

Get Into **betterHEALTH!** with Dr. Derek Lee

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Here are a few interesting tidbits on what to eat to make you quite a bit healthier and happier! Enjoy!

Dr. Derek Lee

● **Weight Loss on a Low Glycemic Diet**

What is the best diet for weight loss? Research continues to investigate this question. This study compared a traditional low-fat low-calorie diet versus a low glycemic diet. Calorie intake on both diets was set at 60% of calorie needs, about 1500 cal/day, and was designed to result in a 10% loss of body weight in 10 weeks. Here are comparisons of the two diets:

Nutrients	Low-fat, low-cal diet	Low Glycemic Diet
Calories/day	1500	1500
Carbohydrate (% cal)	49	43
Protein (% cal)	17	27
Fat (% cal)	18	30
Dietary fiber	20	32
Glycemic index	82	50
Glycemic load	205	82

Both diets showed a similar weight loss over a 10 week period, about 9.5 kg or 10.5% of participant's body weight. The low glycemic diet, however, had several health advantages when compared to the low-fat diet:

- Participants on the low glycemic diet reported less hunger on the diet
- Insulin resistance dropped twice as much on the low glycemic diet
- Blood fat levels (triglycerides) dropped the most on the low glycemic diet
- Inflammation as measured by C-reactive protein (CRP), declined by nearly 50% on the low glycemic diet but remained essentially unchanged on the low fat diet.
- Blood pressure declined the most on the low glycemic diet.
- At the end of 10 weeks, resting energy expenditure (REE) decreased by 10.6% on the low-fat diet but only 5.9% on the low glycemic diet. This is an adaptation the body makes when losing weight that tends to make the person gain back weight lost over time. The REE (calories burned at resting conditions) was 86 calories per day higher after weight loss. This doesn't seem like much but is equivalent to a weight gain of over 8 pounds in a year.

While both diets resulted in similar weight loss, confirming that calories are what counts in weight loss, the low glycemic diet appears to have several health advantages, less hunger during dieting, and a higher energy needs at the end of dieting to help keep weight off.

For best results in dieting, this study suggests the following principles:

- Reduce overall calorie intake (eat less, watch portion sizes, avoid seconds, choose lower calorie foods, etc.)
- Choose healthy carbohydrates (unrefined, whole grains such as steel cut oats, brown rice, stone ground whole wheat bread, whole grain pasta, legumes, soy foods and soy milk with no added sugar, fresh fruits, and nonstarchy vegetables).
- Avoid or limit high glycemic carbohydrates (white bread, white rice, sugar sweetened beverages, pastry, sweets, chips, potatoes, and refined breakfast cereals).
- Eat a little less carbohydrate and a little more healthy protein foods.
- Eat healthy fats, up to 30% of calories (olive, Canola, soy oil, trans fat free margarines, nuts, soy foods, salad dressings (made from vegetable oils), avocado, olives, nut butters etc.).
- Eat high fiber foods. Aim for 32-35+ grams daily.

In addition, be sure to add daily physical activity. Those who are most successful in losing and maintaining weight loss get about an hour a day of regular physical activity such as brisk walking. If you can't get an hour, aim for at least 30 minutes daily.

Reference: Pereira MA et al. Low-glycemic Load Diet and Resting Energy Expenditure, *Journal of the American Medical Association* 282:2482-2490, Nov. 24, 2004

● Prevalence of High Blood Pressure

Recent guidelines issued by the NIH state that a healthy blood pressure is less than 120/80 and blood pressures of 120/80 to 139/89 are termed prehypertension. These new cut points have increased the number of people who are now recognized as being at risk due to elevated blood pressure. It is now estimated that 60% of all adults (persons over the age of 18) have either prehypertension or hypertension, 31% and 29% respectively. Only 39% of the population is in the healthy blood pressure range. This makes high blood pressure the most common, serious health condition in the U.S.

Persons with prehypertension are more likely to be overweight and to develop diabetes, heart disease, and stroke than persons with a healthy blood pressure level. Blood pressure screening and lifestyle interventions to lower blood pressure are an urgent and necessary preventive approach to help stem this serious health condition.

Reference: Greenlund KJ, et al. Prevalence of Heart Disease and Stroke Risk Factors in Persons with Prehypertension in the US, *Archives of Internal Medicine* 164:2113-18, 2004.

● Whole Grains and Coronary Heart Disease

Research continues to accumulate on the protective effect of whole grains, especially for preventing coronary heart disease (CHD). This latest study included 42,850 healthy men whose diets were studied for 14 years to see who developed coronary heart disease. Men who ate the most whole grains (top 20%, 50 grams/day) had an 18% decreased risk of CHD even after adjusting for other dietary and CHD risk factors. For every 20 grams of whole grains eaten, there was a 6% reduction in CHD.

Men with the highest intake of bran (11 g/day) had a 30% decrease in CHD. Bran was even more strongly related to decreased risk than whole grains.

This means that 1 out of every 3 to 5 heart attacks may have been prevented by eating primarily whole grains and foods high in bran. The foods eaten that contributed most of the whole grains were whole grain ready-to-eat breakfast cereals, brown rice, whole wheat bread, and cooked oats.

The bottom line for a healthier heart -- choose primarily whole grain breads and cereals. When choosing breads look for the words, "100% whole wheat" to get the best choices. By law, "whole wheat bread" only has to be 51% whole wheat (the rest can be white flour) unless it says 100%. When buying breakfast cereals look for the number of grams of fiber per serving. **Choose cereals that have at least 5 grams of fiber per serving.** Bran cereals may have 7-10+ grams per serving. Other good sources of whole grains include oatmeal, barley, brown rice, rye breads and whole rye crackers, bran muffins, oatmeal bread (**buy breads with at least 2-3 grams of fiber per slice**), and low sugar granola (read labels).

Aim for at least 3-5 servings of whole grains daily and 11-15+ grams of fiber from whole grain foods daily (25-38 grams of dietary fiber per day is recommended from all foods eaten). The authors conclude their article by stating, "whole grains should be considered an important modifiable risk factor for coronary heart disease."

Jensen MK, et al. "Whole Grains, Bran, and Germ and Risk of CHD", American Journal of Clinical Nutrition 80:1492-9, Dec. 2004

● Foods that Lower Homocysteine

Elevated homocysteine levels are linked to higher risks of coronary heart disease and decreased brain function including dementia and depression. A 10% increase in blood homocysteine levels increases the risk of heart disease by 10-15%. A recent study of nearly 6000 people found that those who ate the following foods had lower homocysteine levels:

- Milk -- homocysteine levels were 15% lower in people who drank milk regularly vs those not drinking milk (milk is high in riboflavin which is needed to metabolize homocysteine)
- Yogurt
- Ready-to-eat breakfast cereals (they are fortified with folic acid)
- Peppers (red, yellow, green, and hot peppers)
- Cruciferous vegetables (cabbage, broccoli, cauliflower) homocysteine levels were 16.5% lower in those eating cruciferous vegetables often vs those never eating them

Ganji V, et al. Dietary Determinates of Homocysteine, American Jour of Clin Nutr 80:1500-7, Dec. 2004

● Barley Lowers Cholesterol Levels

Barley is very high in soluble fiber but is not often eaten in the American diet. A new study shows that barley is very effective in lowering cholesterol. Test subjects were fed standard diets plus barley at a low, moderate, or high level. They added barley flakes, barley flour, or pearled barley to common foods such as pancakes, granola, cookies, hot cereal, steamed grain, tabbouleh, and muffins. Those eating the moderate or high barley diet had a significant drop in total cholesterol

(9-10%) and a 14-17% drop in LDL cholesterol. Need help in lowering your cholesterol? Try incorporating more barley in your diet. Look for barley flour, flakes, and pearled barley to add to your foods. Barley also has the lowest glycemic index of any grain (coarse barley bread has a glycemic index of 39 compared to wheat bread at 99). For best results in lowering cholesterol, aim to eat at least 6g of beta-glucan (the soluble fiber found in barley) daily.

Behall KM et al. Blood Lipids and Barley Beta-Glucan, Amer J Clin Nutr 80:1185-93, Nov. 2004

● Leafy Greens are Protective to the Heart

A study on diet and heart disease in India highlights how vegetables are protective to the heart; especially dark, leafy greens. Cardiovascular disease (CVD) is on the rise in India. In 2004 they expect 3 million deaths from CVD, 1 out of every 4 deaths. They are looking for inexpensive ways to attack this problem and prevention is always the least expensive and best approach. Here are inexpensive but effective strategies they found in this study:

- Persons eating 3-4 serving of vegetables per day were only 1/3 as likely to have a heart attack compared to people eating 1 serving of vegetables per day (relative risk = 0.33). Among vegetables, leafy greens were most closely linked to a low risk for a heart attack. An intake of 3 or more servings of leafy greens per week was linked with a threefold lower risk of a heart attack than those eating leafy greens less than once per week.
- They also observed an inverse association between heart attacks and whole grains, especially their wheat flat bread. A high intake of whole grains reduced their risk by 62%.
- Persons using mustard oil (a common oil in India that is similar to Canola oil here and is high in alpha-linolenic or omega-3 fatty acids) cut their risk of a heart attack in half (relative risk 0.44) compared to other common fats used, especially a hydrogenated fat high in trans fats.

Their final recommendations for India (and anyone wanting an inexpensive way to combat heart disease) is a public health program to focus on lifestyle habits including:

- Smoking cessation
- Improvements in physical activity
- Simple dietary modifications including eating more vegetables (at least 3-4 servings daily), especially leafy greens (at least 3-4 servings/week), eating whole grain breads, and choosing unhydrogenated fats for cooking (vegetable oils high in alpha-linolenic acid such as mustard or Canola oil).

Rastogi T et al. "Diet and Ischemic Heart Disease in India", Amer J Clin Nutr 2004; 79:582-92

● Office Hours. (Effective January 1, 2005)

betterHEALTH Clinic

Monday, Wednesday 9:15 - 12:00/2:30 - 7:00
Friday 9:15 - 10:30/4:00 - 6:00
Saturday 9:00 - 12:00 (every other Saturday
as of January 8, 2005)

Corporate Clinics

Monday Shepherd Village Long-Term Care Facility
Tuesday Kraft Canada, (Moatfield & Parklawn facilities)
Thursday Rogers Cable York Mills
Friday Rogers Cable Richmond Hill