol below from your first diagnosis until your next Pap smear, which should be done six months later. The protocol listed below should help normalize your cervical cells.

★	Cervical Dysplasia and Genital Warts
	<ul style="list-style-type: none"> • Beta Carotene: 50,000 IU per day for six months—make sure it's from a food-based formula • Folic Acid: 20 mg per day for six months. • Echinacea: 1 teaspoon of liquid extract (from <i>Echinacea purpurea</i> root 1:2 extract) diluted in a shot of water or juice; take once a day for six months.

★	Piss-Poor: Treatment for UTIs and Cystitis
	<ul style="list-style-type: none"> • D-Mannose Powder: Take 1 teaspoon in water every 3 hours for the first two days. On day three, take 1 teaspoon 3 times per day. On day four, take just 1 teaspoon. The maintenance dose is 1 teaspoon per day. Drink a <i>lot</i> of water. D-mannose prevents <i>E. coli</i> bacteria from sticking to the bladder walls. • Cranberry Concentrate: Take 2 tablets three or 4 four times per day for acute infections and 1 tablet three or four times per day for chronic infections. Take 1 tablet three times per day as a maintenance dose. • Uva-ursi Leaf: Take 2 tablets three or four times per day for acute infections and 1 tablet three or four times per day for chronic infections. Take 1 tablet three times per day as a maintenance dose.

Fall in Love ...With Vitamin D

- To help you skip through the fall without any depression or Seasonal Affective Disorder, get your blood tested for vitamin D levels.
- The new requirements state that optimal levels for vitamin D should be 60ng/dL.
- Take at least 2,000 IU per day of vitamin D to keep your levels up throughout the winter. Also, make sure you take omega-3 fatty acids to boost your serotonin levels; 2,000—4,000 mg per day should do the trick.

Winter colds: an ounce of prevention...

- To keep yourself cruising through the winter both cold-free and carefree, keeping up with a healthy daily diet and supplement regime is essential.
- Be judicious about the sugar you consume, lest you wipe out your immune system completely. Instead, make sure you get plenty of vitamin A—rich foods, which to support lung health, like: sweet potatoes, winter squash, and carrots, as well as the dark green leafy vegetables.
- Also, try doing a daily shot of wheatgrass or a powdered green- vegetable drink mixed with water. You may cringe at the thought at first, but after a month or so you'll feel so fabulous you'll wonder how you ever lived without it!

Winter colds: an ounce of prevention...

- Also keep some other heavenly immunization tools in for your arsenal:
- **Maitake-D:** Two capsules twice per day (two each capsules should contain 300 mg maitake mushroom powder)
- **Echinacea:** 1 teaspoon per day
- **Calcium Lactate** 250 mg twice per day
- For chronic lung conditions and respiratory problems, take a dropperful of micellized vitamin A once per week. Mix it with a shot of pomegranate or grape juice, as it tastes pretty bitter!

Fibrocystic Breasts

- **DIM** 200 mg per day
- **Chaste Tree*** 4 tablets per day (from *Vitex agnus-castus* fruit; 500 mg).
- **Evening primrose oil** 2,000 mg per day
- **Milk thistle** 150 mg twice per day
- **Spanish black radish** 1 tablet with meals


***Gorgeous Girl Beware! DO NOT take chaste tree if you are on the pill.**

Fibrocystic Breasts

- The best thing you can do for painful breasts is to clear caffeine from your diet. Caffeine can greatly influence premenstrual breast tenderness.
- Add two to three tablespoons of ground flaxseeds to your daily diet by tossing them into your oatmeal, yogurt, cottage cheese, salads, or a protein smoothie.

Low Energy

- **Licorice root:** First thing in the morning, take 1 teaspoonful of liquid tincture diluted in an ounce of water
- **L-carnitine:** 1,000 mg three times per day
- **Magnesium** 400 mg twice per day
- **Lipoic acid** 300 mg per day
- **CoQ10** 100 mg twice per day



LAST BUT NOT LEAST:

Have FUN when you eat-- after all,
pleasure is a nutrient!

Your body may be a temple, but who says
it can't be a nightclub?



Stay tuned for
Secrets
of
Gorgeous
coming out Fall 2008!