



DIABETES PREVENTION

By Jacqueline Fields MD and found of *Dr. Fields' Sacred Skin* | Feb 2014

Diabetes and its precursor, insulin resistance, are looming as the major threat to our health in the 21st century. It will affect 1 in 3 children born today, and 1 in 2 minority children. This is a tragic consequence of our toxic food environment, our unmitigated exposure to stress, our sedentary lifestyle, and environmental toxins. However, these problems are completely preventable and often reversible through aggressive lifestyle changes, supplements, and exercise and stress management.

Diabetes is the biggest health epidemic triggered by the obesity epidemic, but all of our medical efforts to treat it are focused on medications and insulin. It is simply the wrong approach. If you follow these guidelines instead, you will see a dramatic change very quickly in your health, your weight, and your diabetes.

Dietary Recommendations to Reverse Diabetes

Eating in a way that balances your blood sugar, reduces inflammation and oxidative stress, and improves your liver detoxification is the key to preventing and reversing insulin resistance and diabetes. This is a way of eating that based on a whole foods diet that's high in fiber, rich in colorful fruits and vegetables, and low in sugars and flours, with a low glycemic load. It is a way of eating that includes anti-inflammatory, antioxidant, and detoxifying foods. It includes plenty of omega-3 fats and olive oil, soy products, beans, nuts, and seeds. All these foods help prevent and reverse diabetes and insulin resistance. This is the way of eating that turns on all the right gene messages, promotes a healthy metabolism, and prevents aging and age-related diseases like diabetes and heart disease.

Here are more specifics.

Meal Timing

- Eat protein for breakfast every day, such as whole omega-3 eggs, a protein shake, or nut butters.
- Eat something every 4 hours to keep your insulin and glucose levels normal.
- Eat small protein snacks in the morning and afternoon, such as a handful of almonds.
- Finish eating at least 2 to 3 hours before bed. If you have a snack earlier in the day, you won't be as hungry, even if you eat a little later.

Meal Composition

- Controlling the glycemic load of your meals is very important.
- You can do this by combining adequate protein, fats, and whole-food carbohydrates from vegetables, legumes, nuts, seeds, and fruit at every meal or snack.
- It is most important to avoid eating quickly absorbed carbohydrates alone, as they raise your sugar and insulin levels.

Travel Suggestions

Two handfuls of almonds in a zip-lock bag make a useful emergency snack.

You can eat them with a piece of fruit. Remember, real food is the best.

What to Eat

- Choose from a variety of the following real, whole foods:
- Choose organic produce and animal products whenever possible.
- Eat high-quality protein, such as fish — especially fatty, cold-water fish like salmon, sable, small halibut, herring, and sardines — and shellfish.
- Cold-water fish such as salmon, halibut, and sable contain an abundance of beneficial essential fatty acids, omega-3 oils that reduce inflammation. Choose smaller wild Alaskan salmon, sable, and halibut that are low in toxins. Canned wild salmon is a great “emergency” food.
- Eat up to eight omega-3 eggs a week.
- Create meals that are high in low-glycemic legumes such as lentils, chickpeas, and soybeans (try edamame, the Japanese soybeans in a pod, quickly steamed with a little salt, as a snack). These foods slow the release of sugars into the bloodstream, which helps prevent the excess insulin release that can lead to health concerns like obesity, high blood pressure, and heart problems.
- Eat a cornucopia of fresh fruits and vegetables teeming with phytonutrients like carotenoids, flavonoids, and polyphenols, which are associated with a lower incidence of nearly all health problems, including obesity and age-related disease.
- Eat more low-glycemic vegetables, such as asparagus, broccoli, kale, spinach, cabbage, and Brussels sprouts.
- Berries, cherries, peaches, plums, rhubarb, pears, and apples are optimal fruits. Cantaloupes and other melons, grapes, and kiwifruit are suitable; however, they contain more sugar. You can use organic frozen berries (such as those from Cascadian Farms) in your protein shakes.
- Focus on anti-inflammatory foods, including wild fish and other sources of omega-3 fats, red and purple berries (these are rich in polyphenols), dark green leafy vegetables, orange sweet potatoes, and nuts.

- Eat more antioxidant-rich foods, including orange and yellow vegetables, dark green leafy vegetables (kale, collards, spinach, etc.), anthocyanidins (berries, beets, grapes, pomegranate), purple grapes, blueberries, bilberries, cranberries, and cherries. In fact, antioxidants are in all colorful fruits and vegetables.
- Include detoxifying foods in your diet, such as cruciferous vegetables (broccoli, kale, collards, Brussels sprouts, cauliflower, bok choy, Chinese cabbage, and Chinese broccoli), green tea, watercress, dandelion greens, cilantro, artichokes, garlic, citrus peels, pomegranate, and even cocoa.
- Season your food with herbs such as rosemary, ginger, and turmeric, which are powerful antioxidants, anti-inflammatories, and detoxifiers.
- Avoid excessive quantities of meat. Eat lean organic or grass-fed animal products, when possible. These include eggs, beef, chicken, pork, lamb, buffalo, and ostrich. There are good brands at Whole Foods and other local health-food stores (also see mail order sources).
- Garlic and onions contain antioxidants, enhance detoxification, act as anti-inflammatories, and help lower cholesterol and blood pressure.
- A diet high in fiber further helps to stabilize blood sugar by slowing the absorption of carbohydrates and supports a healthy lower bowel and digestive tract. Try to gradually increase fiber to 30 to 50 grams a day and use predominantly soluble or viscous fiber (legumes, nuts, seeds, whole grains, vegetables, and fruit), which slows sugar absorption from the gut.
- Use extra virgin olive oil, which contains anti-inflammatories and anti-oxidants, as your main cooking oil.
- Increase your intake of nuts and seeds, including raw walnuts, almonds, macadamia nuts, and pumpkin and flax seeds.
- And yes ... chocolate can be healthy, too. Choose only the darkest varieties and eat only 2 to 3 ounces a day. It should contain 70 percent cocoa.

Decrease (or ideally eliminate) your intake of:

- All processed or junk foods
- Foods containing refined white flour and sugar, such as breads, cereals (cornflakes, Frosted Flakes, puffed wheat, and sweetened granola), flour-based pastas, bagels, and pastries
- All foods containing high-fructose corn syrup
- All artificial sweeteners (aspartame, Sorbitol, etc.) and caffeine
- Starchy, high-glycemic cooked vegetables, such as potatoes, corn, and root vegetables such as rutabagas, parsnips, and turnips
- Processed fruit juices, which are often loaded with sugars (Try juicing your own carrots, celery, and beets, or other fruit and vegetable combinations, instead)

- Processed canned vegetables (usually very high in sodium)
- Foods containing hydrogenated or partially hydrogenated oils (which become trans fatty acids in the bloodstream), such as most crackers, chips, cakes, candies, cookies, doughnuts, and processed cheese.
- Processed oils such as corn, safflower, sunflower, peanut, and canola.
- Red meats (unless organic or grass-fed) and organ meats.
- Large predatory fish and river fish, which contain mercury and other contaminants in unacceptable amounts, including swordfish, tuna, tilefish and shark
- Dairy — substitute unsweetened, coconut milk, almond milk, or hazelnut milk products.
- Alcohol — limit it to no more than 3 glasses a week of red wine per week.

Balance Blood Sugar with Exercise

Exercise is critical for the improvement of insulin sensitivity. It helps reduce central body fat, improving sugar metabolism. Regular exercise will help prevent diabetes, reduce your risk of complications, and even help reverse it.

Ideally you should do 30 minutes of walking every day. Walking after dinner is a powerful way to reduce your blood sugar. More vigorous exercise and sustained exercise is often needed to reverse severe insulin resistance or diabetes. Doing sustained aerobic exercise for up to 60 minutes 5 to 6 times a week is often necessary to get diabetes under full control. You want to work at 70 to 85 percent of your target heart rate, which you can find by subtracting your age from 220 and multiplying that number by 0.70 to 0.85. Interval training can be an added benefit to helping improve your metabolism and mitochondrial function. It helps to increase the efficiency calorie burning so that you burn more calories and energy during the time you are NOT exercising.

Strength training also helps maintain and build muscle, which can help also with your overall blood sugar and energy metabolism.

Supplements that Can Help Reverse Diabetes

Nutritional supplements can be very effective for Type 2 diabetes and insulin resistance. I recommend a number of different supplements, depending on the severity of the problem:

- A multivitamin and mineral. Consider active nutrients, by Xymogen or Phytomulti, by Metagenics
- MCHC Calcium and magnesium and vitamin D, called ULTIMATE BONE OR ULTIMATE BONE DEFENSE
- Fish oil (1,000 to 4,000 mg) a day improves insulin sensitivity, lowers cholesterol, and reduces inflammation, consider omega 900mg or omega 10 Metagenics
- Extra magnesium (200 to 600 mg a day) helps with glucose metabolism and is often deficient in diabetics.
- Chromium (500 to 1,000 mcg day) is very important for proper sugar metabolism.

- Antioxidants (such as vitamins C and E) are important in helping to reduce and balance blood sugar, consider DETOXANTIOX by DESIGNS FOR HEALTH

- B-complex vitamins are important and are part of a good multivitamin. Extra vitamin B6 (50 to 150 mg a day) and B12 (1,000 to 3,000 mcg) are especially helpful in protecting against diabetic neuropathy or nerve damage.

Consider ULTIMATE B

- Biotin (2,000 to 4,000 mcg a day) enhances insulin sensitivity.

- I also encourage people to use alpha-lipoic acid (300 mg twice a day), a powerful antioxidant that can reduce blood sugar significantly. It also can be effective for diabetic nerve damage or neuropathy, use **insulin control**

- Evening primrose oil (500 to 1,000 mg twice a day) helps overcome deficiencies common in diabetics.

- I encourage people to use cinnamon as a supplement. One to two 500 mg tablets twice a day can help blood sugar control, use CINNDROMEX BY XYMOGEN

- Other herbs and supplements that can be helpful include green tea, ginseng, bitter melon, gymnema, bilberry, ginkgo, onions, and garlic. Fenugreek can also be used to help improve blood sugar, although large amounts must be taken. Clinical Nutrients for diabetics by integrative therapeutics, and ultraglycemX by Metagenics are great options to support all these.

- I recommend fiber, such as Metafiber by Metagenics This helps reduce blood sugar after meals and improves long-term blood sugar control while reducing appetite and cholesterol.

Manage Diabetes by Managing Stress

Stress plays a dramatic role in blood sugar imbalances. It triggers insulin resistance, promotes weight gain around the middle, increases inflammation, and ultimately can cause diabetes. So it's essential to engage in relaxation practices on a regular basis, such as yoga, breathing, (see our relaxing breath) progressive muscle relaxation, guided imagery, hot baths, exercise, meditation, massage, biofeedback, hypnosis, or even making love. Your survival depends on it. Consider Cortisol Manager or Adreset by Metagenics, for good adrenal support.

Article title: Diabetes Prevention

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Date: February 2014

Publisher: The Healing Gardens, Fort Collins, Colorado, USA

Pages: 6

Web source:

<http://thehealinggardens.org/images/PDFs/Article%20Archives/DiabetesPrevention.pdf>

