

# Just To Be on the Safe Side: Don't Take Vitamins

No one loves me more than my mother; even though there were times during my childhood when I thought she was trying to poison me. Could the chemical aftertaste, belching, and nausea I experienced following the One-a-Day multivitamin capsule she forced me to take along with my orange juice at breakfast have been a warning? She told me vitamins tasted bad, like medicine, so that if a little child found them he or she wouldn't mistake these pills for candy. By this time in history, medical achievements included the cure of deadly vitamin deficiency diseases, such as scurvy, beriberi, and pellagra. People reasoned, if a few vitamins can cure these ravagers of health, then maybe the answers to cancer or heart disease will be found in supplements too. Why not? This was during the atomic bomb era following WWII when people believed that science would someday soon find the answer to all things important.

Nearly forty percent of the US population takes supplements, with many people spending hundreds of dollars a month. Based on what objective evidence? How many friends and relatives do you know who have suffered from illnesses caused by a vitamin deficiency, such as scurvy from vitamin C deficiency, beriberi from insufficient vitamin B1, or pellagra from a lack of niacin? How about protein or essential fatty acid deficiencies? The truth is *none*. Now, turn your vision 180 degrees. I'll ask you the opposite question. How many of your friends and relatives have diseases caused by nutritional excesses—from consuming too much cholesterol, fat, sodium, protein and/or far too many calories? The answer is *most of them*.

# **Better Breathing from Diet**

Asthma medication sales were \$15 billion in 2008 and projected to reach \$17 billion by 2010 with an estimated 300 million people in Western societies suffering with breathing difficulties. Asthma is the active airway constriction (bronchospasm) component of a triad that makes up chronic obstructive pulmonary disease (COPD). Bronchitis is the inflammatory part of COPD and the end result of years of inflammation is emphysema (fibrosis or scarring).

Certainly our atmosphere is becoming more polluted with irritating chemicals and particles. And, of course, the first actions to take are to clean up your air by stopping smoking, avoiding dirty air, and using air purifiers. The other factor you potentially have complete control over is your diet, which I believe is the main cause of the escalating epidemic of lung diseases we are now experiencing. **PAGE 9** 

# **Featured Recipes**

BBQ Pulled Jackfruit Creamy-style Coleslaw Dilled Coleslaw Tofu Sour Cream Quick Coleslaw Golden Sautéed Onions Inside-Out Lasagna Tofu Ricotta Beans & Greens Salad Spinach, Fennel and Mango Salad



# Just To Be on the Safe Side: Don't Take Vitamins

No one loves me more than my mother; even though there were times during my child-

hood when I thought she was trying to poison me. Could the chemical aftertaste, belching, and nausea I experienced following the One-a-Day multivitamin capsule she forced me to take along

with my orange juice at breakfast have been a warning? She told me vitamins tasted bad, like medicine, so that if a little child found them he or she wouldn't mistake these pills for candy. By this time in history, medical achievements included the cure of deadly vitamin deficiency diseases, such as scurvy, beriberi, and pellagra. People reasoned, if a few vitamins can cure these ravagers of health, then maybe the answers to cancer or heart disease will be found in supplements too. Why not? This was during the atomic bomb era following WWII when people believed that science would someday soon find the answer to all things important.

Nearly forty percent of the US population takes supplements, with many people spending hundreds of dollars a month. Based on what objective evidence? How many friends and relatives do you know



who have suffered from illnesses caused by a vitamin deficiency, such as scurvy from vitamin C deficiency, beriberi from insufficient vitamin B1, or pellagra from a lack of niacin? How about protein or essential fatty acid deficiencies? The truth is none. Now, turn your vision 180 degrees. I'll ask you the opposite question. How many of your friends and relatives have diseases caused by nutritional excesses—from consuming too much cholesterol, fat, sodium, protein and/or far too many calories? The answer is most of them.

Health problems from excesses cannot be corrected with treatments useful for deficiencies. Have you ever known a person who has lost 100 pounds by taking supplements or cured their arthritis, hypertension, colitis, or type-2 diabetes through vitamin and mineral therapies? I bet you haven't and neither have I. But every day I have contact with someone, in person or by e-mail, who has achieved such benefits by changing their diet and going for a daily walk out in the sunshine. Thus, there is no "bang for the buck" in believing in supplements. They simply don't work for the problems that currently plague people. Doctors who prescribe supplements are practicing "faith-based medicine." They must believe, because there is no good evidence supporting their actions—no valid research to guide them and no patient results to reward them.

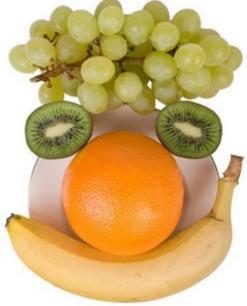
## **Supplements Are Not Food**

In an effort to improve on Mother Nature's creations, and to make big fat profits, scientists and entrepreneurs have developed thousands of products based on isolated concentrated nutrients. The enterprise begins by finding a pharmacologically active ingredient in a common food. Through science and manufacturing tech-

#### The McDougall Newsletter www.drmcdougall.com Page 3

nology this substance is purified, then replicated into large quantities, and sold to the customer as a "potent, but natural remedy." Familiar examples of such concentrates include isolates of soy and whey proteins, omega-3 fish and flaxseed oils, and vitamins and minerals. These magic bullets are delivered to the consumer in the form of pills, powders, liquids, nutrition bars, "health" drinks, and fortified foods. They are supposed to offset the effects of destructive habits and fix the customers' bad health, naturally (like with no side effects) and almost effortlessly. High profits, and the satisfaction of consumers' desires for quick fixes, guarantee healthy businesses based on selling various concentrates.

Vitamins are organic compounds that cannot be synthesized by the human body and therefore must be eaten in order for us to remain healthy and prevent serious illnesses. Plants synthesize 11 of the 13 known vitamins. Vitamin D is actually not a vitamin, but a hormone manufactured by the body with the action of sunlight on the skin, and bacteria make the only non-plant-derived vitamin, which is B12. Plants are also the source for minerals, all of which originate in the ground and enter into living systems through the roots of plants. Plant parts (starches, vegetables, and fruits) are the proper packages for delivering these, and many more, essential nutrients to the body. A harmonious relationship between people and plants translates into good health.



# The Whole Is Much Greater than the Parts

Place an assortment of fruit on the table in front of you. Can you identify the yellow banana? Are you having any trouble picking out the orange? Are you calling the small, oblong round green objects grapes? Notice that you have no difficulty distinguishing between and properly naming each and every fruit. This is because their precise and perfect molecular architecture results in a distinct easily identifiable form for each and every fruit (and vegetable). Tens of thousands of proteins, fats, carbohydrates, fibers, vitamins, minerals and other phyto (plant)-chemicals are present in proper amounts, kinds, and physical positions within each food. If not for the exact correctness then you would not have a green kiwi fruit.

Good nutrition begins as the whole food is chewed into smaller parts and swallowed. The masticated parts still contain all of the basic components and most of the same physical relationships as the original whole food. After more digestion, these food parts enter the blood stream and are carried to the body's 10 trillion cells. This blood-borne mixture of nutrients actively passes through the cells' membranes into the inner cellular fluid (cytoplasm). Here this vital balance of nutrients provides the raw materials for the cellular machinery to run properly. If too few or too many of any of the components of the digested and assimilated food are present within the cell then imbalances occur, resulting in less than optimal function at the cellular level, followed by disease. Scientists barely understand the orchestrations that take place between our foods and our bodies. But they do recognize that perfect harmony exists.

The McDougall Newsletter

# Supplements Make People Sick

People believe in supplements, even though the preponderance of scientific evidence condemns taking isolated concentrated nutrients. Most carefully studied are the effects of beta-carotene, vitamin E (alphatocopherol), and folic acid. Randomized controlled trials involving more than a hundred thousand subjects have proven that taking these and other supplements increase a person's risk of heart disease, cancers, and premature death. Damage to the kidneys in diabetics and an increase in the severity of respiratory infections have also been shown. (See below for details on some of these major studies.) Vitamin supplement manufacturers, stores selling vitamins, medical doctors, and dietitians should act responsibly and warn consumers about the serious health hazards from these highly profitable potions.<sup>1</sup> For the same reasons, fortification of our food supply (cereals and flours) with folic acid and other nutrients should be stopped.<sup>2</sup>

Two highly respected Cochrane Reviews published in 2008 concluded, "Beta-carotene, vitamin A, and vitamin E given singly or combined with other antioxidant supplements significantly increase mortality (death)."<sup>3,4</sup> There is no higher authority than a report from the Cochrane Collaboration.

## Supplements Kill By Causing Metabolic Imbalances

Three decades ago it was well established that people who consume more beta-carotene in their diets are less likely to develop many kinds of cancer, including lung cancer.<sup>5,6</sup> Following this observation, a hypothesis was developed that a single nutrient, beta-carotene, was the key to cancer prevention. Two well-designed trials published in 1994 and 1996 compared the effects of taking beta-carotene supplements to a placebo for people at high risk for developing lung cancer (smokers and those exposed to asbestos).<sup>7,8</sup>

Unexpectedly, in these two investigations more cancers were found in those people taking the beta-carotene pills. However, these findings did not invalidate the original observation: People who eat more fruits and vegetable have a lower risk of cancer. Beta-carotene is only found in plants, thus serves as a marker for the quantity of fruits and vegetables consumed. What is true is that a diet high in plant foods protects against cancer. The same effect does not carry over to consuming single nutrients, like beta-carotene. A pill is not a plant.

Beta-carotene is one of about 50 similar naturally occurring active substances in our diet classified as carote-

*noids*. They are all especially abundant in yellow and orange fruits and vegetables. After nutrients enter cells they float around in the cell's fluids (cytoplasm) until they attach themselves to the cellular machinery through a specific receptor, like a key fits into a lock. Beta-carotene and all of the other biologically active carotenoids must attach to these specific carotenoid receptors before they can function.

When a cell is flooded with one kind of carotenoid, in this case betacarotene after vitamin supplementation, then there is an overwhelming



The McDougall Newsletter www.drmcdougall.com Page 5

competition for the carotenoid receptor sites.<sup>9</sup> The other 50 functional carotenoids are displaced by the betacarotene from their cellular connections, creating deadly nutritional imbalances.

Consider this analogy: A person drives from home to work. After entering the building, the typical employee begins the day by walking around and greeting fellow workers, stopping by the water cooler to catch up on some daily gossip. So far nothing productive for the company has been accomplished. Finally, the worker sits at his or her designated workstation—say a desk with a computer and a telephone—and becomes productive. At this place of business there are many workstations and many workers with different talents—accountants, secretaries, designers, managers, etc.—who collectively and interactively make the company run productively and profitably. This would all change if one day the boss decided to hire a hundred extra accountants without any real need for their services, and to make matters worse, without adding any new workstations. The result would be chaos and soon bankruptcy from the disharmony created in the organization.

## Save Your Money and Your Health

In the mid-nineties I was the host of a Sunday evening radio talk show called "To Your Health." My two-hour broadcast was carried by the largest radio stations in the biggest cities, such as Los Angeles (KABC), San Diego (KSDO), Sacramento (KSTE), and San Francisco (KNBR), all over the west coast and was heard by millions of people. I received over 2000 phone calls each evening on average (of course, only a fraction of those callers could be answered). The show's sponsors were mostly natural food stores and their top revenue streams came from the supplement aisles. During my monologue at the beginning of each show I would discuss the newest scientific research. I tried to balance "negative" articles, such as, vitamin A (Retinol) causes a 1 in 57 chance of birth defects when taken by a pregnant woman and increases hip fractures in elderly adults, with "positive" ones, for example, folic acid supplementation taken before pregnancy reduces the risk of serious birth defects.<sup>10-13</sup>

However, I wasn't balanced enough for one group of "vitamin activists" from Los Angeles who edited together excerpts of my anti-supplement messages into a tape played for my sponsors each Monday morning. Fortunately, I weathered these attacks and survived for three years on this large network. In time, the really big sponsors of these powerful radio stations took a listen to my anti-meat, anti-dairy, and antipharmaceutical messages. In spite of my popularity I lost all of my shows over a three-week period in 1996. Money talks, even on talk radio. But that does not change the truth.

Whether you are scientifically minded and believe in the perfection created by 400 million years of evolution, or devoutly religious and believe in the perfection of a Divine Creator, or both, you must believe that the world we live in is inherently correct. The trillions of interactions that occur between flora, fauna and Mother Earth are purposeful and harmonious. You have also observed that man's interference with Nature's mysterious workings usually results in unintended catastrophes. Failure to follow the natural starch-based diet for humans is the reason more than a billion people are overweight and sick today. Trying to fix modern day

## Randomized Controlled Trials Prove Supplements Are Dangerous:

### More Cancer

**The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group.** A total of 29,133 male smokers were assigned to one of four regimens: alpha-tocopherol (vitamin E) alone, beta-carotene alone, both alpha-tocopherol and beta-carotene, or placebo.<sup>7</sup> *Findings:* 18 percent more lung cancer and 8 percent more deaths in those taking the preparations with beta-carotene.

**The Beta Carotene and Retinol Efficacy Trial.** A total of 18,314 smokers, former smokers, and workers exposed to asbestos assigned to take beta-carotene and retinol (vitamin A) or placebo.<sup>8</sup> *Findings:* 17 percent more deaths, 46 percent more lung cancer, and 26 percent more cardiovascular disease for those taking the supplement.

**The Selenium and Vitamin E Cancer Prevention Trial (SELECT).** A total of 35,533 men were assigned to one of four groups: selenium, vitamin E, selenium plus vitamin E, or placebo.<sup>15</sup> *Findings:* 13 percent more prostate cancer for the vitamin E groups. No prevention of prostate cancer by any supplement intervention.

### More Heart Disease

**MRC/BHF Heart Protection Study.** A total of 20,536 adults with coronary disease, other occlusive arterial disease, or diabetes were allocated to receive antioxidant vitamin supplementation (vitamin E, vitamin C, and beta-carotene daily) or placebo.<sup>16</sup> *Find-ings:* Increased vitamin concentrations in the subjects' blood, but no reductions in vascular disease, cancer, or death.

**Alpha-tocopherol Beta-carotene Cancer Prevention Study.** A total of 1862 male smokers who had had a previous myocardial infarction were assigned to dietary supplements of alpha-tocopherol, beta-carotene, both, or placebo.<sup>17</sup> *Findings:* There were 75% more deaths from fatal coronary artery disease in the beta-carotene groups and a slight increase in the alpha-tocopherol groups.

**The HOPE-TOO trial.** A total of 9541 patients were assigned to vitamin E or placebo.<sup>18</sup> *Findings:* No difference in cancer or cardiovascular deaths. Patients in the vitamin E group had a higher risk of heart failure.

**Folate After Coronary Intervention Trial.** A total of 636 patients with heart artery stents were assigned to receive folic acid, vitamin B6, and vitamin B12 or placebo.<sup>19</sup> *Findings:* Greater restenosis (artery closure) and repeat heart surgery for those taking the supplement with folic acid.

**The NORVIT Trial.** A total of 3749 men and women who had had an acute myocardial infarction within seven days were assigned to be in one of four groups: folic acid, vitamin B12, and vitamin B6; folic acid and vitamin B12; vitamin B6; or placebo.<sup>20</sup> *Findings:* Homocysteine decreased by 27 percent, but the risk of heart attack, stroke, and cancer was increased by 20 to 30 percent in the groups with the folic acid supplement.

**Women's Antioxidant and Folic Acid Cardiovascular Study.** 5442 women with either a history of CVD or 3 or more coronary risk factors were assigned to receive folic acid, vitamin B6, and vitamin B12, or placebo.<sup>21</sup> *Findings:* Homocysteine decreased by 19 percent, but the risk of heart attacks, strokes, heart surgery, and death was not reduced.

### More Kidney Damage in Diabetics

The Diabetic Intervention with Vitamins to Improve Nephropathy Trial. A total of 238 participants who had type-1 or -2 diabetes and a clinical diagnosis of diabetic nephropathy (kidney disease) were assigned to folic acid, vitamin B6, and vitamin B12, or placebo.<sup>22</sup> *Findings:* The vitamin group had worse kidney function and twice as many vascular events.

## More Fractures in Elderly

High Dose Oral Vitamin D Trial. A total of 2256 community-dwelling women, aged 70 years or older, were assigned to receive 500,000 IU of Vitamin D (cholecalciferol) or placebo.<sup>23</sup> *Findings*: Women taking the vitamin D had more falls and fractures.

## More Severe Respiratory Infections

A Randomized Trial on Vitamin E and Infections. A total of 652 non-institutionalized elderly were assigned multivitamin-minerals, 200 mg of vitamin E, both, or placebo.<sup>24</sup> *Findings:* No change in frequency of respiratory infections, but the severity was worse in those taking vitamin E.

# May 2010 The McDougall Newsletter

faith in supplements to stop.

# **References:**

1) Miller ER 3rd, Guallar E. Vitamin E supplementation: what's the harm in that? *Clin Trials.* 2009 Feb;6(1):47-9.

2) Hubner RA, Houlston RD, Muir KR. Should folic acid fortification be mandatory? No. *BMJ*. 2007 Jun 16;334(7606):1253.

3) Bjelakovic G, Nikolova D, Simonetti RG, Gluud C. Antioxidant supplements for prevention of mortality in healthy participants and patients with various diseases. *Cochrane Database Syst Rev*. 2008 Apr 16;(2):CD007176.

4) Bjelakovic G, Nikolova D, Simonetti RG, Gluud C. Antioxidant supplements for preventing gastrointestinal cancers.

Cochrane Database Syst Rev. 2008 Jul 16;(3):CD004183.

5) Peto R, Doll R, Buckley JD, Sporn MB. Can dietary beta-carotene materially reduce human cancer rates? *Nature.* 1981 Mar 19;290(5803):201-8.

6) Bjelke E. Dietary vitamin A and human lung cancer. Int J Cancer. 1975 Apr 15;15(4):561-5

7) The effect of vitamin E and beta carotene on the incidence of lung cancer and other cancers in male smokers. The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group. *N Engl J Med.* 1994 Apr 14;330(15):1029-35.

8) Omenn GS, Goodman GE, Thornquist MD, Balmes J, Cullen MR, Glass A, Keogh JP, Meyskens FL, Valanis B, Williams JH, Barnhart S, Hammar S. Effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease. *N Engl J Med.* 1996 May 2;334(18):1150-5.

9) Pietrzik K. Antioxidant vitamins, cancer, and cardiovascular disease. N Engl J Med. 1996 Oct 3;335(14):1065-6;

10) Dolk HM. Dietary vitamin A and teratogenic risk: European Teratology Society discussion paper. *Eur J Obstet Gynecol Reprod Biol.* 1999 Mar;83(1):31-6.

11) Rothman KJ. Teratogenicity of high vitamin A intake. N Engl J Med. 1995 Nov 23;333(21):1369-73.

12) Michaelsson K. Serum retinol levels and the risk of fracture. *N Engl J Med.* 2003 Jan 23;348(4):287-94.

May 2010 The McDougall Newsletter www.drmcdougall.com

Page 8

13) Blencowe H, Cousens S, Modell B, Lawn J. Folic acid to reduce neonatal mortality from neural tube disorders. Int J Epidemiol. 2010 Apr;39 Suppl 1:i110-21.

14) http://www.npicenter.com/anm/templates/newsATemp.aspx?articleid=25335&zoneid=2

15) Lippman SM, Klein EA, Goodman PJ, Lucia MS, Thompson IM, Ford LG, et al. Effect of selenium and vitamin E on risk of prostate cancer and other cancers: the Selenium and Vitamin E Cancer Prevention Trial (SELECT). JAMA. 2009;301:39-51.

16) Heart Protection Study Collaborative Group. MRC/BHF Heart Protection Study of antioxidant vitamin supplementation in 20,536 high-risk individuals: a randomised placebo-controlled trial. Lancet. 2002 Jul 6;360(9326):23-33.

17) Rapola JM, Virtamo J, Ripatti S, Huttunen JK, Albanes D, Taylor PR, Heinonen OP. Randomised trial of alpha-tocopherol and beta-carotene supplements on incidence of major coronary events in men with previous myocardial infarction. Lancet. 1997 Jun 14;349(9067):1715-20.

18) Lonn E, Bosch J, Yusuf S, Sheridan P, Pogue J, Arnold JM, Ross C, Arnold A, Sleight P, Probstfield J, Dagenais GR; HOPE and HOPE-TOO Trial Investigators. Effects of long-term vitamin E supplementation on cardiovascular events and cancer: a randomized controlled trial. JAMA. 2005 Mar 16;293(11):1338-47.

19) Lange H, Suryapranata H, De Luca G, B<sup>^</sup>rner C, Dille J, Kallmayer K, Pasalary MN, Scherer E, Dambrink JH. Folate therapy and in-stent restenosis after coronary stenting. N Engl J Med. 2004 Jun 24;350(26):2673-81.

20) B naa KH, Nj Istad I, Ueland PM, Schirmer H, Tverdal A, Steigen T, Wang H, Nordrehaug JE, Arnesen E, Rasmussen K; NORVIT Trial Investigators. Homocysteine lowering and cardiovascular events after acute myocardial infarction. N Engl J Med. 2006 Apr 13;354(15):1578-88.

21) Albert CM, Cook NR, Gaziano JM, Zaharris E, MacFadyen J, Danielson E, Buring JE, Manson JE. Effect of folic acid and B vitamins on risk of cardiovascular events and total mortality among women at high risk for cardiovascular disease: a randomized trial. JAMA. 2008 May 7;299(17):2027-36.

22) House AA, Eliasziw M, Cattran DC, Churchill DN, Oliver MJ, Fine A, Dresser GK, Spence JD. Effect of Bvitamin therapy on progression of diabetic nephropathy: a randomized controlled trial. JAMA. 2010 Apr 28;303(16):1603-9.

23) Sanders KM, Stuart AL, Williamson EJ, Simpson JA, Kotowicz MA, Young D, Nicholson GC. Annual highdose oral vitamin D and falls and fractures in older women: a randomized controlled trial. JAMA. 2010 May 12;303(18):1815-22.

24) Graat JM, Schouten EG, Kok FJ. Effect of daily vitamin E and multivitamin-mineral supplementation on

# May 2010 The McDougall Newsletter

acute respiratory tract infections in elderly persons: a randomized controlled trial. *JAMA*. 2002 Aug 14;288(6):715-21.

# Better Breathing from Diet

Asthma medication sales were \$15 billion in 2008 and projected to reach \$17 billion by 2010 with an estimated 300 million people in Western societies suffering with breathing difficulties. Asthma is the active airway constriction (bronchospasm) component of a triad that

makes up chronic obstructive pulmonary disease (COPD). Bronchitis is the inflammatory part of COPD and the end result of years of inflammation is emphysema (fibrosis or scarring).

Certainly our atmosphere is becoming more polluted with irritating chemicals and particles. And, of course, the first actions to take are to clean up your air by stopping smoking, avoiding dirty air, and using air purifiers. The other factor you potentially have complete control over is your diet, which I believe is the main cause of the escalating epidemic of lung diseases we are now experiencing.



An unhealthy diet will increase a person's susceptibility to known causes of lung disease, such as allergens, tobacco smoke, infectious agents, and air pollution. One of the best examples of the importance of diet and lung health is demonstrated by the low incidence of lung cancer among Japanese cigarette smokers. The risk of lung cancer in the United States is at least 10 times higher than in Japanese living in Japan despite the higher percentage of smokers among the Japanese.<sup>1</sup> Smokers of Japanese descent living in the US have the same incidence of lung cancer as do the rest of Americans. These findings point to the importance of the differences in the diets followed in Japan and the US. The starch-based (rice and vegetable) diet followed by most Japanese smokers allows the body to defend and repair the damages from smoked tobacco far more effectively than does a diet of fat and protein (meat and dairy products); the American diet.

Many large population studies have shown that people who eat healthier diets, meaning more vegetables and fewer animal foods, have less lung disease.<sup>2-6</sup> One study of 52,325 participants found that individuals whose diets are rich in meat reported new onset of persistent coughs with phlegm 43 percent more often than those who consume a diet high in fruit.<sup>2</sup>

# **How Diet Effects Lung Function**

There are several important ways a healthier diet will help people, with and without COPD, breathe better. Fortunately, all of these mechanisms are tied together and answered by a low-fat starch-based diet, the



# May 2010 The McDougall Newsletter

www.drmcdougall.com Page 10

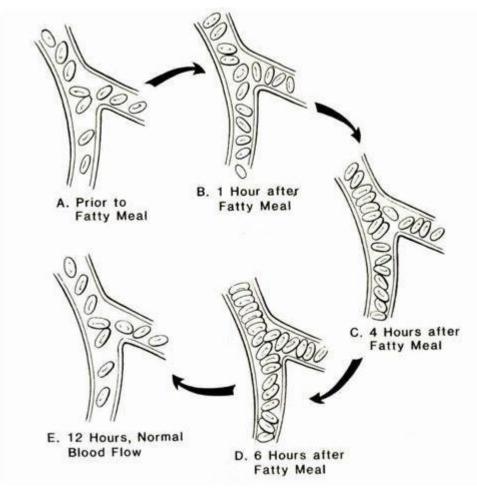
McDougall diet, and some moderate exercise.

# People Are Too Fat to Breathe

Obese women have a 50 percent higher rate of asthma compared to non-obese women.<sup>7</sup> The reduction in lung function is largely due to the body fat that builds up inside the abdomen and pushes up against the main breathing muscle, the diaphragm, and thereby restricting the capacity of the lungs to expand. Lung function improves following weight loss in obese people.<sup>7</sup> The best way to lose weight permanently is with the starch-based McDougall diet. Exercise also encourages weight loss. The benefits to lung function are from the lost weight, not the aerobic exercise.<sup>8</sup>

# Acid Reflux Burns the Lungs

Complications from acid reflux, also known as gastrointestinal reflux disease (GERD), include asthma and COPD. When the acid from the stomach refluxes up into the mouth and is inhaled into the lungs, serious inflammation results. Inhaled into the bronchial (airway) tubes the acid burns the tissues, producing constriction, swelling, and mucus. Somewhere between 34 percent and 89 percent of asthmatics have GERD.<sup>9</sup> Seventy-five percent of children with asthma have GERD.<sup>8</sup> Patients with asthma caused by GERD commonly complain of heartburn, regurgitation, and difficulty swallowing. (But not always. Many people have important



reflux with no symptoms.) Their asthma is worsened by meals and when lying down, or sleeping. Treatment with a healthy diet that reduces the chances of reflux, raising the head of the bed by four to six inches helps too, and as a last resort, antacids, will relieve asthma and many other breathing problems, and reduce the need for asthma medications.<sup>10</sup>

# Pulmonary Circulation Is Impaired By Fats and Oils

Blood cells within the blood vessels flow freely and bounce off one another prior to a high-fat meal. Approximately one hour after a fatty meal, the cells begin to stick together upon contact and form clumps. As this clump formation

The McDougall Newsletter www.drmcdougall.com Page 11

progresses, the flow of blood slows. Six hours after the meal, the clumping becomes so severe that the blood flow actually stops in many small vessels. Several hours later the clumps break up and the blood flow returns to the tissues. As a result of these changes, the oxygen content of the blood decreases by 20 percent.<sup>11</sup> The consequence of this impaired circulation can be angina, impaired brain function, high blood pressure, fatigue, as well as compromise of the function of the lungs.<sup>12</sup>

Please note that the circulation is as severely impaired by vegetable oils as it is with animal fats. <sup>13,14</sup> Again the right approach to help the lungs function is to follow the low-fat McDougall diet.

# Inflammation of Airways Caused By Diet

Although highly controversial, there has been much written about foods causing allergic reactions that lead to spasms of the airways, mucus production, and difficulty breathing. Over sixty years ago research suggested that a variety of foods could contribute to asthma and found that in asthma patients symptoms often improved with an exclusion diet.15

Just this month (May 2010) it was reported at the American Thoracic Society meeting in New Orleans that individuals with asthma who consumed a high-fat meal showed increased airway inflammation just hours after their binge. The high-fat meal also appeared to inhibit the response to their asthma medication, such as Ventolin (albuterol).<sup>16</sup>

# Steps To Take for Better Breathing

Cleaning up the air around you by quitting smoking and using air purifiers is an obvious first step.

Next, switch to a diet based on starches with the addition of fruits and vegetables. This will immediately reduce gastrointestinal reflux and start you on a course of losing excess weight. There are some modifications to the basic diet that will additionally help to quiet the stomach. Cooked vegetables are much better tolerated than raw. Onions, green peppers, radishes, and cucumbers are notorious for causing indigestion, but when cooked many people no longer notice upset. Fruits juices (grapefruit, orange, etc.) frequently cause indigestion and contribute to reflux. The whole fruit is rarely troublesome. Many people need to avoid hot spices.

Raising the head of the bed by four to six inches with blocks (like a 4X4 or a brick) is an often overlooked, but highly effective, method of utilizing gravity to keep acid out of the throat and lungs, and in the stomach where it belongs. The final step to take to reduce acid reflux (GERD) is potent acid-suppressing agents called proton pump inhibitors, but these do have significant costs and side effects.

I believe dairy proteins are the most likely offenders when it comes to the allergic component of asthma, and egg proteins may be second. However, some plant foods may be troublesome too. People often talk about wheat and other grains, maybe corn, as mucous-forming. Keep a diary and try to notice foods that trouble you. The best, but most difficult, way to find offending foods is to follow the elimination diet. This diet is based on rice and sweet potatoes as the primary starches with the addition of non-citrus fruits and green and

#### The McDougall Newsletter www.drmcdougall.com May 2010

Page 12

yellow vegetables. Everything is cooked thoroughly. Water is the beverage. Because of the extra restrictions, this is a very effective weight loss diet too. (People not wanting to lose weight will find suggestions on increasing calorie intake in my July 2003 newsletter).

If you are having problems breathing do not overlook the cost-free, side effect-free approach of a starchbased diet.

# **References:**

1) Stellman SD, Takezaki T, Wang L, Chen Y, Citron ML, Djordjevic MV, Harlap S, Muscat JE, Neugut AI, Wynder EL, Ogawa H, Tajima K, Aoki K. Smoking and lung cancer risk in American and Japanese men: an international case-control study. Cancer Epidemiol Biomarkers Prev. 2001 Nov;10(11):1193-9.

2) Butler LM, Koh WP, Lee HP, Tseng M, Yu MC, London SJ; Singapore Chinese Health Study. Prospective study of dietary patterns and persistent cough with phlegm among Chinese Singaporeans. Am J Respir Crit Care Med. 2006 Feb 1;173(3):264-70.

3) Walda IC, Tabak C, Smit HA, R‰s‰nen L, Fidanza F, Menotti A, Nissinen A, Feskens EJ, Kromhout D. Diet and 20-year chronic obstructive pulmonary disease mortality in middle-aged men from three European countries. Eur J Clin Nutr. 2002 Jul;56(7):638-43.

4) Jiang R, Paik DC, Hankinson JL, Barr RG. Cured meat consumption, lung function, and chronic obstructive pulmonary disease among United States adults. Am J Respir Crit Care Med. 2007 Apr 15;175(8):798-804.

5) Varraso R, Jiang R, Barr RG, Willett WC, Camargo CA Jr. Prospective study of cured meats consumption and risk of chronic obstructive pulmonary disease in men. Am J Epidemiol. 2007 Dec 15;166(12):1438-45.

6) Varraso R, Willett WC, Camargo CA Jr. Prospective study of dietary fiber and risk of chronic obstructive pulmonary disease among US women and men. Am J Epidemiol. 2010 Apr 1;171(7):776-84.

7) Aaron SD, Fergusson D, Dent R, Chen Y, Vandemheen KL, Dales RE. Effect of weight reduction on respiratory function and airway reactivity in obese women. Chest. 2004 Jun;125(6):2046-52.

8) Womack CJ, Harris DL, Katzel LI, Hagberg JM, Bleecker ER, Goldberg AP. Weight loss, not aerobic exercise, improves pulmonary function in older obese men. J Gerontol A Biol Sci Med Sci. 2000 Aug;55(8):M453-7.

9) Simpson W. Gastroesophageal reflux disease and asthma. Diagnosis and management. Arch Intrn Med 155: 798-803, 1995.

10) Hogan W. Medical treatment of supraesophageal complications of gastroesophageal reflux disease. Am J Med. 2001 Dec 3;111 Suppl 8A:197S-201S.

#### May 2010 The McDougall Newsletter www.drmcdougall.com

Page 13

11) Kuo P, Whereat AF, Horwitz O. The effect of lipemia upon coronary and peripheral arterial circulation in patients with essential hyperlipemia. Am J Med. 1959 Jan;26(1):68-75.

12) D. Hazlett. Dietary Fats Appear to Reduce Lung Function. JAMA. 1973; 223(1):15.

13) Friedman M, Rosenman RH, Byers SO. Serum lipids and conjunctival circulation after fat ingestion in men exhibiting type-A behavior patterns. Circulation. 1964 Jun; 29:874-86.

14) Friedman M, Byers SO, Rosenman RH. Effect of unsaturated fats upon lipemia and conjunctival circulation. A study of coronary-prone (pattern A) men. JAMA. 1965 Sep 13;193:882-6.

15) Bartley J, McGlashan SR. Does milk increase mucus production? Med Hypotheses. 2010 Apr;74(4):732-4

16) http://www.eurekalert.org/pub\_releases/2010-05/ats-hma051010.php



# Featured Recipes

# **BBQ Pulled Jackfruit**

This is a very unique recipe inspired by a restaurant meal enjoyed by my sister and brother-in-law in Grand Rapids, Michigan. They ordered a Barbecued Pulled Jackfruit sandwich just because it looked interesting, and enjoyed it so much that they went home and immediately looked for recipes online so they could enjoy it at home. There are actually quite a few recipes for barbecued jackfruit online and even more for other savory jackfruit

dishes. This is my sister, Carol's, and my version of Barbecued Pulled Jackfruit.

What is jackfruit? Jackfruit is a large, starchy, fibrous fruit that is sweet when it is ripe and is eaten as a dessert. When it is unripe it is used in savory dishes as a vegetable. It reminds me a lot of the giant fresh breadfruit that was available all over Hawaii when we lived there. You can find it in cans in most Asian markets. For this recipe, be sure to buy the kind packed in water or brine, not the sweetened variety. This recipe should be made in a crockpot because it needs a long time to simmer in order for the jackfruit to take on the barbecued flavor.

Preparation Time: 10 minutes Cooking Time: 8 hours Servings: 8

1 20 ounce can young green jackfruit in brine or water 1 onion, chopped 1-2 garlic cloves, crushed 1 cup barbecue sauce (approximately) 1/4 cup water

Drain the jackfruit and rinse several times with water. Let rest in the strainer to remove as much water as possible while sautéing the onion and garlic.

Sauté the onion and garlic in a non-stick pan until softened slightly, about 5 minutes.

#### May 2010 The McDougall Newsletter www.drmcdougall.com

## Page 14

Place the jackfruit in the bottom of a crockpot, (it won't look like there is much of it, but as it breaks apart there will be plenty for 8 servings), spoon the onions and garlic over the top and add  $\frac{1}{2}$  cup of barbecue sauce and the water. Stir gently to mix well, cover and cook on high heat in the crockpot for about 3 hours before stirring. After 3 hours stir gently and add about 1/4 cup more barbecue sauce. Cook for an additional hour on high.

Uncover and stir, breaking up the jackfruit as much as possible into strands. Reduce heat to low. Cover and continue to cook for another 3-4 hours, stirring and breaking up the jackfruit until it is all broken into strands. Add the remaining barbecue sauce occasionally, as necessary. The jackfruit will become softer and easier to break apart the longer it cooks. It should be very thick and stringy at the end of the cooking time. Serve on buns, topped with coleslaw (recipes follow), sautéed onions (recipe follows) and Sriracha hot sauce.

Hints: This is a fantastic barbecued sandwich just bursting with flavor. Choose any of your favorite fat-free barbecue sauces in this recipe, the flavor will be slightly different depending on which sauce you choose. The secret is in the long cooking time which gives the sauce plenty of time to meld into the jackfruit. This is a much healthier choice for a barbecued filling than either soy or gluten, with much more flavor.

Note: While I was shopping for the jackfruit I had an opportunity to browse in the large Asian market in Santa Rosa, CA where we live. (By the way, it was much easier to find sweetened jackfruit than the unripe green variety. But, obviously, I found it and it was well worth the effort.) I felt like I had stepped back in time 25 years or so because many of the products that I saw were readily available in all of the markets in Hawaii when we were living there in the 70's and 80's. I plan to spend more time shopping there in the near future and revisiting some of our old favorite recipes along the way. I found a familiar bag of peeled mung beans on this visit and the night after our barbecued jackfruit on buns, we enjoyed an old favorite meal of Mung Bean Dal. The recipe is in the March 2008 newsletter: this time I used the Sweet Curry Powder from Penzeys Spices in the dal mixture, and topped it with Sautéed Golden Onions and Sriracha.

The left over Mung Bean Dal makes a delicious filling for "Dillas"-any version of something similar to guesadillas without the cheese. My version of Yamadillas is in the June 2009 newsletter. For Mung Bean Dillas proceed as below:

Heat a non-stick griddle or large sauté pan over medium heat. Take one tortilla and spread some of the dal mixture on a corn or flour tortilla, smoothing it out almost to the edges. Place another tortilla on top of that one and flatten. Place on the griddle and cook for about 2  $\frac{1}{2}$  minutes on each side, flipping several times to make sure it doesn't burn. Cut into wedges and serve on a plate with salsa and/or other toppings to dip it in.

### **Creamy-style Coleslaw**

### By Carol Van Elderen

This is a creamy mayonnaise-style coleslaw. Make this with fat-free Nayonnaise seasoned with a bit of Dijon mustard, or try it with one of the Tofu Mayonnaise recipes in this newsletter. (See March 2005, August 2007, or December 2007 for some ideas.)

Preparation Time: 10 minutes Resting Time: 30 minutes Servings: 6

5 cups shredded green cabbage 1/8 cup minced green onion 1 cup tofu mayonnaise 1 <sup>1</sup>/<sub>2</sub> tablespoons sugar 1 <sup>1</sup>/<sub>2</sub> tablespoons white vinegar <sup>3</sup>⁄<sub>4</sub> tablespoon celery seed Dash sea salt to taste

Combine the cabbage and green onion in a large bowl. Mix the remaining ingredients together in a small bowl

www.drmcdougall.com Page 15

and pour over the cabbage. Toss gently to mix. Refrigerate for 30 minutes before serving.

Hint: Fat-free Nayonnaise is made by Nasoya. It is a tofu based product that does not contain any added oil. Most vegan mayonnaises that are sold in many markets are very high fat products because of the oil in them. I like to jazz up my Nayonnaise a bit by stirring in some Dijon-style mustard for extra flavor.

## **Dilled Coleslaw**

I usually have a batch of Creamy Dill Tofu Dip in my refrigerator (see the September 2005 newsletter) because my grandsons love it with broccoli and Brussels sprouts. So this coleslaw is really quick to put together and it is delicious on top of the BBQ Pulled Jackfruit.

Preparation Time: 5 minutes Chilling Time: 30 minutes Servings: 6

4 cups shredded green cabbage 1/2 to 3/4 cup Creamy Dill Tofu Dip

Place the cabbage in a large bowl and pour the tofu dip over the top. Toss well to mix. Cover and refrigerate for 30 minutes.

Hints: Buy shredded cabbage in bags to save even more time. For my Creamy Dill Tofu Dip, I use 1 package Creamy Dill Dip by Simply Organics mixed into 3 cups Tofu Sour Cream.

### **Tofu Sour Cream**

- 2 12.3 ounce packages silken tofu
- 4 tablespoons lemon juice
- 3 teaspoons sugar
- 1 teaspoon salt

Combine all ingredients in a food processor and process until very smooth and creamy. Refrigerate at least 2 hours to allow flavors to meld, one day is even better.

## **Quick Coleslaw**

1 bag shredded cabbage 1 cup oil-free dressing

Combine in a bowl and serve at once, or cover and refrigerate 30 minutes before serving.

## **Golden Sautéed Onions**

We like these on top of burgers, Dal, sandwiches, BBQ Jackfruit and many other foods. These take some time to cook, so don't be impatient. Store them in a covered container in the refrigerator.

Preparation Time: 5 minutes Cooking Time: 30 minutes Servings: variable

4 onions, chopped

1 cup water

Place the onions in a large non-stick sauté pan. Do not add any of the water yet. Cook the onions over medium heat, stirring frequently, for about 10 minutes. After 10 minutes the onions will start to stick slightly and begin to take on a golden hue. Add 1/8 cup of the water and continue to stir frequently. The onions will get more golden in color and begin to stick again. Add another 1/8 cup of the water, stirring frequently. Repeat this process every 2-3 minutes and the onions will become very soft and golden brown. Turn off the heat for the final 2 minutes but continue to stir to release the browned bits from the sauté pan. Serve warm or cold.

Hint: These will keep for about a week in the refrigerator.

## **Inside-Out Lasagna**

This is an easy lasagna-type meal with none of the fuss and all of the flavor! It can easily be prepared ahead of time and refrigerated until ready to bake.

Preparation Time: 15 minutes Cooking Time: 30 minutes Servings: 6

8 ounces uncooked brown rice pasta (see hints below) 1 onion, chopped 2 cloves garlic, crushed 1 <sup>1</sup>/<sub>2</sub> cups coarsely chopped fresh mushrooms 1 14.5 ounce can chopped tomatoes 1 14.5 ounce can cannellini beans, drained and rinsed 1 <sup>1</sup>/<sub>2</sub> cups fat-free pasta sauce

1 10 ounce bag frozen chopped spinach, thawed and squeezed dry

Several dollops tofu ricotta (optional) (recipe below)

Preheat oven to 350 degrees.

Place a large pot of water on to boil and cook pasta according to package directions, just until barely tender. Drain and set aside.

Meanwhile, dry sauté the onions, garlic and mushrooms in a large skillet until softened and slightly browned, about 5 minutes, stirring frequently. Add the tomatoes, beans, pasta sauce and spinach. Mix well and heat through, about 5 minutes. Add the cooked pasta and mix well. Stir in several dollops of tofu ricotta, if desired. (See hints below.) Ladle into a large covered casserole dish. Bake covered for 30 minutes.

Hints: I use Tinkyada brand brown rice pasta in this recipe, either the penne or spirals, but I'm sure other varieties would also work well. Try one of the many whole grain pastas available in most supermarkets if you can't find brown rice pasta. The tofu ricotta is entirely optional, the casserole is delicious either way. I only use it if I happen to have some already made in my refrigerator. It may be stirred in before baking, or left in small dollops on the top of the casserole. To add a bit of heat to this dish, stir in 1/4 to 1/2 teaspoon crushed red pepper flakes when adding the pasta sauce.

# Tofu Ricotta

Preparation Time: 10 minutes

Use this instead of soy cheese as a topping for pizza, or in any other recipe that calls for processed soy cheese.

1 12.3 ounce package silken tofu
 1 pound fresh water-packed tofu
 1⁄4 cup nutritional yeast
 1⁄4 cup lemon juice
 1⁄4 cup soy milk
 1 teaspoon basil
 1 teaspoon oregano
 1⁄2 teaspoon garlic powder
 1⁄4 teaspoon salt

Several twists freshly ground black pepper

Combine all ingredients in a food processor and process until smooth, or mash with a bean masher for a coarser texture.

Hints: Leave out the basil, oregano and garlic for a plain ricotta substitute.

## Beans & Greens Salad

Since summer is almost upon us, I always like to remind you that an easy meal in the summer can be a simple salad of greens tossed with a variety of beans and vegetables. This salad can be eaten in a bowl or wrapped up in a corn or flour tortilla for a delicious summer-time wrap meal.

Preparation Time: 10 minutes Servings: 4

2 15 ounce cans cannellini beans, drained and rinsed
2 roasted red peppers, chopped (see hint below)
1 cucumber, sliced (see hint below)
1/3 cup oil-free salad dressing
2 tablespoons slivered fresh basil
8 cups mixed salad greens
Freshly ground black pepper to taste

Combine the beans with the peppers, cucumber, dressing and basil. Place the greens in a large bowl and add the vegetable mixture. Toss well to mix. Season with freshly ground black pepper. Serve at once.

Hints: If you are using bottled roasted peppers, blot with a paper towel before chopping. If fresh tomatoes are in season, substitute 2 fresh, ripe tomatoes for the roasted red peppers. Or add the tomatoes along with the roasted peppers. The cucumber may be seeded before using in this recipe, if desired. Doing so will make the salad a bit less "watery". When fresh zucchini are in season, use a small fresh zucchini in place of the cucumber. This salad can be different each time you make it by using different beans, dressings and vegetables, but it is always a fast, delicious summer meal!

## Spinach, Fennel and Mango Salad

By Cathy Fisher

Preparation Time: 15 minutes Makes 4 servings

This salad is very easy to make, with refreshing and unique flavors; a great alternative to your everyday salad. The oil-free dressing is light and tangy.

1 bunch spinach

½ bunch arugula
1 mango, peeled and diced
1 fennel bulb, grated
1 cucumber, peeled and diced
1 avocado, diced
2 scallions, chopped
2 tablespoons fresh basil, chopped
1 tablespoon rice vinegar
1 lime, juice from

Thoroughly wash the spinach and arugula, pat or spin dry, and place in a bowl or on a platter. Combine the mango, fennel, cucumber, avocado, scallions, basil, rice vinegar and lime juice. Toss this mixture gently with the spinach and arugula and serve, or place mixture on top of the greens on a platter.

Notes: Baby spinach is very tasty in this dish; it can be bought in bulk in the

produce section. Arugula is also often found in bulk in the produce section. You can also substitute with romaine or any other kind of lettuce. If you don't have both, you can use either fennel OR basil since both have distinctive flavors.

Recipe by Cathy Fisher ©2010

