Diabetes, Natural Support and Enhanced Prevention

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Diabetes is a disease in which the body does not produce or properly use insulin. Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily life. The cause of diabetes is unknown, although both genetics and environmental factors such as obesity and lack of exercise appear to play roles.

Diabetes is associated with increased risk of heart and kidney disease, stroke and numbness and tingling of the toes and fingers. Incredibly, there are 1.4 million new cases diagnosed each year.

There are two common causes of diabetes:

1. When there is not enough insulin in the body.
2. When your body becomes less responsive to the insulin produced.

Regardless of the cause for diabetes the same result happens; the inability of blood sugar to properly enter the trillions of cells, resulting in starvation of the cells within your body. This situation can best be summed up as both a drowning and drought occurring at the same time within the body. There is an abundant amount of blood sugar in the blood stream, yet the cells are starving and deplete of the blood sugar necessary to sustain them, let alone to allow them to survive. This lack of blood supply contributes to the fact that death rates are twice as high in middle-aged people with diabetes as among middle-aged people without diabetes.

What's Your Risk for Diabetes or Pre-Diabetes?

In the case of type 2 diabetes it does not occur overnight, it is a progressive condition that typically takes years to fully manifest, hence identifying your risk factors and supporting your body is critical to enjoying longevity, wellness and potentially avoiding the onset of diabetes or its side effects.

Type 2 diabetes contributes to about 90-95% of all diagnosed cases. Risk factors include older age, obesity, family history, gestational diabetes, blood sugar imbalance, physical inactivity and race/ethnicity. According to the CDC report on diabetes, "Many people with type 2 diabetes can control their blood glucose by following a healthy meal plan and exercise, losing weight and taking oral medication."

Clinically I certainly agree and the committed patient can become less dependent upon medication while under close medical supervision of their personal physician. The goal is simple, try to bring your body's level of wellness into the healthier state you enjoyed prior to the overt onset of diabetes. However, an even a better approach is prevention. This is why catching diabetes in the "pre-diabetes" stage is the goal. Indeed the pre-diabetic state is the best time to take action prior to your blood sugars becoming diagnosable as indicative of full blown diabetes. Impaired fasting glucose (IFG) and impaired glucose tolerance (IGT) are both significant clinical markers for pre-diabetes. You have IFG if your fasting glucose levels are between 100-125 (mg/dl) after an overnight fast. You have IGT if your glucose is 140-199 (mg/dl) after a 2 hour oral glucose tolerance test. If either of these two sets of numbers describe you, then you are in the danger zone. If you still don't exhibit these numbers, don't sit back and wait until you are broken to get fixed. An ounce of prevention is worth a ton of cure!

> According to statistics - 35 million adults ages 40 - 74 had IFG, 16 million had IGT and a full 41 million had pre-diabetes.

Why do you need to know what your numbers are? It's simple. Uncontrolled diabetes can lead to numerous devastating effects within the body including:

Heart Disease: This is the leading cause of diabetes-related deaths. Adults with diabetes have heart disease rates about 2 to 4 times higher than adults without diabetes.

Stroke: Risk of stroke is 2-4 times higher among diabetics.

High Blood Pressure: 73% of adults with diabetes have high blood pressure so severe as to require medications.

Kidney Disease: Diabetes is the leading cause of kidney failure and roughly 38,000 diabetics begin dialysis treatment for this each year.

Nerve Conditions: This is called neuropathy that can result in excruciating and debilitating suffering, affecting 60-70 percent of all diabetics.

Foot and Leg Ulcers: Painful ulcers can afflict diabetics.

Amputations: 60% of non-traumatic lower-limb amputations are associated with diabetes.

Dental Disease: Diabetics have twice the normal risk.

Pregnancy Complications

Blindness: The leading cause of new cases of blindness including cataracts and conditions that can lead to blindness including a condition called retinopathy, that involves the part of the eye called the retina that is essential for vision.

Over 200,000 people die each year from diabetes based on death certificate data and this number is believed to be underreported. Imagine a small city in North America eliminated each year. Based on this, diabetes is clearly worth ongoing discussion and preventative action.

Unfortunately the incidence of diabetes in the USA and Canada continues to grow despite massive efforts to educate and medicate those most susceptible. With these types of severe consequences arising from diabetes a pre-emptive defense to avoid getting diabetes or actively managing it is essential.

Diabetes is newsworthy and numerous public service alerts have appeared in national newspapers in an attempt to educate people on this largely preventable disease. Diabetes and pre-diabetes is an epidemic and without an active defense, you, your loved ones and friends are likely to become statistics too. This level of public health concern by the scientific and governmental agencies can be equated to the degree of concern about the dangers of smoking.

Modern Health Crisis

Diabetes is now considered the health crisis 'plague' of the new century. There is currently a tremendous gap in what conventional modern medicine can offer to ward off this dread disease. As a result, the opportunity for complementary health care to assist diabetics and pre-diabetics is growing. Most people with diabetes now prefer and demand alternative, natural therapeutic intervention to help ward off unnecessary suffering and risk.

Type 1 diabetes - Type 1 diabetes results from the body's failure to produce insulin, the hormone that 'unlocks' the cells of the body, allowing glucose to enter them. This affects 5 – 10% of those diagnosed with diabetes.

Type 2 diabetes - Type 2 diabetes results from insulin resistance (when a body fails to properly use insulin), combined with relative insulin deficiency. This affects from 90 – 95% of all those who are diagnosed with diabetes.

Both types of diabetes (Type 1 and Type 2) affect a total of 20 million people (13 million are diagnosed and 7 million are undiagnosed) in the USA and Canada, (6.2% population). Now with the new pre-diabetic criteria, it is estimated that an additional 20% of the North American are primed for conversion into full-blown diabetes.

A disease of these proportions obviously causes great suffering among many people, not including personal financial costs as well. (1)

Frequency of Diabetes - Under age 20:

165,000 North Americans in this age group have diabetes.*(Diabetes used to be limited to middle-aged).*

One of every 400 - 500 children now has Type 1 diabetes.

Type 2 diabetes is increasing among American Indian, African American, and Hispanic and Latino children.

Frequency of Diabetes - Over age 20:

20 million Americans and Canadians, (or 8.6%) of this age group has diabetes.

9 million men (or 8.3%) have diabetes.

11 million women (8.9%) have diabetes.

Frequency of Diabetes - Over age 60:

9 million Americans and Canadians, (over 18%) of all people in this age group have diabetes.

Incidence of Diabetes

Over 1.4 million new cases will be diagnosed each year in the USA and Canada alone.

Complications of Diabetes

In addition to concerns of heart disease and stroke, high blood pressure, kidney disease, nerve conditions, amputations, dental disease, pregnancy complications and the threat of blindness, diabetics are often more susceptible to other illnesses. Once acquired, they can be difficult to treat, and often have a worse prognosis than those without diabetes.

Proper treatment of diabetes requires much more than just insulin and dietary modification. Herbal medicines are an effective aid in the treatment of diabetes, as well as the multiple complications of this disease. Heart disease is perhaps the most deadly condition associated with diabetes. In addition, concomitant disease conditions such as high blood cholesterol, high blood pressure, diminished microcirculation, elevated lipids and tissue damage from free radicals must be addressed.

Supplements to a Good Diet and Lifestyle

There is no substitute for a healthy diet and lifestyle. The reality is that the SAD diet (**S**tandard **A**merican **D**iet) prematurely kills millions each year. Lowering your intake of simple refined carbohydrates is the first step in the right direction. Consuming more fresh vegetables and lowering the intake of breads and pastas is also moving in the right direction. Adding exercise to your daily routine is important, it can take the form of a rigid workout schedule or more simply walking to the store, walking to the mailbox, walking to the neighbors or taking a walk with a friend at lunch.

Think about what people did in the early 1900's, what can we learn from them. Did they have elevators or stairs?

As stated in the Journal of the American Medical Association 2002, our diets are not cutting it any longer when it comes to supporting our health. This is where supplements play a pivotal role in the creation and maintenance of a strong personal health program. If you

look at the word supplement, you do not see the word "substitute", rather a supplement is just that "something that should be added to a healthy diet and lifestyle". All the pills in the world can't "substitute" for eating the wrong food and not getting exercise.

Ganoderma lucidum (LingZhi)

Ganoderma lucidum, a medicinal mushroom used in (TCM) traditional Chinese medicine, produces a very broad spectrum of positive effects within the body and can assist in the treatment of diabetes and related conditions.

Among its clinical effects, LingZhi mushroom has the ability to lower blood pressure and cholesterol levels as well as treating cardiovascular and inflammatory diseases. All of these conditions can occur in poorly managed diabetics, and occur in greater frequency among diabetics than non-diabetics. So, regaining control of ones blood sugar and the augmentation of the body's protective mechanisms is essential.

LingZhi has been shown to decrease cholesterol production, an effect that can be utilized by the diabetic patient, who quite often have negative cholesterol lab values that speed up the process of heart disease. Ganoderic acid, a naturally occurring substance found in LingZhi, lowers cholesterol levels through its ability to lower the production of cholesterol within the body. (2)

In addition to this effect, LingZhi is able to decrease the formation of occlusions within the arteries by preventing the accumulation of cholesterol into human aorta cells, as scientist discover in laboratory tests of aorta tissues. (3)

LingZhi extracts have been shown to decrease blood clotting (4), that in turn helps lessen the risk of stroke and heart attack. Additionally, LingZhi can also be used for the direct adjunctive treatment of type 2 diabetes; it can elevate blood levels of insulin in patients with poor response to blood sugar levels, and aid in supporting proper liver function relative to sugar regulation. (5)

LingZhi extract has even been shown to protect the pancreas that produces insulin.(6) A study conducted in 2004 suggests that Lingzhi helps support dealing with diabetes as the authors state "One mechanism is results from its insulin releasing activity due to facilitation of calcium into the pancreatic beta cells" (beta cells produce insulin).(7) The ability of LingZhi polysaccharide extract to fight free radicals also helps protect the pancreas from damage.

The broad effects of LingZhi makes it a powerful adjunctive treatment in diabetes and the related health conditions. Incorporating LingZhi into a standard diabetic treatment regimen can help increase the likelihood of successful long term treatment and assist in decreasing diabetic-related damage to the body.

Cordyceps sinensis

Another important Chinese medicinal fungus, Cordyceps sinensis has broad applications in diabetes treatment. A recent study in 2004 has further supported the benefits of symptom relief associated with this ancient coveted mushroom.[8] Cordyceps has demonstrated several positive effects in the treatment of diabetes and diabetes-related diseases including helping prevent blood clots, decreasing the chance of certain types of irregular heart beats, lowering of blood sugar, and reduction of triglycerides and cholesterol, with all of these contributing to better microcirculation.

A polysaccharide derivative of Cordyceps was able to significantly lower plasma blood glucose, and was shown to increase the activity of a liver enzyme (glucokinase) responsible for decreasing internal sugar production, and helped regulate sugar processing by the liver. (8)

Cordyceps was shown to lessen insulin resistance by improving glucose use by skeletal muscles.(8) This is a significant positive effect since muscles serve a pivotal role in helping regulate healthy blood sugar levels. Cordyceps has also been shown in research models to help with increasing whole body insulin sensitivity.(9)

A similar polysaccharide derivative from Cordyceps reduced blood glucose levels to normal in diabetic laboratory animals, increased the liver's glucose-handling ability, and lowered triglyceride and cholesterol levels. (9)

The cholesterol lowering effects of Cordyceps showed increased high-density lipoprotein (HDL) levels and decreased very low-density lipoprotein and low-density lipoprotein cholesterol levels (VLDL + LDL) in subjects that were fed cholesterol-enriched diets. (10)

In addition to lowering cholesterol, Cordyceps was demonstrated to significantly decrease the levels of elevated free radicals in the blood that converts cholesterol to an even more damaging form. Evidence also showed a protective effect of Cordyceps to help prevent the deposit of cholesterol into the biggest blood vessel in the body, the aorta thus helping slow the development of hardening of the arteries. (11) Cordyceps is thus able to contribute to ones overall cardiovascular health which is essential when striving to diminish diabetic complications.

The antioxidant properties of Cordyceps on fats within the blood, such as cholesterol represents a considerable added benefit to those already mentioned for this medicine in the treatment of diabetes and heart disease. An extract of Cordyceps provides potent antioxidant protection and can help the body slow the accumulation of a substance (cholesterol ester) in to walls of arteries. (12)

Prevention of free radical damage is an important factor in the care of diabetes; damaging processes occur at an accelerated rate in people with diabetes, and may play a

major role in the long-term negative consequences of this disease.

Cordyceps should be considered one of the premier natural medicines for the treatment of diabetes and its associated disease conditions. No standard pharmaceutical medication performs such widespread actions that can be directed at lowering of blood sugar levels and preventing negative effects from diabetes lowering and protection of cholesterol levels.

Therapies aimed at protecting the heart and cardiovascular system in addition to stabilizing blood sugar are gaining recognition as a definitive treatment for diabetes and related conditions.

Coriolus versicolor (YunZhi)

Another effective plant medicine in the care and treatment of diabetes and diabetes related disease is the mushroom Coriolus versicolor (YunZhi). A highly effective free radical fighter, the effects of this plant are aimed at preventing damage to fats in the blood stream, thereby slowing or preventing atherosclerotic disease progression. (13)

Blood stream fat damage plays a major role in the development of harmful cells called foam cells that are involved in the hardening of arteries. A polysaccharide extract of Coriolus versicolor has been shown to protect immune cells called macrophage from injury, a negative consequence of several disease processes, especially diabetes and related conditions affecting the cardiovascular system. (14)

In addition, Coriolus exerts immune regulating effects that serve to help the immune system perform at higher levels. This effect is essential for diabetics, who often suffer from more diseases than non-diabetics, and when they are affected, recovery is much more difficult and associated with higher disease rates and mortality.

The medicinal effects of Coriolus are useful in the treatment of inflammatory disease conditions that accompany diabetes.

Uncontrolled inflammatory responses in the body can almost always be implicated in the progression and worsening of disease, especially diabetes. By helping control the inflammatory process of lipid peroxidation and at the same time increasing the patients immune function, Coriolus can offer significant treatment to the diabetic patient, offering protection from both long and short term disease consequences.

Maitake

There is growing evidence that maitake mushroom can have a favorable influence on high blood pressure and diabetes mellitus. A preliminary study has shown that blood pressure and circulation blood sugar was lowered when maitake was used in an investigational model.(15) Further studies need to be conducted to further define the impact maitake may have with long term human blood sugar control, however considering the immune benefits alone supplementation seems clinically prudent.

Lipoic Acid

A study reported in the medical literature October 2005, reflects the latest bench science occurring in the field of lipoic acid and the protective effects of lipoic acid in diabetic disease. Blood sugar levels within the animal study were lower and so was glycated protein and glycated hemoglobin. Additionally lipoic acid increased blood sugar utilization. (16)

Human studies have reported the protective properties of lipoic acid for glucose metabolism, nerve health and neuropathy protection and its clear effect as an antioxidant.

Grape Seed Extract and Vitamin C

Two of the biggest health issues associated with diabetes other than the elevated blood sugars are the increased risk of cardiovascular disease and nerve damage, called neuropathy. Grape Seed Extract and Vitamin C both can help confer additional protection to these vulnerable systems for diabetics and non-diabetics alike.

Grape Seed Extract and Vitamin C have both been shown to possess cardio-protective effects. Thus with the heightened risk of cardiovascular disease, the average diabetic patient should consider increasing their dietary intake of antioxidants and adhering to a supplementation regime that helps support healthier cellular functioning. Studies of Grape Seed Extract have shown the ability to increase circulation in test subjects with coronary artery disease[1], hyperlipidemia (excess blood fat) and healthy subjects.[2] Proanthocyanidins from grape seeds have exhibited numerous biological and pharmacological effects including anti-bacterial, anti-viral, anti-inflammatory, anti-tumor[3], antioxidant and the very important cardio-protective effects.[4] Each of these properties confer heightened levels of protection for individuals with diabetes.

Grape seed has been shown via research studies to serve as a potent and broad spectrum antioxidant. These antioxidant properties are essential to protecting nerves that are frequently attacked in diabetics. Indeed 60-70 percent of diabetics suffer from diminished quality of life as a result of nerve pain and sensations. Since the nervous system is particularly susceptible to free radical damage Grape Seed Extract can provide a vital neuro-protective effect. As shared in the 2005 Neuroscience Letters free radical damage (pro-oxidants) that are typically quenched by free radicals lead to damage of proteins, DNA and lipids (fats within the body) "leading to the common pathway for cell death".[5] Reflecting

the full significance and importance of having sufficient antioxidants in ones neurological tissues, within a 2005 article published in the International Journal of Developmental Neuroscience they state: "Antioxidants that accumulate in neuronal tissue (nerve tissue) are potential candidates for prevention or treatment of disorders involving oxidative damage.[6] Due to elevated blood sugar levels and altered cellular metabolism seen with diabetes the antioxidant protective effects of Grape Seed Extract not only can confer protection to the cardiovascular and nervous system, but also decreases free radical damage to the brain, liver and gastrointestinal tract.[7]

Beyond the cardio-protective and neuro-protective properties of Grape Seed Extract, supplementation of Vitamin C has been shown to lower glycosylated hemoglobin in diabetic patients.[8]

It was concluded in a recent 2005 study that Grape Seed Extract could exert anti-diabetic effects by protecting insulin producing pancreatic beta-cells, while slowing down the onset of diabetic complications. [viii]

NanoPro – Reflected Energy

Whether your goal is to protect your feet and keep them healthy or if you have feet that are complaining, NanoPro products can help support healthy blood flow and circulation.

The nanotechnology ceramics used in the creation of these products helps captures and conserves your body's natural far infrared without adding any foreign substances like magnetic waves into your body.

The mechanism on how it can support your feet and other parts of your body is well defined. By placing the exclusive nano-scale* ceramic compounds utilized in these NanoPro products next to a person's body, helps provide Reflective Resonant Energy (RRE) back to the individual which stimulates the tissues to increase metabolic activity as demonstrated by enhanced circulation and metabolic exchange. *(*one-billionth of a meter).*

NanoPro technology has also been incorporated in socks and shoe inserts to increase microcirculation in the ankles and feet to help support healthier circulation and alleviate discomfort from overuse, poor foot structure or the side effects of diabetes and overall poor circulation. These socks are clinically indicated for patients with diabetic induced compromised circulation and neuropathy as they do not have any restricting seams or apply pressure points as they augment capillary vasodilation to help increase critically required microcirculation to support cellular nutrient needs essential for the maintenance of tissue health and repair.

NanoPro Shoe Inserts are embedded with RRE nano-scale ceramic elements that reflect back towards the body the innate physiological energy emitted that has been well accepted to possess the ability to activate reflexology points in the foot, to stimulate the flow of chi to the vital organs and major muscles groups.

Conclusion

By incorporating botanical medicines with diet and lifestyle changes into the regimen of care for a diabetic, a patient and their doctor working together may discover that certain medications might be lowered, and the statistical outlook is definitively better than the patient who forgoes complementary medical treatment.

Botanical medicines can help your body to decrease blood sugars, cholesterol levels, and the free radical damage associated with elevated blood glucose and their effect on long-term patient stability.

The reduction of the process of hardening of the arteries associated with diabetes and the general aging process can help protect micro-circulation in diabetes and should be considered among the primary treatment considerations in addition to blood sugar normalization.

The botanical medicines described in this article can provide an effective means for the patient working toward health rather than symptom abatement.

Diabetes is a condition that carries with it many negative effects that may not manifest until much later in the persons life. These conditions can be addressed adequately with the correct complementary tools in addition to appropriate conventional therapies and dietary and lifestyle approaches.

As of 2005, 7% of the US population has diabetes. That is a total of 20.8 million people, with 6.2 million people being undiagnosed. In short it is my recommendation to all my patients to go to their physician, get routine blood work done annually and if necessary firmly request that tests be done.

All the above tests are standard medical labs that are performed thousands of times each day throughout North America.

"Inaction is the action of doing nothing"
Your health is more important than that, isn't it?

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Note: These statements have not been evaluated by the Food and Drug Administration.
These products are not intended to diagnose, treat, cure, or prevent any disease.