"The exact nutritional plan you need to defeat diabetes forever"

How to Eat to Beat Diabetes

Includes “7-Day Rapid Results” Meal Plan
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Introduction

In western culture, diabetes has become a rampant problem. The fifth leading killer of Americans, with 73,000 deaths a year, diabetes is a disease in which the body’s failure to regulate glucose, or blood sugar, can lead to serious and even fatal complications.

Historically, type II diabetes has generally shown up in unhealthy people around 40 years of age. However, with the wide array of garbage foods on the market and sugar consumption at an all time high, type II diabetes (also known as adult-onset diabetes) is now being diagnosed in kids as young as 10 years old!

The focus of this report will be on type II diabetes because it is most linked to our lifestyle choices. Type I diabetes is typically seen in younger individuals (less than 30 years of age) and arises due to possible causes such as autoimmune issues and viral infections.

Type II diabetes is commonly referred to as “non-insulin dependent diabetes mellitus” because it is NOT dependent on insulin whereas in type I insulin is required because the pancreas no longer produces insulin.

As you read what follows keep in mind that I will not discuss exercise protocols. The reason for this is that any and all forms of exercise will benefit the diabetic patient and help others prevent been diagnosed. The most important thing to remember about exercise is that it has the exact same effect as insulin on glucose metabolism – it enhances the cell’s ability to uptake glucose from the blood!
So as you follow these nutrition protocols you better be exercising...otherwise I’ll come after you!

Before we continue please note that from this point on I will refer to type II diabetes simply as diabetes (for no other reason than to save my fingers from further typing).
How is Diabetes Caused?

Essentially, diabetes is the eventual outcome of disordered carbohydrate metabolism. Diabetes is defined as increased blood sugar levels resulting from insulin impairment, either in secretion or in action.

Let’s use the following analogy to describe how it is typically comes about.

What happens when you eat a sugar-coated doughnut (or similar sweet indulgence) early in the morning? Assuming that you’re young and healthy your blood sugar (glucose) levels will rise very quickly as the doughnut (refined carbohydrate) is easily broken down into simple sugars (glucose).

Having high levels of glucose in the blood is not wanted and therefore the hormone insulin is secreted from the pancreas to remove glucose from the blood and into the cells.

**Insulin** works by stimulating glucose transporters, called GLUT-4, to the cell membrane of muscle, fat, and liver cells. These GLUT-4 transporters, once translocated to the cell membrane, allow glucose to diffuse into the cell.

Since glucose has been absorbed into the cells from the bloodstream your body now needs to find a way to re-establish a normal blood glucose level. This occurs because your brain’s main fuel is blood glucose; therefore, maintaining adequate blood glucose levels is one of the body’s most important priorities. Because of the brain’s requirement for blood glucose, a lack of it can lead to headaches, dizziness, fatigue, and a feeling of being “spaced out”. This is called reactive hypoglycemia.
Your body needs to re-establish its blood glucose levels, so now the search is on to fix this sugar “craving”. In this situation, if you choose another refined carbohydrate (ie. chocolate, candy, soda, pastries, etc…) then the events described above will repeat themselves in the same sequence. This can easily get out of control and become a vicious downward cycle.

On the flipside, if you do not eat for several hours another hormone called glucagon will be released from the pancreas in order to break down glycogen (stored glucose from the cells) into glucose for energy needs.

Over time, if these scenarios continually take place your pancreas will become tired from excessive stimulation. As such, insulin and glucagon become delayed in their release. And if insufficient insulin is being secreted, then blood sugar levels will remain elevated. This may also occur if the receptors on the destination cells become “insensitive” to insulin as a result of over-stimulation.

Ultimately, blood sugar will pool in the blood stream, not being able to be utilized by the cells, and you will become tired, as the base for energy production is missing from the cells. These are the premises for creating blood sugar irregularities and the base for hypoglycemia (low blood sugar) and later on, diabetes.
Even though there is a small genetic tendency for developing diabetes, the major contributing factor is lifestyle! Diet plays a paramount role in the development (or prevention) and treatment of diabetes.

Who do you know who is **overweight**, eats lots of **dietary fats** (and not the good ones), and has a high intake of **refined carbohydrates** and sugary foods?

Maybe this describes you or someone you know???

The point is that these 3 characteristics make up the bulk of what causes diabetes.
List of the Major Contributors (or Risk Factors) To Diabetes:

1. Being overweight or obese

2. Eating a high fat diet (especially saturated animal and trans fats)
   Recent research has shown that knocking out the enzyme known as GnT-4a (glycosyltransferase) disrupts insulin production and that a high-fat diet suppresses the activity of this enzyme, leading to type 2 diabetes due to failure of the insulin-producing beta cells in the pancreas. This enzyme GnT-4a was known to maintain glucose transporters on the surface of beta cells in the pancreas.

3. High intake of refined carbohydrates
   Explained earlier.

4. Chromium deficiency
   Chromium is an essential mineral in glucose metabolism.

5. Smoking
   Recently the Journal of the American Medical Association conducted a review of 25 studies looking at 1.2 million subjects revealing that smoking increases your risk of developing diabetes by 44%.

6. Lack of physical activity
   This is pretty obvious. Being sedentary can lead to excess body fat, high blood pressure, and poor blood sugar regulation. After all, exercise has the same effect as insulin on glucose uptake!
7. **Having high blood pressure and/or high cholesterol**
   These conditions are linked to diabetes and heart disease.

8. **Age**
   The risk for diabetes increases as you age, especially after 40. But as previously mentioned, it is now being diagnosed in individuals much younger due to inactivity and being overweight.

9. **Ethnic group**
   African Americans, Latinos, Hispanics, Native Americans, Asian Americans, and Pacific Islanders are more likely to develop diabetes.

10. **Family history/genetics**
    Your risk is higher, if you have a close relative (parent, brother, sister) with diabetes. Those who belong to a family background of diabetes are 25% more prone to develop diabetes.

11. **Stress**
    Either physical injury or emotional disturbance is frequently blamed as the initial cause of the disease. Any disturbance in adrenal-related hormones such as cortisol and adrenaline may lead to clinical signs of diabetes.

It is important to remember that like with any other disease new research findings are always surfacing. As such, the above list is by no means an exhaustive one.

I've included the following section to give you some more insight into some of these new findings into the possible causes of diabetes.
New Research on the Causes of Diabetes

An explosion of new research is vastly changing scientists’ understanding of diabetes and giving new clues about how to attack it.

Until very recently, the regulation of glucose — how much sugar is present in a person’s blood, how much is taken up by cells for fuel, and how much is released from energy stores — was regarded as a conversation between a few key players: the pancreas, the liver, muscle and fat.

Now, however, the party is proving to be more complex than anyone had previously thought.

**The Role of Bone in Diabetes and Fat Prevention**

New research suggests that a hormone from the skeleton, of all places, may influence how the body handles sugar. Mounting evidence also demonstrates that signals from the immune system, the brain and the gut play critical roles in controlling glucose and lipid metabolism. (The findings are mainly relevant to Type 2 diabetes).

Focusing on the cross-talk between different organs, cells and molecules represents a very different paradigm for understanding how the body handles glucose.

As we mentioned already, the defining feature of diabetes is elevated blood sugar. But new research is now reporting that the reasons for abnormal sugar seem to differ tremendously from person to person.

An eye-opening study from researchers at Columbia University Medical Center published in the journal *Cell* (August 10, 2007) discovered startling
results whereby a hormone, called osteocalcin, released from bone may help regulate blood glucose.

The research revealed that bone cells release a hormone called osteocalcin, which controls the regulation of blood sugar (glucose) and fat deposition through synergistic mechanisms previously not recognized. Usually, an increase in insulin secretion is accompanied by a decrease in insulin sensitivity. Osteocalcin, however, increases both the secretion and sensitivity of insulin, in addition to boosting the number of insulin-producing cells and reducing stores of fat.¹

In this published research, the authors showed that an increase in osteocalcin activity prevents the development of type 2 diabetes and obesity in mice. Because of these findings, the skeleton is now being viewed as an endocrine gland (much like the adrenals or thyroid) for it is producing hormones that act outside of bone.

In previous work, the same researchers had shown that leptin, a hormone produced by fat, is an important regulator of bone metabolism. In this work, they tested the idea that the conversation was a two-way street hypothesizing that if fat regulates bone, bone in essence must regulate fat.²

Working with mice, they found that osteocalcin acted by signaling fat cells as well as the pancreas. The net effect is to improve how mice secrete and handle insulin, the hormone that helps the body move glucose from the bloodstream into cells of the muscle and liver, where it can be used for energy or stored for future use. Insulin is also important in regulating lipids.

In Type 2 diabetes, patients' bodies no longer respond to the hormone's directives. Their cells are insulin-resistant, and blood glucose levels surge. Eventually, production of insulin in the pancreas declines as well.

What these 2 studies revealed is that in mice prone to Type 2 diabetes, an increase in osteocalcin addressed the twin problems of insulin resistance and low insulin production. That is, it made the mice more sensitive to insulin and it increased their insulin production, thus bringing their blood sugar down. As a bonus, it also made obese mice less fat.

A deficiency in osteocalcin could also turn out to be a cause of Type 2 diabetes.

**Can Inflammation Lead to Diabetes?**

Another recent suspect in glucose regulation is the immune system. In 2003, a study in the *Journal of Clinical Investigation* found that fat tissue from obese mice contained an abnormally large number of macrophages, immune cells that contribute to inflammation.

Scientists have long suspected that inflammation was somehow related to insulin resistance, which precedes nearly all cases of diabetes. In the early 1900s, diabetics were sometimes given high doses of aspirin, which is an anti-inflammatory.

Many researchers agree that obesity is accompanied by a state of chronic, low-grade inflammation in which some immune cells are activated, and that that may be a primary cause of insulin resistance. They also agree that the main type of cell responsible for the inflammation is the macrophage.
New research also suggests that not all macrophages are created equal. There appear to be “good ones and bad ones” competing in fat tissue, with potentially large consequences for inflammation and diabetes.

Due to the role of inflammation in diabetes (and all other diseases) the intake of anti-inflammatory is not only helpful but necessary for effectively preventing and managing diabetes.

**The Brain and Glucose Metabolism**

Another participant in glucose metabolism is the brain. Its role has long been suspected. More than a century ago, the French physiologist Claude Bernard suggested that the brain was important in blood sugar regulation. He punctured the brains of experimental animals in specific areas and managed to derange their blood sugar metabolism, making them diabetic.

But for years, virtually no one followed up on this finding. People thought about glucose as a critical fuel for the brain but never considered its reciprocal role in glucose regulation.

Only recently, with more advanced laboratory techniques, has this role been definitively established and expanded upon.

For instance, once scientists developed the ability to manipulate mice so that they lacked particular receptors in specific tissues, they could show that mice without insulin receptors in the brain could not regulate glucose properly and went on to develop diabetes. These findings were published by Dr. Kahn and his team in the journal *Science* in 2000.3

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Other researchers have shown that free fatty acids, as well as the hormone leptin, produced by fat tissue, signal directly to a part of the brain called the hypothalamus, which also regulates appetite, temperature and sex drive.

And several recent papers suggest that direct signaling by glucose itself to neurons in the hypothalamus is also crucial to normal blood sugar regulation in mice.

If the brain is getting the message that you have adequate amounts of these hormones and nutrients, it will constrain glucose production by the liver and keep blood glucose relatively low. But if the brain senses inadequate amounts it will activate responses that cause the liver to make more glucose, and new evidence suggests that this contributes to diabetes and impaired glucose metabolism.

The brain, therefore, appears to be listening to, and making sense of, a chorus of signals from insulin, leptin, free fatty acids and glucose itself. In response, it appears to send signals to liver and muscle cells by way of several nerves, though additional mechanisms are probably involved.

**The Digestive System and Glucose Regulation**

The gut also seems to play an integral role in sugar regulation.

It appears as though hormones from the small intestine called **incretins** talk directly with the brain and pancreas in ways that help reduce blood sugar and cause us to eat less and lose weight.

The 2 principal incretin hormones are glucagon-like peptide (GLP)-1 and glucose-dependent insulino tropic polypeptide (GIP). GLP-1 and GIP are
small peptides that rapidly stimulate the release of insulin only when blood glucose levels are elevated, thereby enhancing the glucose-sensing and insulin secretory capacity of the pancreas.

It is important to note that with all of these exciting new findings relating to glucose metabolism, diabetes, and weight management, drug companies have been quickly scouring to find new ways of treating diabetes.

Unfortunately, I personally do not believe that drugs are the way to prevent and manage diabetes. However, each case is specific and should always be evaluated by a doctor.
Clinical Aspects of Diabetes

There are 3 hallmark signs of diabetes. If you exhibit these 3 signs then I would highly recommend having your blood sugar level tested by your doctor and to subsequently follow the protocols later in this report.

Most commonly, the classic triad is as follows:

- **Polyuria** (excessive urination)
- **Polydipsia** (excessive thirst)
- **Polyphagia** (excessive hunger)

### Testing Your Blood Sugar – Fasting Blood Glucose Test

<table>
<thead>
<tr>
<th>Fasting Blood Glucose</th>
<th>What It Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 70 to 99 mg/dL (3.9 to 5.5 mmol/L)</td>
<td>Healthy, normal fasting glucose</td>
</tr>
<tr>
<td>From 100 to 125 mg/dL (5.6 to 6.9 mmol/L)</td>
<td>Impaired fasting glucose (pre-diabetes)</td>
</tr>
<tr>
<td>&gt; 126 mg/dL (&gt; 7 mmol/L)</td>
<td>Diabetes</td>
</tr>
</tbody>
</table>

**Keep in mind that...**

Drugs, including corticosteroids, tricyclic antidepressants, diuretics, epinephrine, estrogens (birth control pills and hormone replacement), lithium, phenytoin, and salicylates, can increase glucose levels, while drugs such as acetaminophen and anabolic steroids can decrease levels.

### The A1C Test

The A1C test is a blood test that provides information about your average levels of blood glucose, also called blood sugar, over the past 3 months. The A1C test is sometimes called the hemoglobin A1c, HbA1c, or glycohemoglobin test.
To explain what an A1c is, think in simple terms. Sugar sticks, and when it's around for a long time, it's harder to get it off. In the body, sugar sticks too, particularly to proteins. The red blood cells that circulate in the body live for about three months before they die. When sugar sticks to these cells, it gives us an idea of how much sugar has been around for the preceding three months. Normally, the healthy range is 4-5.9 %. In poorly controlled diabetes, its 8.0% or above, and in well controlled patients it's less than 7.0%.

The benefits of measuring A1C is that is gives a more reasonable view of what's happening over the course of time (3 months), and the value does not bounce as much as finger stick blood sugar measurements.

**A1C and Blood Sugar Correlation**

<table>
<thead>
<tr>
<th>A1C</th>
<th>Blood Glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>126 mg/dL (7 mmol/L)</td>
</tr>
<tr>
<td>7%</td>
<td>154 mg/dL (8.5 mmol/L)</td>
</tr>
<tr>
<td>8%</td>
<td>183 mg/dL (10.2 mmol/L)</td>
</tr>
<tr>
<td>9%</td>
<td>212 mg/dL (11.7 mmol/L)</td>
</tr>
<tr>
<td>10%</td>
<td>240 mg/dL (13.3 mmol/L)</td>
</tr>
<tr>
<td>11%</td>
<td>269 mg/dL (14.9 mmol/L)</td>
</tr>
</tbody>
</table>


Your goal is to get your A1C levels under 6.5%.

Studies have shown that there is a 10% decrease in relative risk for every 1% reduction in A1C.
So, if you start off with an A1C of 10.7 and it drops to 8.2, though there are not yet at goal, you have managed to decrease your risk of vascular complications by about 20%. The closer to normal the A1C, the lower the absolute risk for microvascular complications.
Complications of Diabetes

Diabetes is a condition in which blood sugar levels remain dangerously elevated. Normally, the blood glucose level is maintained between about 3.9 and 5.9 mmol/L (70 to 100 mg/dL). The total measurement of glucose in the circulating blood is therefore about 3.3 to 7g (assuming an ordinary adult blood volume of 5 liters). However, having excess sugar in the bloodstream is dangerous for several reasons that revolve around compromising the integrity of the blood vessels and nerves, and their respective functions.

The main complications related to diabetes are the following:

<table>
<thead>
<tr>
<th>Acute Complications</th>
<th>Chronic Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypoglycemia</strong> (low blood sugar)</td>
<td><strong>Atherosclerosis</strong></td>
</tr>
<tr>
<td>• Too much insulin intake</td>
<td>Seems that it is a result of lipoprotein</td>
</tr>
<tr>
<td>• Missing a meal</td>
<td>(LDL, HDL) glycosylation. The affected LDL</td>
</tr>
<tr>
<td>• Over exercising</td>
<td>cannot fit into cholesterol receptors,</td>
</tr>
<tr>
<td></td>
<td>reducing elasticity of blood vessels.</td>
</tr>
<tr>
<td><strong>Diabetic Ketoacidosis</strong></td>
<td><strong>Diabetic Neuropathy</strong></td>
</tr>
<tr>
<td>• Lack of insulin leads to ketoacidosis</td>
<td>Loss of peripheral nerves function,</td>
</tr>
<tr>
<td></td>
<td>resulting in tingling, numbness, pain,</td>
</tr>
<tr>
<td></td>
<td>muscle weakness.</td>
</tr>
<tr>
<td>• Can lead to coma</td>
<td><strong>Non-Ketogenic Hyperosmolar Syndrome</strong></td>
</tr>
<tr>
<td></td>
<td>A result of dehydration, pneumonia, burns,</td>
</tr>
<tr>
<td></td>
<td>stroke,</td>
</tr>
<tr>
<td></td>
<td><strong>Diabetic Retinopathy</strong></td>
</tr>
<tr>
<td></td>
<td>Visual impairment due to</td>
</tr>
<tr>
<td></td>
<td>modifications of the retinal blood</td>
</tr>
<tr>
<td></td>
<td>vessels.</td>
</tr>
</tbody>
</table>

Diabetic Nephropathy
Affects the blood vessels in the kidneys.

Diabetic Foot Ulcers
Caused by small peripheral blood vessels being affected and not being able to supply oxygen to the cells.

There are 2 main theories for the probable causes of the aforementioned complications. They are the following:

- **Glycosylation of proteins** (binding of glucose to proteins). Elevated blood sugars can affect the normal structure and function of protein molecules. Also, glucose can bind to the protein part of lipoproteins (ie. HDL, LDL), interfering with lipid (fat) transport and creating enough modifications at the vascular (blood vessel) level that the occurrence of atherosclerosis is probable.

- **Sorbitol accumulation.** In the healthy body, sorbitol (a by-product of glucose metabolism) breaks down into fructose which is then processed in the liver. However, in the diabetics case, blood sugar control is impeded and sorbitol accumulates inside the cells of the lens (eye), peripheral nerves, pancreas, and retinal blood vessels (eye) – disturbing the normal metabolic processes.
Don’t Worry…There is a Solution!

What I’d like to provide in the following section is a nutritional approach to preventing, managing, and ultimately defeating diabetes! Thankfully, in my experience, the following dietary protocols have done wonders for diabetics, and non-diabetics likewise. This protocol is very similar to what you would receive if working personally with me. Similar approaches have been taking by other nutritionists and naturopathic doctors.
Holistic Nutrition Approach to Preventing and/or Managing Diabetes

**Note:** Careful monitoring of blood sugar levels is a must!

**General Dietary Guidelines**

- It is very important to keep your body healthy. In doing so, do your best to identify, manage, and ideally **limit stressors and food allergies**.

- Providing proper **liver support** will be very helpful.
  - Increase your intake of fruits, vegetables, and water first and foremost.
  - Consume **liver-friendly foods** such as cabbage, broccoli, Brussels sprouts, citrus fruit, asparagus, artichoke, avocado, garlic, and onions.

- Choose **high-complex, high-fiber carbohydrates** instead of simple sugars and refined carbohydrates. The glucose molecules contained in complex carbohydrates are enclosed within cells and are associated with fiber. Thus, their digestion requires more time and their absorption is more gradual, allowing for much steadier levels of blood sugar.
  - **Examples:** root vegetables, non-glutenous grains (quinoa, amaranth, buckwheat), green leafy vegetables.

- **Increase your fiber intake.** Fiber slows down the carbohydrate absorption and improves glucose uptake by the cells.
- **Examples**: ground flax seeds, chia seeds, raw fruits and vegetables, non-glutenous grains, nuts and seeds.

- **Choose mostly foods on the low glycemic index** side (less than 55 on the GI chart) (standard value of 100 is based on increased levels of blood sugar after 100 g glucose ingestion).

### Abbreviated Glycemic Index Foods Chart

<table>
<thead>
<tr>
<th>Low Glycemic (Choose These Foods)</th>
<th>Medium Glycemic</th>
<th>High Glycemic (AVOID These Foods)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>Sweet Potatoes</td>
<td>Potatoes</td>
</tr>
<tr>
<td>Cherries</td>
<td>Mangoes</td>
<td>White Bread</td>
</tr>
<tr>
<td>Grapefruit</td>
<td>Pineapple</td>
<td>White Rice (instant)</td>
</tr>
<tr>
<td>Pears</td>
<td>Coca Cola</td>
<td>Brown Rice</td>
</tr>
<tr>
<td>Peppers</td>
<td>Corn</td>
<td>Watermelon</td>
</tr>
<tr>
<td>Broccoli</td>
<td>White Pasta</td>
<td>Dates</td>
</tr>
<tr>
<td>Lettuce &amp; Leafy Greens</td>
<td>Papaya</td>
<td>Gatorade/Sports Drinks</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>Oatmeal</td>
<td>Donuts</td>
</tr>
<tr>
<td>Lentils</td>
<td>Raisins</td>
<td>Millet</td>
</tr>
<tr>
<td>Kidney Beans</td>
<td>Rye Bread</td>
<td>Most Cereals (ie. Cheerios, Rice Krispies)</td>
</tr>
<tr>
<td>Meat (all)</td>
<td></td>
<td>Rice Pasta</td>
</tr>
<tr>
<td>Avocados</td>
<td></td>
<td>Parsnips</td>
</tr>
<tr>
<td>Quinoa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yogurt (regular)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* I have not included traditional “commercial” foods on this chart because THEY are the ultimate source of the problem. Anything that comes in a box or package should seriously be avoided. Seriously!
• **Take it easy on the fruit.** Having said that though, **small amounts of fresh fruit spaced throughout the day** may be beneficial as the fructose (sugar in fruit) is slow to be absorbed. Fresh fruit are also abundant in fiber, which further slows their sugar’s absorption. The fructose in fruit has also been found to enhance insulin sensitivity.

• **Juicing is NOT recommended** as the glucose molecules within the fruit and/or vegetables will be absorbed very quickly – spiking your blood sugar. Remember, when you juice you remove the fiber from the fruit/vegetable. It is this fiber that helps slow down the glucose absorption. Juicing may be re-introduced once you have re-established adequate blood sugar control. Smoothies are OK since they contain the fiber.

• **Minimize saturated animal and trans-fats intake,** as cardiovascular complications are frequent consequences of diabetes. Instead, **choose the healthier monounsaturated fats** (avocado, olives) and **omega-3 fatty acids** (fish oil, walnuts, flaxseed oil, hemp oil). These fats are actually cardio-protective.

• **Always eat a carbohydrate with a protein.** The protein will delay the absorption time of the carbohydrate, thus helping to stabilize blood sugar levels. Although I recommend food combining in Eating for Energy, I wouldn’t advise following food combining principles if you are diabetic.

• **A diet rich in antioxidants is recommended** to maintain the health and integrity of the blood vessels and nerves. Eat plenty of fruits and vegetables and antioxidant superfoods such as goji berries, cacao, and acai, if desired.
• **Supplement with probiotics** (5-8 billion microorganisms/day) to ensure a healthy balance of gut flora. Several studies have shown that obese people have different intestinal bacteria than lean people. The more good bacteria you have, the stronger your immune system will be and the better your body will function overall.

Optimizing your gut flora is relatively easy. You can feed your body with good bacteria by eating fermented foods (like sauerkraut and miso) or by taking a high quality probiotic supplement.

**Diabetic-Friendly Foods**

• **Onions and garlic are helpful** as they seem to regulate blood sugar levels and are protective of the cardiovascular system.

• **Alfalfa** has also been shown to improve blood sugar control.

• ½ tsp of **ground cinnamon** taken at mealtime may greatly increase insulin sensitivity. Cinnamon also helps to stabilize blood sugar levels.

• **Watercress** and **horseradish** have beneficial effects on the pancreas.

• **Potassium rich foods** (ie. pretty much all fruits and veggies) seem to increase insulin sensitivity.

• **Bitter melon** and **Jerusalem artichoke** are helpful in lowering blood sugar levels.
• **Brewer’s yeast** (or nutritional yeast) may also be helpful as it contains healthy amounts of chromium and B vitamins – both of which are needed for optimal glucose metabolism.

## Helpful Supplements for Diabetics

**Note**: By no means are you required to use any of the following supplements. If you maintain a healthy diet full of fresh fruits and vegetables, nuts and seeds, healthy fat, limited amounts of non-glutenous grains, and organic animal products (2-3 times/week) you will be much better off than someone who eats poorly yet has a pantry full of the following supplements. The choice is yours.

- **Chromium – 200 mcg/day**. Very important for glucose uptake and overall blood sugar regulation.

- **Vitamin C – 2 g/day**. Important as it reduces sorbitol accumulation and it has an inhibitory effect on protein glycosylation.

- **Vitamin B complex – at least 50 mg of each B vitamin** (especially B3). B3 (niacin) is especially important as it very effective at lowering cholesterol and improving blood sugar control. B6 (Pyridoxine) may help to prevent diabetic neuropathy.

- **Vitamin E – 400-800 IU/day**. Improves the activity of insulin and protects against long-term complications of diabetes because of its antioxidant actions.
• **Magnesium – 500 mg/day.** It is recommended as most diabetics seem to be deficient in the crucial mineral. It has been shown to prevent diabetic retinopathy.

• **Bioflavonoid complex – 1-2 g/day.** They promote insulin secretion and protect against sorbitol accumulation.

• **Zinc – 30-50mg/day.** Needed for the metabolism of insulin.

• **Essential Fatty Acids.** Omega-3s offer protection against cardiovascular complications and enhance insulin secretion. Omega-6s have been shown to protect against diabetic neuropathy.

### Helpful Herbs for Diabetics

• **Fenugreek seeds** regulate blood sugar levels.

• **Bilberry extract** and **blueberries** are useful in prevent diabetic retinopathy.

• **Gingko biloba** is helpful in preventing diabetic neuropathy.

• **Gymnema sylvestra** is a herb that seems to enhance blood sugar control.

• **Stinging nettle, dandelion, and licorice root** are helpful in balancing blood sugar levels.

• **Schizandra** has also been shown to ameliorate blood sugar control.
Exercise and Diabetes

The importance of regular exercise is...well...critically important! I cannot stress this point enough.

The reason exercise is vitally important for diabetics (and all people) is that other than lowering bodyweight and making you stronger, it performs the SAME action as insulin.

At the cellular level, exercise stimulates the GLUT-4 transporters in your cells to migrate to the cell membrane and bring blood glucose into the cell.

Essentially, exercise makes your cells MORE sensitive to glucose (and insulin), which is an absolute must for those with Diabetes and blood sugar problems.

For now, I don’t care what type of exercise you engage in, just make you do something active EVERY SINGLE DAY for at least 30 minutes. The more intense the exercise the better!
Diabetic-Friendly Recipes

Now that we’ve covered what Diabetes is and how to get rid of it, I want to equip you with some Diabetic-friendly recipes that you can put to use immediately. All of these recipes contain foods that are LOW GI and will allow you to eat great tasting foods that will help you heal your body.

BREAKFAST

Spinach, Asparagus, and Goat Cheese Omelette

**Ingredients:**
- 3 eggs
- 1 scallion, minced
- 2 tablespoons chopped fresh thyme leaves
- 2 tablespoons chopped parsley
- 2-3 stalks of asparagus, trimmed and cut into 1” pieces
- 2 handfuls of baby spinach
- 4 tablespoons crumbled reduced-fat goat cheese
- Sea salt and pepper to taste
- Chives, for garnish

**Directions:**
1. In medium bowl, whisk together eggs, then stir in the scallions, thyme, parsley, pepper, and salt.

2. In a pot, bring the asparagus and simmer until tender. Drain, pat dry, and add to the egg mixture.
3. Heat a medium skillet coated with cooking spray over medium heat. Pour the egg mixture into the skillet, allowing it to cover the bottom of the pan. Cook for 2 to 3 minutes, or until the bottom just begins to set. Sprinkle with 1 tablespoon of the cheese. Add asparagus and spinach. Cook for 5 minutes, or until the eggs are almost set.

4. Using a spatula, fold the omelet in half. Cook for 3 minutes, or until the omelet is golden and the cheese is melted. Turn onto a plate and keep warm.

**Raw Granola**

**Ingredients:**
- 1/4 cup raw almonds, soaked
- 1/4 cup raw sunflower seeds, soaked
- 1/4 cup raw walnuts
- 1/2 cup dried apricots
- 1 tsp cinnamon
- 1 cup almond or rice milk
- Pinch of sea salt
- 1-2 cups almond milk

**Directions:**
1. Briefly pulse the almonds, sunflower seeds, and walnuts in a food processor.

2. Add the apricots, cinnamon, and salt and process briefly to mix.

3. Serve immediately with fresh berries and almond milk.
Blueberry Breakfast "Non-Cereal"

**Ingredients:**
1 cup fresh blueberries
2 tbsp chopped walnuts 2 tbsp hemp seeds
1 tbsp ground flax seeds 1-2 cups almond milk

**Directions:**
1. Combine all ingredients in a bowl and top with almond milk.
MAINS and SALADS

Slow Roasted Veggies

**Ingredients:**
1 med zucchini, cut into bite-size pieces
1 med summer squash, cut into bite-size pieces
1 med red bell pepper, cut into bite-size pieces
1 med yellow bell pepper, cut into bite-size pieces
1 sweet potato, cut into bite-size pieces (optional)
1 lb fresh asparagus, cut into bite-size pieces
1 red onion, chopped
1 tbsp thyme
3 Tbsp extra virgin coconut oil Pinch of sea salt and black pepper

**Directions:**
1. Preheat the oven to 450°F.

2. Place the zucchini, squash, bell peppers, asparagus, and onion in a large roasting pan, and toss with the coconut oil, salt, and black pepper. Spread in a single layer.

3. Roast for 30-40 minutes, stirring occasionally, until the vegetables are lightly browned and tender.
**Strawberry Avocado Salad**

**Ingredients:**
- 1 avocado, sliced
- 6 strawberries, stemmed and sliced
- Juice of 1/4 lemon
- 1 tbsp balsamic vinegar
- Fresh ground black pepper
- Pinch of sea salt

**Directions:**
1. Place avocado and strawberries in a bowl.
2. Add remaining ingredients, mix gently, and serve.

**Chicken Salad**

**Ingredients:**
- 2 boneless skinless chicken breasts (organic, free range)
- 1 head boston lettuce, spinach, or other leafy green
- 2 red bell peppers
- 3 scallions
- 1 cucumber
- 2 tbsp chopped peanuts
- Pinch of sea salt
- 2 tbsp olive
- 1 tbsp balsamic vinegar
- Juice of 1/2 lime

**Directions:**
1. In a skillet, bring one cup of salted water to a simmer.
2. Add in the chicken breasts, cover and cook over low heat five minutes.
3. Turn off heat; let steam five minutes. Shred chicken with a fork.

4. Cut the iceberg lettuce and bell peppers into strips, slice the scallions and quartered the cucumber lengthwise; slice thinly.

5. Combine vegetables and chicken; season with salt. Toss with oil/vinegar/lemon dressing and chopped peanuts.

Kale and Hempseed Salad

**Ingredients**

1 head curly kale  
1/4 cup hempseeds  
2 tablespoons extra virgin olive oil  
1 tablespoon apple cider vinegar  
Juice of half lemon  
Salt to taste

**Directions**

1. Remove leafy greens from the stem of the kale. Chop the green leaves up into bite size pieces.

2. Put in a large bowl and add raw hempseeds. Add olive oil, apple cider vinegar, lemon juice and salt and toss together.
Leafy Greens, Salmon, and Citrus Salad

**Ingredients:**

1 salmon filet (wild is best)  
1/4 red onion, minced  
1 tbsp balsamic vinegar  
3 tbsp extra-virgin olive oil  
1 tbsp extra virgin coconut oil  
3-4 handfuls of leafy greens (kale, swiss chard, spinach), chopped  
1 grapefruit, sectioned  
Pinch of sea salt and ground black pepper

**Directions:**

1. Combine onion, vinegar, 4 tablespoons of the oil, 1/4 tsp salt, and 1/8 tsp pepper in a jar with a lid. Close tightly and shake vigorously to combine.

2. Season salmon with salt and pepper.

3. Heat coconut oil in a large skillet over medium-high heat; cook until browned but still lightly pink inside.

4. Remove from heat, cut into 1/2-inch slices, and toss with 3 tablespoons of the dressing.

5. Gently toss together greens, grapefruit, and remaining dressing in a large bowl. Season to taste with salt and pepper and serve.
Veggie Chili With Avocado Salsa

**Ingredients:**

**Avocado Salsa:**
1 medium avocado, peeled and chopped
1 small tomato, finely chopped
1/4 red onion, finely chopped
1 clove garlic, minced
1 tablespoon chopped fresh cilantro
Juice of 1 large lime
Pinch of ground black pepper

**Directions:**
1. In a large bowl, combine the avocado, tomato, onion, garlic, cilantro, lime juice, cumin, and pepper. Lightly toss. Let stand for 30 minutes.

**Vegetarian Chili:**
2 tbsp extra-virgin coconut oil
1 onion, chopped
1 red bell pepper, chopped
1 can organic black beans, rinsed and drained
1 can organic diced tomatoes, with juice
1 cup organic vegetable broth
2 teaspoons chili powder
2 cloves garlic, minced
1 teaspoon ground cumin
1 teaspoon dried oregano
1 lime, quartered
2 tablespoons chopped fresh cilantro
Directions:

1. Heat the oil in a 6-quart Dutch oven over medium-high heat.

2. Add the onion and bell pepper and cook, stirring frequently, for 3 minutes.

3. Add the beans, tomatoes, broth, chili peppers, chili powder, garlic, cumin, and oregano and simmer for 45-60 minutes.

4. Serve with the avocado salsa, sour cream, and lime wedges. Sprinkle with the cilantro.

Avocado Sea Wrap

Ingredients:
1 avocado, cut into lengthwise strips
1 small handful alfalfa sprouts
1/4 cucumber, julienned
1-2 Nori sheets, rinsed and carefully unfolded Juice of 1/2 lemon
1-2 tbsp olive oil

Directions:
1. Lay the avocado strips, alfalfa sprouts, and cucumber inside the nori.
2. Drizzle some lemon juice and olive oil and roll to make a wrap.
Greeny Sesame Salmon

**Ingredients:**
1 salmon filet (wild is best)
1/2 small red onion, very thinly sliced
4 cups baby arugula or salad greens
Juice of 1/2 lime
2 tbsp reduced-sodium soy sauce or tamari
2 tbsp tahini
2 tsp sesame oil, divided
1 clove garlic, chopped
1 teaspoon chopped fresh ginger
Sea salt and pepper to taste

**Directions:**
To make sauce...
1. Combine 2 tablespoons vinegar, 1 tablespoon lime juice, soy sauce, tahini, 1 tablespoon oil, garlic, ginger, and 1 tablespoon water in blender; puree until combined.

2. Preheat grill to medium-high. Season both sides of salmon with salt. Place skin side down on grill; cook 3 minutes, or until skin shrinks and separates from flesh. Flip; cook 4 minutes, until done.

3. Place arugula/greens on plate and top with salmon. Drizzle sauce over top and serve.
DESSERTS

Hemp Balls

**Ingredients:**
- 2 cups hemp seeds
- 1 cup soaked almonds
- 1 cup sesame seeds, milled
- 1/4 cup honey
- 1/8 cup coconut oil

**Directions**
1. Place almonds into food processor and grind until fine.
2. Add sesame seeds, honey, and coconut oil. Process until combined.
3. Move ingredients to bowl and add hemp seeds. Form into balls, and place in container in refrigerator.

Raw Chocolate Pudding

**Ingredients:**
- Meat of one coconut
- 1/3 cup of coconut water
- 4 tablespoons cacao nibs
- 2 tablespoons organic maple syrup
- 1 teaspoon vanilla extract
- 1/4 cup carob powder
Directions:
1. Combine all ingredients in food processor and blend until smooth. Let chill in refrigerator for 60 minutes. Top with favorite berries and serve.

**Healthy Butter Bars**

**Ingredients**
- 1 cup coconut butter
- 1/2 cup almond butter
- 1/2 cup organic cocoa or carob powder
- 1/2 cup shredded coconut
- 2 tbsp organic maple syrup

**Directions:**
1. Melt coconut butter on stove and then combine all the ingredients in a large mixing bowl and stir until smooth. If pressed for time you don’t have to melt the coconut butter, but it improves the consistency.

2. Pour into a tray about 1/2 inch deep and place in the refrigerator until hard. Remove from refrigerator and cut into bars. Serve them immediately after cutting.
# 7-Day Diabetic-Friendly Meal Plan

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<th>DAY 1</th>
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Conclusion

I hope this report has shed some light on the danger of diabetes. At the same time, I hope you have realized that it is very much preventable and treatable through the appropriate lifestyle improvements, namely diet and exercise. Follow the guidelines that I’ve laid out for you and you’ll back to normal in no time.

Your friend and coach,

Yuri Elkaim, BPHE, CK, RHN
Professor, Super Nutrition Academy

Don’t Miss It.
Now that you’ve read this report, you’ll love what I’ve got coming your way in Module 1 of Super Nutrition Academy. It’s all about energy nutrition, carbohydrates, and sugar. Plus, you’ll develop a powerful habit to help you overcome any sugar cravings that might be holding you back from ultimate health.

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