

Phytonutrients Zyflamend —contains to a great degree phytonutrients from Chinese Goldtread and Barberry, Baikal Skullcap and Oregano which contribute as antioxidants and the antiinflammatory response as well as strengthening the immune system. Ginger and Green Tea are associated with eicosanoid balance. Holy Basil contains ursolic acid and has detoxifying functions while HuZhang is the richest resveratrol source that promotes cardiovascular health. Tumeric is currently being investigated for possible benefits in Alzheimer's disease, cancer, arthritis, and other biological disorders.

Medicinal uses

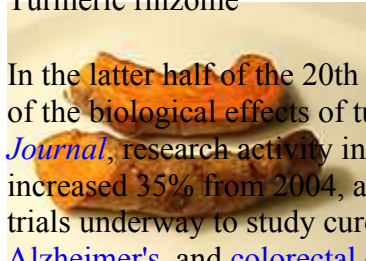


Turmeric plant Main
article: [Curcumin](#)

[4]In [Ayurvedic](#) practices, turmeric has many [medicinal properties](#) and many in South Asia use it as a readily available [antiseptic](#) [for cuts, burns and bruises](#). It is also used as an [antibacterial](#) agent.

[5]It is taken in some [Asian](#) countries as a dietary supplement, which allegedly helps with stomach problems and other ailments. It is popular as a tea in [Okinawa](#) , [Japan](#) . Pakistanis also use [it as an anti-inflammatory agent](#), and remedy for gastrointestinal discomfort associated with irritable bowel syndrome, and other [digestive disorders](#). [In Afghanistan](#) and northwest Pakistan, turmeric is applied to a piece of burnt cloth, and placed over a wound to cleanse and stimulate recovery. Indians, in addition to its Ayurvedic properties, use turmeric in a wide variety of skin creams that are also exported to neighboring countries. It is currently being investigated for possible benefits in [Alzheimer's disease](#) ,[6][cancer](#), arthritis, and other biological disorders .

Turmeric rhizome



In the latter half of the 20th century, curcumin was identified as responsible for most of the biological effects of turmeric. According to a 2005 article in the *Wall Street Journal*, research activity into curcumin is exploding. In that year supplement sales increased 35% from 2004, and the U.S. [National Institutes of Health](#) had four clinical trials underway to study curcumin treatment for [pancreatic cancer](#), [multiple myeloma](#), [Alzheimer's](#), and [colorectal cancer](#).^[citation needed]^[7] The British Journal of Cancer reported a study that showed that curcumin can kill esophageal cancer cells *in vitro*.^[citation needed] Curcumin also enhances the production of [brain-derived neurotrophic factor](#), or BDNF, which supports nerve growth.

^[8] Turmeric has been identified as acting as an [antivenin](#) for King Cobra snake bites by Dr Eric Lattman of Aston University.

OTHER HEALTH RELATED HERBS:

New research suggests that certain herbs and spices can help lower blood pressure, ease arthritis and slow the growth of some cancer cells.

- *Parsley*: Parsley is a good source of vitamin C, iron, and flavonoids, which the *American Institute for Cancer Research* says may help protect cells from cancer.
- *Tumeric*: The *University of Arizona College of Medicine* say curcumin, the active ingredient in this Indian spice, helps prevent joint inflammation associated with rheumatoid arthritis while Rutgers University researcher say tumeric may also slow the spread of prostate cancer.
- *Sage*: A *University of Georgia* study suggests that sage can prevent tissue damage caused by high blood sugar and may even offer protection against cardiovascular disease.
- *Rosemary*: Scientists from the *Burnham Institute for Medical Research* found that rosemary can help protect brain cells from the ageing process and from damage caused by the free radicals that lead to Alzheimer's.
- *Cinnamon*: The *U.S. Department of Agriculture* says cinnamon may lower cholesterol, reduce blood sugar, and slow the proliferation of cancerous cells in people with leukemia.

The Gluten Doctors

**Leaders in the diagnosis and treatment of
gluten sensitivity and related health
conditions.**

Wednesday, August 26, 2009
Gluten Dangers: The Truth Is Here To Stay

If you're gluten sensitive or have celiac disease you may have heard the comment that gluten is a "fad" from a curious friend or family member. Granted one would have to be quite "out of the loop" these days to not have heard of gluten, but more and more those who haven't been diagnosed are asking: Why now? Why is it suddenly so large a problem?

These are good questions and I'd like to provide some possible answers.

Recently I had the good fortune to listen to Dr Harris, a celiac and gluten researcher out of the University of Maryland who works with Dr Fassano, a long time researcher in the field. Dr Harris felt that increased awareness and better detection of celiac disease has definitely gone a long way towards diagnosing more of those afflicted. (Considering there are over 90% of celiacs who remain undiagnosed, we obviously still have a long way to go but any improvement is appreciated.)

Dr Harris additionally noted that viruses and vaccines can perhaps cause an increased reaction to gluten in susceptible individuals. Viruses have been identified that trigger an immune response that cross reacts with gluten through molecular mimicry. Rotavirus is such an example. Rotavirus typically strikes children causing them to suffer with diarrhea for several days and is the most common cause of childhood diarrhea. The virus works by attacking the lining of the small intestine, causing often copious loss of fluids and electrolytes. Antibodies in celiac patients are known to cross react with rotavirus.

What does this all mean? We review this mechanism in our book *The Gluten Effect*. Remember that gluten is a protein (actually an array of proteins but we'll discuss that later). It is known that certain fragments of the gluten proteins are quite similar to structures within our body as well as that of viruses. The rotavirus has such a structure. When the body has been

exposed to rotavirus the immune system remembers it. Due to gluten's similar structure, gluten ingestion occurring after the viral infection causes the body's immune system to attack the gluten molecule "thinking" it's the rotavirus again. In sum, this infection causes the immune system in the gluten susceptible individual to be primed to react.

My research revealed that rotavirus affects 3 million people in the US each year, 5 every minute.

What about the vaccine comment? The number of vaccines that our children are exposed to has increased dramatically over the past several decades. Based on the above mechanism of molecular mimicry a susceptible GI tract can begin reacting to gluten after receiving a vaccine.

How does one explain the genetically susceptible individual who seems to eat gluten with impunity? Dr Harris' research is looking at a co-variable concept that I believe, based on my clinical experience, makes a lot of sense. It is thought that while an individual can possess the genes that make him or her susceptible to reacting to gluten, the reason not everyone does and the age of onset is so variable is dependent upon the presence of other factors. Dr Harris thinks that without some underlying inflammation already present in the gut, a healthy individual might go on consuming gluten with no negative effects.

It is an interesting theory. What we see here in the clinic is a varying time of onset of symptoms. While someone has been consuming gluten their whole life, they may have been "fine" until their 30s, 40s or 50s. And then there are the infants whose first exposure causes dramatic results. The time of expression may very well be dependent upon the underlying health and stability of the immune system. A stable, healthy, uncompromised immune system and small intestine could well sustain a gluten-containing diet with no apparent negative results. It's not unusual for a patient to have suffered a severe infection of some sort or a stressful life period, after which they began to react to gluten.

And finally the structure of our grains was discussed as it relates to different cultivars containing different protein fragments. Some fragments of proteins are inflammatory and some are not. Witness the Americans who travel to Italy and eat older cultivars of wheat with seeming impunity. Don't book a flight just yet...

There is a lot more to learn and that's a tremendous understatement. But as a clinician I do find that the health of the small intestine and immune system plays a large role in how quickly a patient will see a resolution of their symptoms. And it also give credence to the protocol we follow that goes beyond simply removing gluten from the diet. Concurrent with a gluten-free diet one must heal the gut, remove pathogens, recolonize with healthy probiotic bacteria and follow a healthy diet – otherwise the result will be unsatisfactory.

There is much more to come on this topic and to answer the question: No, gluten sensitivity is not a fad!

Until next time,
I wish you good health,

Dr Vikki Petersen
Founder of [HealthNOW Medical Center](#)
Co-author of [The Gluten Effect](#)

Posted by The HealthNOW Doctors at 5:44 PM 

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What does a treatment program entail?

It is estimated that up to 40% of our population is gluten sensitive and celiac disease afflicts about 1% of our population.

Many thousands of Americans are suffering from digestive problems, obesity, fatigue, depression, arthritis, migraines and more. The approach to dealing with these conditions varies but the common thread is that patients are given some palliative, though temporary, medication usually.

We have discovered that undiagnosed celiac disease and gluten sensitivity creates symptoms well beyond digestive problems. Why? Because gluten is a toxin to many of us. And as a toxin it slowly erodes and destroys our small intestine. As the small intestine is responsible for turning our food into fuel which in turn feeds all our cells (we have trillions of cells, by the way), you can imagine what problems might be created when we are unable to adequately and efficiently turn food into fuel. A damaged small intestine is unable to perform that job adequately, our cells don't get fed well and thereby are unable to do their job. Different bodies have different reactions to this. One person may have irritable bowel syndrome, another may feel exhausted or stressed, and another may develop thyroid problems or an autoimmune disease like arthritis or lupus. Symptoms truly are all over the map. And therein lies the problem. We live in a medical community which likes to take individual symptoms and give them drugs to mask them. That not only does nothing to address the root cause but it negates the whole concept that there IS a root cause.

We specialize in getting to the root cause of health problems. And while we're not saying that all health problems are a result of gluten sensitivity, so many are and it is missed 99% of the time. This is why we specialize in the area of gluten sensitivity.

Now add to the lack of awareness of gluten being the problem the fact that once patients are diagnosed they aren't very happy about the change they need to make in their diet.



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The Gluten Effect

- "The Gluten Effect" [buy your copy here](#)



The Gluten Doctors - Who are we?

The Gluten Doctors are a group of several doctors, consisting of M.D.s and Certified Clinical Nutritionists. The doctors have been in practice for over 20 years and specialize in the area of digestive problems, especially gluten sensitivity and celiac disease. The clinic, HealthNOW Medical Center, is a unique medical clinic that combines the best of internal medicine, clinical nutrition, physical therapy and chiropractic. At your side is a team of doctors who proactively work together to resolve your unique health problems and conditions.

Gluten-Free Grains and Flours

| | |
|-------------------------|---|
| Acorn | does not bind well. Is excellent in chocolate and spice products. |
| Almond | works well in breads, pastries and cakes. Can use as coarse bits or flour. |
| Amaranth | whole grain can be cooked as a cereal, popped like popcorn, sprouted, toasted or ground into flour. It is best mixed with other flours for baking yeast breads. |
| Arrowroot | made from root of a tropical American plant. Typically used as thickening agent and blends well with other gluten-free flours. |
| Artichoke | excellent addition to rice-potato-tapioca flour combinations for bread |
| Buckwheat/Kasha | used whole, cracked, or ground into flour. Can be used as a pilaf or enjoyed as a hot cereal. |
| Carrageen(an) | obtained from seaweed and often used as thickening agent for ice cream etc. |
| Chestnut | usually roasted, then used whole or ground into flour (does not bind well). |
| Corn (maize) | yellow, blue, sweet, and popping corn are all gluten-free (GF). Good basic grain that can be used as flour or cornmeal for baking, breading, cereal, etc. |
| Flax | usually listed as flax seed or flax seed meal. Used as a fiber in bulking agents and high fiber foods |
| Manioc | starch extract ground into a flour from cassava, tapioca, or yucca; is used as a thickener for soups, fruit fillings and glazes, much like cornstarch. |
| Millet | small grass seeds which can be substituted for sorghum and used in soups or casseroles. The flour is similar to brown rice flour. |
| Montina | is Indian rice grass used for an all purpose flour. It is high in protein, high in fiber and gluten-free. |
| Pea, beans, lentil | (mung bean, garbanzo bean, soya etc.) are basic protein flours. They are excellent additions to bread and baking products although you may need to add a softener in the dough such as egg whites or cottage cheese to counteract firmness. Soy is very high in nutrients and has a distinct flavor and high fat content. It is best used in combination with other flours. |
| Potato and potato flour | good additions to a GF flour mix. They add moisture and cohesiveness to batter and dough and have a good flavor. |
| Quinoa | mild nutty flavor, versatile; can be substituted for any grain. Used whole, as a hot cereal or ground into flour for baking. Adds moisture to baked goods. |
| Rice | flours are staples for GF baking both brown and white varieties. Rice has a bland flavor and performs best when combined with other flours that add moisture and cohesiveness such as potato and soy. Sweet rice flour is stickier and has more starch than other rice flours. Rice bran and rice polish add nutrients and flavor. |
| Sago | is a slightly gray starch prepared from the trunk or stems of palm trees and other plants. It has a mild flavor and can be used in baking on its own or in combination. It binds slightly but is not easy to work with. |

| | |
|----------------|---|
| Sesame | whole, coarsely ground, or flour, it makes an excellent addition to breads and cookies. |
| Sorghum (milo) | any number of related cereal grasses with sweet, juicy stalks. Both the grains and the syrups are GF. |
| Sunflower | whole or finely ground, a nutritious and flavorful addition to breads, cookies, etc. |
| Tapioca | (cassava, manioc) excellent thickener for soups and gravies and adds a lightness in texture to other combinations for GF baked products. Keeps well in freezer. |
| Taro | is a starchy tropical root used as a thickener, similar to tapioca. |
| Teff | is a very small black grain of the millet family, used as hot porridge or in flat bread. |
| Wild rice | a tall, annual, aquatic grass that produces a flavorful GF flour. |
| Water chestnut | when it is dried, it may be ground into a flour or powder and used as a thickener, or for coating foods prior to frying. |

Flours and Grains that are Not Safe for a Gluten-Free Diet

| | |
|-----------|---|
| Barley | a documented gluten-containing grain. It is often used in malt, HPP, HVP, colorings and flavorings. |
| Bulgur | wheat that has been cooked, dried, and coarsely ground. |
| Durum | a hard wheat that yields flour and semolina used in macaroni products. |
| Kamut | (a variety of wheat) a large kernelled grain. |
| Oats | there are many varieties and many opinions it is not recommended due to cross contamination. |
| Rye | a high reactor for CS and DH patients. |
| Semolina | the larger kernels of wheat sifted out in flour milling process and used for pasta. |
| Spelt | a primitive species of wheat native to southern Europe and western Asia. |
| Triticale | a hybrid of rye and wheat. It is not gluten-free. |
| Wheat | all varieties of wheat and wheat products should be avoided. |

Other Items/Additives Recommended to Avoid

| |
|---|
| Vinegars from grains (apple cider, wine, balsamic, rice wine are ok) |
| MSG and HVP (hydrolyzed vegetable protein) may be made from gluten containing grains. |
| Natural Flavors (find out if product contains MSG or HVP) |
| Caramel color |
| Tamari or soy sauce made from wheat. |
| Miso powder made from barley or buckwheat or that includes soy sauce. |
| Yeast of any kind except baking yeast. |
| Rice syrup made with enzymes grown on barley malt. |
| Candies, flours or starch used on conveyor belts. |

NOTE: This list is for people with Celiac Disease/Non-tropical Sprue (CS) or Dermatitis Herpetiformis (DH) to assist them in avoiding all forms for the gliadin fraction of gluten in their diet.

Information provided from reference: www.csaceliacs.org National Celiac Sprue Association/USA.

Saturated Fat and Cholesterol in Common Animal Products

**Saturated fat calories as a percent of total sample calories;
cholesterol in milligrams per gram of sample**

| Animal Product | Cholesterol | Fat | Suggestions for Minimizing Saturated Fat and Cholesterol Buildup |
|-----------------------|--------------------|------------|--|
| Egg yolk | 6.0 | 24% | Avoid or greatly limit foods highest in saturated fat and cholesterol—eggs and butter. Note that saturated fat in organ meats is relatively low. The extreme fat and cholesterol in eggs is offset somewhat by the lecithin they contain, although it is still thought that eggs can add significantly to arterial plaque. |
| Whole egg | 5.5 | 19% | |
| Chicken liver | 4.4 | 9% | |
| Beef liver | 3.0 | 9% | |
| Butter | 2.2 | 63% | |
| Lobster | 2.0 | 9% | |
| Shrimp | 1.5 | 4% | |
| Chicken heart | 1.3 | 16% | |
| Clam | 1.2 | 10% | Avoid cheese or use it sparingly; even though it is not a commonly known fact, cheese is high in cholesterol and is one of the richest foods in saturated fat (saturated fat causes blood cholesterol to rise). |
| Crab | 1.0 | 9% | |
| Colby cheese | .96 | 46% | |
| Milk, dry | .96 | 30% | |
| Mackerel | .95 | 11% | |
| Swiss cheese | .93 | 42% | |
| Feta cheese | .89 | 50% | |
| Herring | .85 | 9% | |
| Chicken (dark meat) | .81 | 19% | Most red meats, including those listed here, contain moderate cholesterol but large amounts of saturated fat—avoid or use them sparingly. The fish and light-meat chicken in this group are relatively low in saturated fat; the fish contain omega-3 oils and are therefore one of the safest animal products. Fat levels are reduced by trimming the separable fat in meat such as roasts and steaks, by removing the skin of fowl, and by cooking methods such as broiling. “Select” grade of red meat contains less fat than the “prime” or “choice” cuts. |
| Sardine | .71 | 23% | |
| Ground beef | .67 | 35% | |
| Pork bacon | .67 | 34% | |
| Tuna | .65 | 13% | |
| Salmon | .60 | 20% | |
| Haddock | .60 | 1% | |
| Lamb chops | .59 | 42% | |
| Chicken | .58 | 15% | |
| Ham | .57 | 16% | |
| Porterhouse steak | .57 | 39% | Several fish—haddock, halibut, cod, and scallops—are among the animal products with the least saturated fat and cholesterol. The percentage by caloric value of saturated fat in dairy indicates its true contribution to body fat and is especially useful since milk and other dairy products are commonly used in nearly every meal of the modern American diet. |
| Trout | .55 | 11% | |
| Oysters | .50 | 12% | |
| Halibut | .50 | 1% | |
| Cod | .50 | 1% | |
| Scallops | .35 | 1% | |
| Milk, cow | .13 | 30% | |
| Yogurt | .13 | 30% | |
| Milk, goat | .11 | 34% | |

Summary of Fatty-Acid Uses

| Symptom | Fatty-Acid Recommendations |
|--|--|
| General essential fatty-acid deficiency dry, scaly skin dry and falling hair retarded growth infertility gallstones liver problems varicose veins infections irritability “flightiness” and nervousness | Improve quality of all oil sources; switch from refined, rancid, and hydrogenated oils to unprocessed plant sources of essential fatty acids—whole grains (unmilled, freshly milled, or sprouted), legumes and their sprouts, fresh nuts and seeds, dark green vegetables and micro-algae. Use oils rich in both linoleic and alpha-linolenic fatty acids such as flax-seed, pumpkin-seed, and chia-seed oils. Note: Use these oils <i>only</i> if they are recently cold-pressed and unrefined. |
| Vascular system problems strokes heart attacks arterial hardening and deterioration high blood pressure high blood cholesterol stress migraine | The following fatty acids are beneficial: 1. Alpha-linolenic acid (an omega-3): Use seeds or fresh seed oils of flax, chia, and/or pumpkin; soy foods, dark-green plants, cold-climate crops. 2. Gamma-linolenic acid. Produced in the healthy body from linoleic acid, which is found in the essential fatty-acid sources listed above; available directly from spirulina, and oils of borage seed, black currant seed, and evening primrose seed. 3. EPA and DHA in fish, especially tuna, sardine, salmon, anchovy, or fish oil. |
| Brain/nerve damage or incomplete development from famine, disease, or lack of DHA during fetal development. | Especially DHA from fish or fish oil; also GLA (and other nutrients) in spirulina; and to some extent, the alpha-linolenic acid sources in (1) above. |
| Diseases of inflammation arthritis (all types) eczema, psoriasis, hives colitis, bronchial asthma | Especially alpha-linolenic acid sources in (1) above; gamma-linolenic acid (GLA) and EPA/DHA sources in (2) and (3) above are also beneficial. |
| Diseases of cell proliferation breast cysts tumors cancers | (same as above) |
| Other conditions poor immunity, AIDS, MS kidney disease, enlarged prostate | (same as above) |

(continued on next page)

alcoholism, addictions
schizophrenia, depression
premenstrual syndrome
obesity

GLA-Blocking Factors: The following factors interfere with the metabolism of GLA and/or its transformation into the prostaglandins, particularly PGE₁:

Trans-fatty acids, the synthetic fats in margarine, shortenings, and refined and highly heated oils (above 320°F)

Alcohol and tobacco

Radiation including low-level radiation such as from appliances, etc.

Aspirin and most other synthetic drugs

Carcinoid processes—cancer and other free-radical activities

Saturated fats and cholesterol in excess

Aging

Excessive arachidonic acid from overconsumption of animal products

Deficiencies of vital nutrients, especially vitamins B₃, B₆, C, and E, zinc and magnesium

These nutrients are all well-supplied in a diet based on unprocessed grains, vegetables, legumes, nuts, seeds, fruits, and seaweeds. In extreme cases, extra care must be taken to obtain adequate vitamin C; excellent food sources are listed in the earlier section “Cleansing the Heart and Arteries.”

Proportions of Fats in Common Cooking Oils

| Oil | Mono-unsaturated | Poly-unsaturated | Saturated |
|--------------------------|------------------|------------------|-----------|
| Olive | 82% | 8% | 10% |
| Oleic* sunflower | 81% | 11% | 8% |
| Oleic* safflower | 75% | 17% | 8% |
| Avocado | 74% | 8% | 18% |
| Almond | 70% | 21% | 9% |
| Apricot kernel | 63% | 31% | 6% |
| Peanut | 60% | 22% | 18% |
| Canola (Oleic* rapeseed) | 60% | 34% | 6% |
| Sesame | 46% | 41% | 13% |
| Corn | 29% | 54% | 17% |
| Soy | 28% | 58% | 14% |
| Sunflower | 26% | 66% | 8% |
| Walnut | 23% | 63% | 14% |
| Cottonseed | 18% | 52% | 30% |
| Palm kernel | 16% | 1% | 83% |
| Safflower | 13% | 79% | 8% |
| Coconut | 6% | 2% | 92% |
| Clarified butter | 5% | 30% | 65% |

*More recently developed oils, as discussed above, that are higher in oleic acid (and therefore more monounsaturated) than the regular varieties of oil.

Eating a wide sampling of foods from the following list strengthens the pancreas, regulates blood sugar, and at the same time improves the fluid metabolism. (The individual properties of many of these foods are given in the recipe section and elsewhere in this book.) Diabetics should choose one or more of these foods daily as part of a primarily vegetarian diet of unrefined grains, vegetables, legumes, fruits

Foods Commonly Used in the Treatment of Diabetes

Grains and Legumes

millet
rice
sweet rice
oats
fresh corn
whole wheat and its bran
tofu and soy products
mung bean
garbanzo bean

Chlorophyll Foods

wheat- or barley-grass
spirulina
chlorella
liquid chlorophyll

Vegetables and Fruits

string bean
carrot
radish
Jerusalem artichoke
turnip
asparagus
yam
spinach
avocado
pear
plum
lemon
grapefruit
lime
blueberry
huckleberry

Herbs

dandelion root and leaf
cedar berries
yarrow flowers
blueberry/huckleberry
leaf

Sweeteners

licorice tea or powder
stevia powder or extract

Animal Products

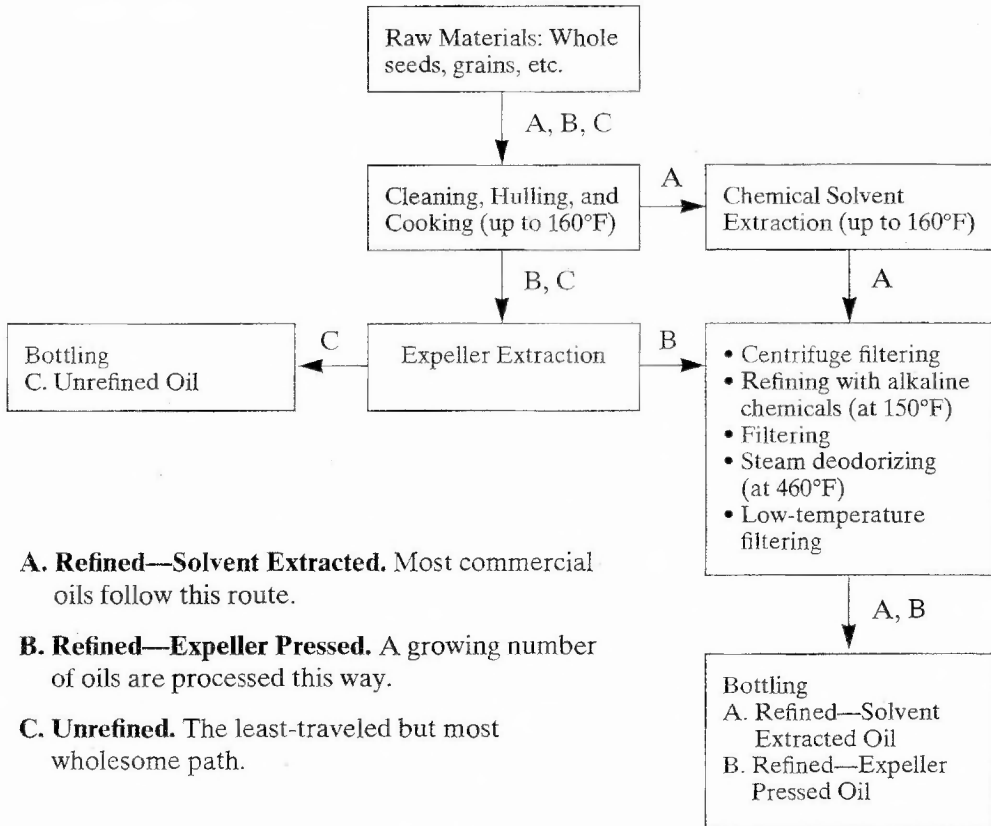
clam, abalone
cow's milk, yogurt
pancreas of lamb, pork
beef, or fowl
lamb kidney
chicken or goose
beef

herbs, and a limited amount of nuts and seeds.

Activity: Of equal importance to diet is vigorous exercise, which lowers blood sugar levels and thereby reduces the need for insulin. Exercise also improves the circulation, which tends to be poor in diabetics.

Vegetable Oil Manufacturing

Refined and Unrefined



GINKGO BILOBA: EFFECTIVE JAMA STUDY?

In response to the publication of a study, "Ginkgo biloba for Preventing Cognitive Decline in Older Adults," published in the Journal of the American Medical Association, the Council for Responsible Nutrition (CRN), the leading trade association representing the dietary supplement industry, issued the following statement:

Statement by Douglas MacKay, N.D., vice president, scientific and regulatory affairs, CRN:

"It is important to put this study into context and to remember that there is a large body of previously published evidence, which suggests that *Ginkgo biloba* may help improve cognitive impairment in older adults. There are also additional ongoing clinical trials, the results of which may address some of the limitations of the current study. The results of this single study add to the overall data on *Ginkgo biloba*, including valuable evidence in support of Ginkgo's safety profile, but should not be viewed as the final word. In addition, several studies have demonstrated that *Ginkgo biloba* can be used to improve blood circulation and reduce oxidative stress, two risk factors associated with the progression of cognitive decline, [dementia](#) and [Alzheimer's disease](#).

We also need to remember that cognitive decline, [dementia](#) and [Alzheimer's disease](#) are multi-factorial chronic conditions and the exact causes and mechanisms are unknown, and most importantly that there is no magic bullet or cure that has yet been found. The solution to these conditions will likely not be a single isolated approach, but rather will be a multi-component, integrative approach to supporting cognitive health, which may include lifestyle habits such as eating a healthy diet and taking dietary supplements such as *Ginkgo biloba*, along with both mental and physical exercise.

As a former practicing licensed naturopathic doctor, I have had the benefit of working with patients and have seen first-hand how *Ginkgo biloba* can be effective in improving cognitive function. In an area where there are few other safe, affordable options, I would hate to see this study send the wrong message to consumers. I would continue to recommend *Ginkgo biloba* to older adults as a safe, effective option for supporting cognitive health and would encourage consumers to talk to their own healthcare professional about what is right for them."

SOURCE Council for Responsible Nutrition

Ginkgo

What other names is Ginkgo known by?

Adiantifolia, Bai Guo Ye, Baiguo, Fossil Tree, Ginkgo biloba, Ginkgo Extract, Ginkgo Folium, Ginkgo Leaf Extract, Ginkgo Seed, Herba Ginkgo Biloba, Japanese Silver Apricot, Kew Tree, Maidenhair Tree, Pei Go Su Ye, Salisburia Adiantifolia, Yen Xing, Yinhsing.

What is Ginkgo?

Ginkgo is an herb. The leaves are generally used to make medicine. However, a few medicines are made from the seed, but these are not well studied.

Is Ginkgo effective?

There is some scientific evidence that ginkgo can slow the loss of memory and social skills in people with Alzheimer's disease. Ginkgo might also help normal memory loss in older people and can possibly sharpen the thinking skills of younger people.

Ginkgo might also help people who experience leg pain when they walk due to poor bloodflow. Ginkgo seems to be able to help people with this condition walk farther before the pain starts. It might also help people with balance problems, ease some of the symptoms of premenstrual syndrome (PMS) (especially breast tenderness), improve distance vision in people with macular degeneration, improve color vision in people with diabetes, and reverse the sexual side effects of certain medications for depression (such as [Prozac](#), [Paxil](#), [Zoloft](#), etc.).

There isn't enough information to know if ginkgo leaf is effective for the other conditions people use it for, including: attention deficit-hyperactivity disorder (ADHD), blood clots, heart disease, high cholesterol, "hardening" of the arteries, depression, mountain sickness, and others.

Possibly Effective for...

- Alzheimer's disease and other forms of dementia.
- Improving thinking problems caused by old age.
- Improving thinking in young people.
- Raynaud's syndrome (a painful response to cold especially in the fingers and toes).
- Leg pain when walking due to poor blood flow (claudication).
- Vertigo and dizziness.
- Premenstrual syndrome (PMS).
- Improving color vision in people with diabetes.
- Treating some kinds of eye diseases (glaucoma and eye damage caused by diabetes).

Possibly Ineffective for...

- Ringing in the ears (tinnitus).
- Winter depression in people with seasonal affective disorder (SAD).
- Sexual problems related to antidepressant medicines.
- Sexual problems in women.

- Preventing symptoms of mountain or altitude sickness in climbers.

Insufficient Evidence to Rate Effectiveness for...

- Age-related macular degeneration (AMD), anxiety, attention deficit-hyperactivity disorder (ADHD), blood clots, heart disease, stroke, high cholesterol, "hardening" of the arteries (atherosclerosis), colorectal cancer, ovarian cancer, hearing loss, schizophrenia, and other conditions when the extract is used.
- Coughs, asthma, bronchitis, urinary problems, cognitive problems related to Lyme disease, digestion disorders, chronic fatigue syndrome (CFS), scabies, and skin sores when the seeds are used.

How does Ginkgo work?

Ginkgo seems to improve blood circulation, which might help the brain, eyes, ears, and legs function better. It may slow down Alzheimer's disease by interfering with the changes in the brain that interfere with thinking.

Ginkgo seeds contain substances that might kill bacteria and fungi which cause infections in the body. The seeds also contain a toxin that can cause side effects like seizure and loss of consciousness.

Are there safety concerns?

Ginkgo is safe for most people when used appropriately. It can cause some minor side effects such as stomach upset, headache, dizziness, constipation, forceful heartbeat, and allergic skin reactions.

There is some concern that ginkgo might increase the risk of bruising and bleeding. Ginkgo thins the blood and decreases its ability to form clots. A few people taking ginkgo have had bleeding into the eye and into the brain, and excessive bleeding following surgery.

Some research suggests that a specific combination of ginkgo leaf extract plus American ginseng might be safe in children when used short-term.

Ginkgo seeds might not be safe. Long-term use or use of medicinal amounts can cause serious side effects including stomachache, nausea, diarrhea, vomiting, restlessness, difficulty breathing, weak pulse, shock, seizures, loss of consciousness, and death.

Do not take ginkgo if:

- You are pregnant or breast-feeding.
- You are scheduled for surgery in the next two weeks. It might increase the risk of bleeding.
- You have a bleeding problem.
- You have seizures, convulsions, or epilepsy.
- You are trying to get pregnant or father a child.

Are there any interactions with medications?

Ibuprofen

Interaction Rating: **Major** Do not take this combination.

Ginkgo can slow blood clotting. Ibuprofen can also slow blood clotting. Taking ginkgo with ibuprofen can slow blood clotting too much and increase the chance of bruising and bleeding.

Medications that slow blood clotting (Anticoagulant / Antiplatelet drugs)

Interaction Rating: **Major** Do not take this combination.

Ginkgo can slow blood clotting. Taking ginkgo along with medications that also slow clotting might increase the chances of bruising and bleeding.

Some medications that slow blood clotting include [aspirin](#), clopidogrel ([Plavix](#)), dalteparin ([Fragmin](#)), enoxaparin ([Lovenox](#)), [heparin](#), indomethacin ([Indocin](#)), ticlopidine ([Ticlid](#)), warfarin ([Coumadin](#)), and others.

Warfarin (Coumadin)

Interaction Rating: **Major** Do not take this combination.

Warfarin (Coumadin) is used to slow blood clotting. Ginkgo might also slow blood clotting. Taking ginkgo along with warfarin (Coumadin) might increase the chances of bruising and bleeding. Be sure to have your blood checked regularly. The dose of your warfarin (Coumadin) might need to be changed.

Alprazolam (Xanax)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Taking ginkgo along with alprazolam might decrease the effects of alprazolam.

Buspirone (BuSpar)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Ginkgo seems to affect the brain. Buspirone (BuSpar) also affects the brain. One person felt hyper and overexcited when taking ginkgo, buspirone (BuSpar), and other medications. It is unclear if this interaction was caused by ginkgo or the other medications.

Efavirenz (Sustiva)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Efavirenz (Sustiva) is used to treat HIV infection. Taking efavirenz (Sustiva) along with ginkgo extract might decrease the effects of efavirenz (Sustiva). Before taking ginkgo, talk to your healthcare provider if you take medications for HIV.

Fluoxetine (Prozac)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Taking ginkgo along with St. John's wort, other herbs, and fluoxetine (Prozac) might cause you to feel irritated, nervous, jittery, and excited. This is called hypomania. It's not known if this is a concern when just ginkgo is taken with fluoxetine (Prozac).

Medications changed by the liver (Cytochrome P450 1A2 (CYP1A2) substrates)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications are changed and broken down by the liver. Ginkgo might decrease how quickly the liver breaks down some medications. Taking ginkgo along with some medications that are changed by the liver might increase the effects and side effects of some medications. Before taking ginkgo, talk to your healthcare provider if you take any medications that are changed by the liver.

Some of these medications that are changed by the liver include clozapine ([Clozaril](#)), cyclobenzaprine ([Flexeril](#)), fluvoxamine ([Luvox](#)), haloperidol ([Haldol](#)), imipramine ([Tofranil](#)), mexiletine ([Mexitil](#)), olanzapine ([Zyprexa](#)), pentazocine (Talwin), propranolol ([Inderal](#)), tacrine ([Cognex](#)), theophylline, zileuton ([Zyflo](#)), zolmitriptan ([Zomig](#)), and others.

Medications changed by the liver (Cytochrome P450 2C19 (CYP2C19) substrates)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications are changed and broken down by the liver. Ginkgo might increase how quickly the liver breaks down some medications. Taking ginkgo with these medications might decrease how well the medication works. Before taking ginkgo, talk to your healthcare provider if you take any medications that are changed by the liver.

Some of these medications that are changed by the liver include amitriptyline ([Elavil](#)), carisoprodol ([Soma](#)), citalopram ([Celexa](#)), diazepam ([Valium](#)), lansoprazole ([Prevacid](#)), omeprazole ([Prilosec](#)), phenytoin ([Dilantin](#)), warfarin (Coumadin), and many others.

Medications changed by the liver (Cytochrome P450 2C9 (CYP2C9) substrates)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications are changed and broken down by the liver. Ginkgo might decrease how quickly the liver breaks down some medications. Taking ginkgo along with these medications that are changed by the liver might increase the effects and side effects of your medication. Before taking ginkgo, talk to your healthcare provider if you take any medications that are changed by the liver.

Some medications that are changed by the liver include amitriptyline (Elavil), diazepam (Valium), zileuton (Zyflo), celecoxib ([Celebrex](#)), diclofenac ([Voltaren](#)), fluvastatin ([Lescol](#)), glipizide ([Glucotrol](#)), ibuprofen (Advil, Motrin), irbesartan ([Avapro](#)), losartan ([Cozaar](#)), phenytoin (Dilantin), piroxicam ([Feldene](#)), tamoxifen ([Nolvadex](#)), tolbutamide ([Tolinase](#)), torsemide ([Demadex](#)), warfarin (Coumadin), and others.

Medications changed by the liver (Cytochrome P450 2D6 (CYP2D6) substrates)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications are changed and broken down by the liver. Ginkgo might decrease how quickly the liver breaks down some medications. Taking ginkgo along with some medications that are changed by the liver can increase the effects and side effects of your medication. Before taking ginkgo, talk to your healthcare provider if you take any medications that are changed by the liver.

Some medications that are changed by the liver include amitriptyline (Elavil), clozapine (Clozaril), codeine, desipramine ([Norpramin](#)), donepezil ([Aricept](#)), fentanyl ([Duragesic](#)), flecainide ([Tambocor](#)), fluoxetine (Prozac), meperidine ([Demerol](#)), methadone ([Dolophine](#)), metoprolol ([Lopressor](#), [Toprol XL](#)), olanzapine (Zyprexa), ondansetron ([Zofran](#)), tramadol ([Ultram](#)), trazodone ([Desyrel](#)), and others.

Medications changed by the liver (Cytochrome P450 3A4 (CYP3A4) substrates)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications are changed and broken down by the liver. Ginkgo might affect how quickly the liver breaks down some medications, and lead to a variety of effects and side effects. Before taking ginkgo, talk to your healthcare provider if you are taking any medications that are changed by the liver.

Some medications changed by the liver include lovastatin ([Mevacor](#)), clarithromycin ([Biaxin](#)), cyclosporine ([Neoral](#), [Sandimmune](#)), diltiazem (Cardizem), estrogens, indinavir ([Crixivan](#)), triazolam ([Halcion](#)), and others.

Medications for diabetes (Antidiabetes drugs)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Diabetes medications are used to lower blood sugar. Ginkgo might increase or decrease insulin and blood sugar in people with type 2 diabetes. Taking ginkgo along with diabetes medications might decrease how well your medication works. Monitor your blood sugar closely. The dose of your diabetes medication might need to be changed.

Some medications used for diabetes include glimepiride ([Amaryl](#)), glyburide ([DiaBeta](#), [Glynase PresTab](#), [Micronase](#)), insulin, pioglitazone ([Actos](#)), rosiglitazone ([Avandia](#)), chlorpropamide ([Diabinese](#)), glipizide (Glucotrol), tolbutamide (Orinase), and others.

Medications that increase the chance of having a seizure (Seizure threshold lowering drugs)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Some medications increase the chance of having a seizure. Taking ginkgo might cause seizures in some people. If this combination is taken, it might greatly increase the chance of having a seizure. Do not take ginkgo with medications that increase the chance of having a seizure.

Some medications that increase the chance of having a seizure include anesthesia (propofol, others), antiarrhythmics (mexiletine), antibiotics (amphotericin, penicillin, cephalosporins, imipenem), antidepressants (bupropion, others), antihistamines ([ciproheptadine](#), others), immunosuppressants (cyclosporine), narcotics (fentanyl, others), stimulants (methylphenidate), theophylline, and others.

Medications used to prevent seizures (Anticonvulsants)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Medications used to prevent seizures affect chemicals in the brain. Ginkgo can also affect chemicals in the brain in a way that might possibly decrease the effectiveness of medications used to prevent seizures.

Some medications used to prevent seizures include [phenobarbital](#), primidone ([Mysoline](#)), valproic acid ([Depakene](#)), gabapentin ([Neurontin](#)), carbamazepine ([Tegretol](#)), phenytoin (Dilantin), and others.

Trazodone (Desyrel)

Interaction Rating: **Moderate** Be cautious with this combination.

Talk with your health provider.

Trazodone (Desyrel) affects chemicals in the brain. Ginkgo can also affect chemicals in the brain. Taking trazodone (Desyrel) along with ginkgo might cause serious side effects in the brain. One

person taking trazodone and ginkgo went into a coma. Do not take ginkgo if you are taking trazodone (Desyrel).

Hydrochlorothiazide

Interaction Rating: **Minor** Be cautious with this combination.

Talk with your health provider.

Hydrochlorothiazide is used to help decrease swelling and control blood pressure. Taking hydrochlorothiazide along with ginkgo might increase blood pressure. Before taking ginkgo, talk to your healthcare provider if you take medications for high blood pressure.

Omeprazole (Prilosec)

Interaction Rating: **Minor** Be cautious with this combination.

Talk with your health provider.

Omeprazole (Prilosec) is changed and broken down by the liver. Ginkgo might increase how fast the liver breaks down omeprazole (Prilosec). Taking ginkgo with omeprazole (Prilosec) might decrease how well omeprazole (Prilosec) works.

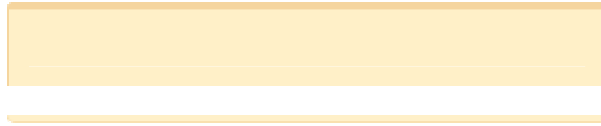
Dosing considerations for Ginkgo

- For dementia syndromes: a dosage of 120-240 mg per day of ginkgo leaf extract, divided in two or three doses.
- For cognitive function improvement in healthy young people: dosages of 120-600 mg per day.
- For Raynaud's disease: a dosage of 360 mg per day of ginkgo leaf extract, divided into three doses.
- To relieve walking pain in people with intermittent claudication: a dosage of 120-240 mg per day of ginkgo leaf extract, divided into two or three doses, has been used; however, the higher dose may be more effective.
- For vertigo: dosages of 120-160 mg per day of ginkgo leaf extract, divided into two or three doses.
- For premenstrual syndrome (PMS): 80 mg twice daily, starting on the sixteenth day of the menstrual cycle until the fifth day of the next cycle.
- For the treatment of normal tension glaucoma: ginkgo leaf extract 40 mg 3 times daily up to four weeks.

For all uses, start at a lower dose of not more than 120 mg per day to avoid gastrointestinal (GI) side effects. Increase to higher doses indicated as needed. Dosing may vary depending on the specific formulation used. Most researchers used specific standardized Ginkgo biloba leaf extracts. Some people take 0.5 mL of a standard 1:5 tincture of the crude ginkgo leaf three times daily.

You should avoid crude ginkgo plant parts. These can contain dangerous levels of the toxic chemicals found in the seed of the plant and elsewhere. These chemicals can cause severe allergic reactions.

Illnesses caused by Inflammation



(NaturalNews) There is a surprising link between Heart Attacks, Cancer, Alzheimer's and other diseases. These other diseases include all forms of Autoimmune disorders including Arthritis and MS, Parkinson's, Osteoporosis, Diabetes, Obesity, Allergies including Asthma and Food Intolerances, Chronic Fatigue Syndrome, Fibromyalgia and many other pain disorders. And there is much evidence to suggest that the link is inflammation. The modern diet and lifestyle is likely to cause inflammation in the body, and this can lead to a variety of illnesses.

Inflammation is now the hottest area of medical research, as drug companies rush to find remedies for this modern day epidemic. Unfortunately, these drugs are generally dangerous and don't get to the root of the problem.

Inflammation is the age-old immunological defense mechanism that causes the area of tissue of an injury to become red, hot and swollen. Most of the time, [inflammation](#) is a lifesaver that enables our bodies to fend off various disease-causing bacteria, viruses and [parasites](#). The inflammatory response should subside after it has fought off any invaders to an injury site and has allowed the healing to begin. However in certain circumstances, the inflammatory response fails to shut down and becomes chronic.

This is often due to poor dietary and lifestyle factors which promote chronic inflammation. Immune cells use "[free radicals](#)" to kill off pathogens and other foreign invaders. Free radicals (also known as reactive oxygen species) are unstable particles which puncture and damage cells around them. This is great for killing [bacteria](#), but it can also damage healthy cells if allowed to become out of control. In a body with chronic inflammation, there is therefore increased free radical or "oxidative" stress in the body. Free radicals damage blood vessels, joints, cell membranes, nerves and just about any other part of the body - this is why chronic inflammation is so bad for us. Free radical stress is also essentially how we age.

The body has an army of natural defense against free radicals; these are known as [anti-oxidants](#). In states of chronic inflammation, the body can become depleted of anti-oxidants, and hence free radical stress does a lot of damage. This in turn causes more inflammation and more free radicals! It is essential to break this

cycle of damage by lowering factors which promote inflammation, and by boosting our anti-oxidant status through dietary and lifestyle changes.

One last point - do we want to "boost" our [immune system](#) if it is already "over-active" due to inflammation? The answer is yes and no! There is only one PART of the immune system which gets over-active and begins to create problems with inflammation. Another part of the immune system works along a different line of attack; it does not create inflammation, but does a very important job fighting off bacteria, parasites, cancers cells and [viruses](#). Many people today have signs of inflammation, yet also come down with yeast [infections](#), viruses, dental infections and so on. In a sense their immune system needs modulation, reduction of the pro-inflammatory side, and a boost to the other side which fights off the baddies without inflammation.

Risk factors which promote inflammation:

-A poor diet can create micro-nutrient deficiencies. Type "B" malnutrition is rampant in the Western countries. This is a diet high in calories but deficient in nutrients, resulting in [obesity](#) and poor health. Micro-nutrient deficiencies make us more susceptible to low grade infections such as helicobacter pylori (the cause of stomach ulcers), gum [disease](#), recurrent urinary tract infections, and Chlamydia. All low grade chronic infections can set up a chronic inflammation in the body.

-Poor gut [health](#). A significant part of the immune system is found in the gut. The immune system in the gut is one of the most important first lines of defense against the outside world; after all, it is the area where matter from the outside is brought inside the body. The gut contains many billions of bacteria; most of them are good and help promote good immunity as well as good digestion, and they help with the absorption of nutrients. However, if there is an over-growth of "bad bacteria", these produce toxins and trigger the immune system. This is known as gut dysbiosis and can trigger a systemic low grade inflammation throughout the body's immune system. A symptom of poor gut health are [food](#) intolerances. A diet low in fiber and high in saturated fat and [sugar](#) promotes gut dysbiosis. Constipation is very bad for your health!

-Stress causes inflammation through worsening gut health, makes the body more susceptible to chronic low grade infections and lowers the immunity to bacteria, viruses, parasites and so on. All of this can trigger inflammation. Stress can also reduce cortisol hormone levels if adrenals are exhausted, which is a natural anti-inflammatory hormone.

-Obesity. Fat cells behave like immune cells, spewing out messages to increase the inflammatory immune response. Therefore a sedentary lifestyle and a diet high in fat and sugar promote inflammation.

- Environmental pollution such as pesticides, heavy metals and other toxic chemicals from things like exhaust fumes and electrical appliances.

-Excessive sunlight since sun burn is free radical stress.

-Excessive exercise since the process of energy production produces free radicals as a by-product. Some exercise is good for you but overdoing it at the gym every day is very bad for you.

-Trans and hydrogenated fats made from over-heating vegetable oils. These are also found in processed and refined [foods](#) and deep fried foods.

-A diet deficient in anti-oxidants; (anti-oxidants can be found in most fruit and vegetables).

www.medterms.com/script/main/art.as...

nutrition.about.com/od/.../a/antiinflamfood.htm

users.rcn.com/jkimball.ma.ultranet/.../I/Inflammation.html



Photo: ZUMA Press

Food Addiction

Put down that cookie and read this.

According to a recent study presented at the Society for Neuroscience's annual meeting in October, rats that are given unlimited amounts of junk food had similar addictive behaviors to rats addicted to heroin.

"This is the most complete evidence to date that suggests obesity and drug addiction have common neurobiological underpinnings," explained study coauthor Paul Johnson of the Scripps Research Institute to [ScienceNews](#).

The reason is that the pleasure centers in the brains of rats became less responsive as the rats continued to binge on high-fat, high-calorie foods. Much like heroin addicts, the rats had to consume more and more of the addictive substance just to get a sugar high.

"They lose control," said coauthor Paul Kenny. "This is the hallmark of addiction."

To see how this works, the researchers fed the rats either entirely healthy diets or entirely unhealthy diets. The junk food diets consisted of foods like bacon and cheesecake.

Not surprisingly, the rats that ate the junk food diet soon developed compulsive eating habits and became obese.

What's surprising is that the addiction to junk food was so strong that the rats were willing to get shocked in the foot just to get more junk food. Talk about motivation!

Though the rats that didn't get the junk food in the beginning quickly stopped eating the high-fat food once they got shocked, the foot shock didn't faze rats already accustomed to the junk food. They just kept on eating, in spite of the oncoming shock.

"What we have are these core features of addiction, and these animals are hitting each one of these features," Kenny explained.

Even weeks after the rats were off of the junk food diet, the researchers found that the "reward pathway deficits" still persisted, which shows just how difficult it is to give something up once you've become addicted to it in the past.

"It's almost as if you break these things, it's very, very hard to go back to the way things were before," Kenny says.

Even when there was only a choice between healthy food and no food at all, the rats chose the no food option.

"They starve themselves for two weeks afterward," Kenny said. "Their dietary preferences are dramatically shifted."

Of course, the real significance of the study is not whether fat rats can become addicted to candy and cookies, but rather what the effects of eating these types of foods over the long term might have on the reward system.

"We might not see it when we look at the animal," says obesity expert Ralph DiLeone of Yale University School of Medicine. "They might be a normal weight, but how they respond to food in the future may be permanently altered."

Ever felt like your constant cravings for chocolate, cookies or cheese are beyond your control? According to the author of *Breaking the Food Seduction*, you're right.

There are biological reasons for those cravings, and people who think that they are too weak-willed to stop eating their favorite foods may simply be addicted to them, said Dr. Neal Barnard, president and founder of the Physicians Committee for Responsible Medicine and an adjunct professor at the George Washington University School of Medicine.

"Certain foods — chocolates, cheeses, sugars, starches and meats — are capable of stimulating the same part of the brain that responds to alcohol, tobacco, even heroin," Barnard said. "They unleash a chemical called dopamine, the brain's feel-good chemical, and that's why those foods are addictive."

Foods that produce such cravings, and sabotage healthy diets, include sugary and starchy foods such as cookies, cakes and white bread, as well as chocolate, cheese and meat. As with drugs, coffee or alcohol, people go into withdrawal when they don't have the foods.

"That's where the cravings come from," Barnard said. "People feel hooked on these foods."

Mood-Lifting Meals

Those foods all stimulate the release of opiates in the brain, lifting your mood, he said.

Some are not only addicting, but are appetite stimulants as well.

They play havoc with your blood sugar, which brings on cravings. Basically, the rush of sugar in the blood causes a person's energy to rise too quickly. After the rise, the energy falls just as quickly, so the person feels as though they need to eat something to bring it back up again.

Not all starchy foods are on the list. Pasta, for instance, does not cause a blood sugar spike.

"Eat it — it's not a bad starch," Barnard said.

Despite the fact that certain foods are addictive, it doesn't mean people should cut them out of their diets entirely. Instead, they should give themselves a break for them. The more you eat, the more you crave, Barnard says.

When I eat a meal of real whole food and I'm finished with it I don't give food a second thought until my next meal and occasional snack. I've tried to explain this to so many people who tell me they've started "diets" in order to lose weight or feel better. Diets typically consist of smaller portions of processed foods and never work because this type of food is fattening, causes you to crave more, and is nutrient poor. The following piece explains more:

With the rumors swirling that Michelle Obama is a big fan of former FDA Commissioner David Kessler's new book *The End of Overeating*, it seems reasonable to check in on the science behind an "addiction model" for salty, sweet, and fatty processed food (an assertion at the core of the book). As it happens, a group of researchers from the independent, not-for-profit Scripps Research Institute has just released a new peer-reviewed study on the subject. The conclusion: the brain responds to junk food the same way it does to heroin:

Junk food elicits addictive behavior in rats similar to the behaviors of rats addicted to heroin, a new study finds. Pleasure centers in the brains of rats addicted to high-fat, high-calorie diets became less responsive as the bingeing wore on, making the rats consume

more and more food. The results, presented October 20 at the Society for Neuroscience's annual meeting, may help explain the changes in the brain that lead people to overeat.

"This is the most complete evidence to date that suggests obesity and drug addiction have common neurobiological underpinnings," says study coauthor Paul Johnson of the Scripps Research Institute in Jupiter, Fla.

Johnson offered one group of rats a broad range of processed food, from bacon and cheesecake to Ho Hos while another received a "high-nutrient, low-calorie chow." There was an immediate difference:

Rats that ate the junk food soon developed compulsive eating habits and became obese. "They're taking in twice the amount of calories as the control rats," says Johnson's coauthor Paul Kenny, also of Scripps.

The researchers also tested the responsiveness of the animals' pleasure centers:

After just five days on the junk food diet, rats showed "profound reductions" in the sensitivity of their brains' pleasure centers, suggesting that the animals quickly became habituated to the food. As a result, the rats ate more food to get the same amount of pleasure. Just as heroin addicts require more and more of the drug to feel good, rats needed more and more of the junk food. "They lose control," Kenny says. "This is the hallmark of addiction."

And here's where things get ugly. The rats wanted their junk food fix so badly, they were willing to tolerate electric shocks if that's what it meant to keep eating the stuff.

To see how strong the drive to eat junk food was, the researchers exposed the rats to a foot shock when they ate the high-fat food. Rats that had not been constantly exposed to the junk food quickly stopped eating. But the foot shock didn't faze rats accustomed to the junk food — they continued to eat, even though they knew the shock was coming.

"What we have are these core features of addiction, and these animals are hitting each one of these features," Kenny says.

Because a study like this isn't complete without a sinister postscript, I give you this:

Scientists are interested in determining the long-term effect of altering the reward system. "We might not see it when we look at the animal," says obesity expert Ralph DiLeone of Yale University School of Medicine. "They might be a normal weight, but how they respond to food in the future may be permanently altered."

Eating junk food for a while could leave your brain's response to food "permanently altered"? How. Nice.

Kinda puts industry calls for preserving consumer "choice" regarding the foods we eat into perspective, doesn't it? When it's an addiction, choice is the last thing we have. Besides giving ammunition to those wanting to restrict access to these foods for children (well, for anyone really), this study certainly ensures that I will never look at a Ho Ho the same way again.

Secret Lives of Household Items

Check Out the Secret Uses of Everyday Items to Help With Your Chores

March 5, 2009



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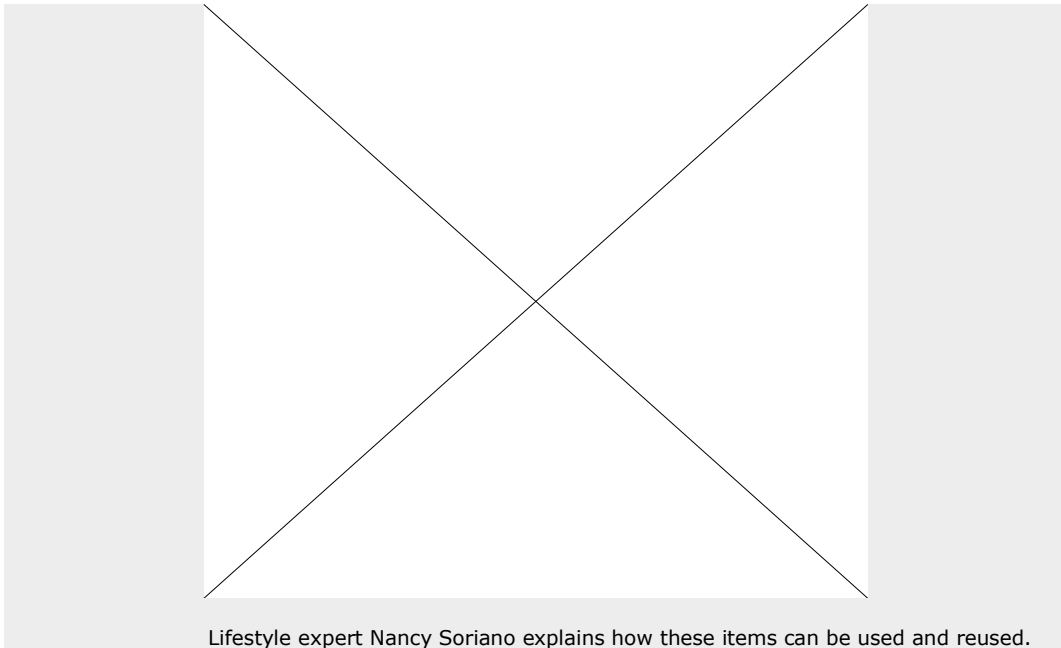
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You've got a pile of household [chores](#) to do and errands to run, and you're running a little short on cash.



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Most people would be stressing, sweating their way from task to task, but not you. You're cool.

Why? Because "Good Morning America" and lifestyle expert [Nancy Soriano](#) have teamed up to bring together some of the most resourceful household tips and tricks to cut down on time and expenses using some familiar [household items](#) in some less-familiar ways.

Take note and complete those chores in no time and in a style that would make MacGyver jealous.

Cleaning With Alka-Seltzer or Coca-Cola

On the one hand, you've got a dirty toilet or pots and pans. On the other, you've got a can of [Coca-Cola](#) and Alka-Seltzer. No problem.

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According to Soriano, you can drop two tablets of Alka-Seltzer in the toilet, wait twenty minutes, brush and then flush for a squeaky clean toilet. The phosphoric acid in Coca-Cola can also do the trick.

For pots and pans, pouring a thick layer of soda directly on pans with badly burned-on food and sprinkling on just a little water can help loosen the food. Leave it soaking overnight and scrub clean the next day.

Doing Double-Time Ironing With Aluminum Foil

Ironing can be time-consuming, but what if you could do it in half the time?

Sliding a sheet of aluminum foil under the ironing board cover can get that done. The foil reflects the heat from the iron so that both sides get heated and ironed at the same time.

Eat a Banana, Then Polish Your Shoes

Banana peels aren't just for comedic value anymore.

The banana might taste good, but the banana peel is where the fruit can really shine, literally.

After de-stringing the banana, it can be used to shine anything from leather shoes to household plant leaves. For a final touch, give them a nice buffing with a soft cloth or paper towel.

According to Soriano, one reason the banana peel works so well is because bananas contain potassium, an ingredient it shares with shoe polish.

Secret Lives of Household Items

Check Out the Secret Uses of Everyday Items to Help With Your Chores

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Ordinary household items can have a double-function. Alka-seltzer and soda can be used to clean toilets, for example.

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De-Stink Pets and Repel Bugs with Dryer Sheets

After your [dog or cat](#) bounds inside after a rainy day or a nice swim, head him or her off at the pass with a dryer sheet. Scrubbing your pet down with one of these will keep that wet-animal odor down and your pet nice and dry.

Dryer sheets have also been said to repel bugs, especially [mosquitos](#). Tucking some sheets in a picnic basket or under patio furniture could help make your afternoon in the countryside or barbecue more pleasant.

Rubbing Alcohol, Water and Newspapers for Clean Windows

Just because you have an empty spray bottle doesn't mean it's useless.

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You can make a do-it-yourself cleaner by taking that spray bottle and pouring in a quart of water and then adding three tablespoons of rubbing alcohol. Spray the cleaner on a dirty window and use a newspaper to wipe it down.

Then sit back and enjoy a crystal-clear view.

Dry Your Clothes Faster With Tennis Balls

Tired of waiting around while your clothes spin and spin in the dryer?

Cut down on the time by throwing something new into the mix: tennis balls.

Tossing two or three tennis balls (clean ones) into the dryer with your clothes help the air and heat circulate, meaning your clothes get dryer even more quickly.

The tennis balls help for a full load of laundry or just one item.

Aspirin Helps Remove the Headache of Sweat Stains

The bad news is that sometimes work can give you headaches and sweat stains.

The good news is that, if you know what you're doing, aspirin can help both.

Dissolve two aspirin in a half cup of warm water and then apply to the stained fabric.

Leave it alone for a couple hours and then wash.

By the time you're done, your headache should have subsided and your clothes should be stain-free.