

Life and Diabetes

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Abstract- Life is precious. All should live happily. For that people must know preventive measures to lead a healthy life without any disorder. People should take balanced diet. Diabetes mellitus is a chronic disease of mankind throughout the world. General observation shows that lifespan of people with diabetes mellitus is better than other condition. Until European settlement of Australia 200 years ago, Aborigines lived as nomadic hunter-gatherers all over the continent under widely varying geographic and climatic conditions. Successful survival depended on a comprehensive knowledge of the flora and fauna of their territory. Available data suggest that they were physically fit and lean, and consumed a varied diet in which animal foods were a major component. Traditional methods of food preparation (usually baked whole or eaten raw) ensured maximum retention of nutrients. In general, traditional foods had a low energy density but high density of some nutrients. The Indian diet of the last century was much higher in carbohydrate and lower in fat compared with the modern-day diet. Any changes that this diabetes-prone population can make toward their traditional diet may help to decrease their incidence of diabetes. Mushroom also countered the initial reduction in plasma [insulin](#) and the reduction in pancreatic [insulin](#) concentration, and improved the hypoglycemic effect of exogenous [insulin](#). Traditional treatments have mostly disappeared in occidental societies, but some are prescribed by practitioners of alternative medicine or taken by patients as supplements to conventional therapy. However, plant remedies are the mainstay of treatment in

underdeveloped regions. A hypoglycemic action from some treatments has been confirmed in animal models and non-insulin-dependent diabetic patients, and various hypoglycemic compounds have been identified. A botanical substitute for insulin seems unlikely, but traditional treatments may provide valuable clues for the development of new oral hypoglycemic agents and simple dietary adjuncts.

Index Terms- Gooddiet , Diabetes free life, Diet for diabetes.

I. INTRODUCTION

Living with diabetes can be challenging, but you can still lead a near normal life. [Diet](#) and lifestyle are key components in living healthily with diabetes. Living with diabetes includes a plethora of information pages about the kind of things that you might need to know whilst living with diabetes. After the initial shock of a diabetes diagnosis wears off, family will begin adjusting to life with diabetes. With a little planning and preparation, one can resume all of normal day-to-day activities, such as exercising or going out to eat. Diabetes should not keep any person from achieving highest goals. There are Olympic athletes, professional football players, congressmen, actors and rock stars who live with diabetes. Get ready to manage diabetes with care and ease.

Living with diabetes



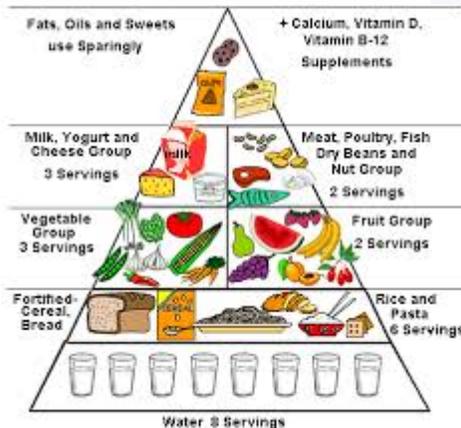
Diabetes can't stop us having a healthy, happy life!



Everyone who has diabetes should be seen at least once in every six months by a diabetes specialist (an endocrinologist or a Diabetologist) and also be seen periodically by other members of a diabetes treatment team, including a diabetes nurse educator, and a dietitian who will help to develop a meal plan for the individual. Ideally, one should also see an exercise physiologist for help in developing a physical activity plan, and perhaps, a social worker, psychologist or other mental health professional for help with the stresses and challenges of living with a chronic disease. Everyone who has diabetes should have regular eye exams (once a year) by an ophthalmologist to make sure that any

eye problems associated with diabetes are caught early and treated before they become serious. Diabetes is a disease in which the body does not produce or properly use insulin, a hormone that is needed to convert sugar, starches and other food into energy needed for daily life. The cause of diabetes is a mystery, although both genetics and environmental factors such as obesity and lack of exercise appear to play roles. There are three types of diabetes: Type 1, Type 2, Gestational Diabetes. The diet chart contains more cereals, millets, whole grains, leafy and fiber rich vegetables, small and frequent meal pattern can help to reduce the burden of diabetes mellitus.

Eat good food and lead a healthy life. Eat meals and snacks at regular times every day.



Diabetes is usually a lifelong (chronic) disease in which there are high levels of sugar in the blood. Diabetes mellitus is a metabolic disease in which the body's inability to produce any or enough insulin causes elevated levels of glucose in the blood. Diabetes is a disease in which the body is unable to properly use and store glucose (a form of sugar). Glucose backs up in the bloodstream — causing one's blood glucose (sometimes referred to as blood sugar) to rise too high. Diabetes can occur in anyone. However, people who have close relatives with the disease are somewhat more likely to develop it. Other risk factors include obesity, high cholesterol, high blood pressure, and physical inactivity. The risk of developing diabetes also increases as people grow older. People who are over 40 and overweight are more likely to develop diabetes, although the incidence of type 2 diabetes in adolescents is growing. Diabetes is more common among Native Americans, African Americans, Hispanic Americans and Asian Americans/Pacific Islanders. Also, people who develop diabetes while pregnant (a condition called gestational diabetes) are more likely to develop full-blown diabetes later in life. In type 1 (formerly called juvenile-onset or insulin-dependent) diabetes, the body completely stops producing any insulin, a hormone that enables the body to use glucose found in foods for energy. People with type 1 diabetes must take daily insulin injections to survive. This form of diabetes usually develops in children or young adults, but can occur at any age. Type 2 (formerly called adult-onset or non insulin-dependent) diabetes results when the body doesn't produce enough insulin and/or is unable to use insulin properly (insulin resistance). This form of diabetes usually occurs in people who are over 40, overweight, and have a family history of diabetes, although today it is increasingly occurring in younger people, particularly adolescents. Gestational diabetes is a temporary form of insulin resistance that usually occurs halfway through a pregnancy as a result of excessive hormone production in the body, or the pancreas' inability to make the additional insulin that is needed during some pregnancies in women without a previous history of type 1 or type 2 diabetes. Gestational diabetes usually goes away after pregnancy, but women who have had gestational diabetes are at an increased risk for later developing type 2 diabetes. Researchers have identified a small percentage of diabetes cases that result from specific genetic syndromes, surgery, chemicals, drugs, malnutrition, infections, viruses and other illnesses.

People with diabetes frequently experience certain symptoms.

- being very thirsty
- frequent urination
- weight loss
- increased hunger
- blurred vision
- irritability
- tingling or numbness in the hands or feet
- frequent skin, bladder or gum infections
- wounds that don't heal
- extreme unexplained fatigue

Treatment

There are certain things that everyone who has diabetes, whether type 1 or type 2, needs to do to be healthy. They need to have a meal (eating) plan. They need to pay attention to how much physical activity they engage in, because physical activity can help the body use insulin better so it can convert glucose into energy for cells. Everyone with type 1 diabetes, and some people with type 2 diabetes, also need to take insulin injections. Some people with type 2 diabetes take pills called "oral agents" which help their bodies produce more insulin and/or use the insulin it is producing better. Some people with type 2 diabetes can manage their disease without medication by appropriate meal planning and adequate physical activity. Also, people with diabetes need to learn how to monitor their blood glucose. Daily testing will help to determine how well their meal plan, activity plan, and medication are working to keep blood glucose levels in a normal range. Fat provides insulation for nerve cells, imparts warmth, balances hormones, keeps skin and arteries supple, lubricates joints and is part of every cell. We must eat unsaturated fats every day or else our body cannot function. People should eat Complete Proteins

(Meat, Poultry, Fish, Eggs, Cheese, Milk)& Incomplete Proteins (Vegetables, Grains, Legumes). Since proteins carry nutrients and oxygen throughout the body & fight disease by increasing antibodies and strengthening the immune system. A healthy diabetic meal plan includes: 1,500 calories - daily total carbohydrates 170 grams (45%), 40 grams (3 meals), and 15 grams (3 snacks).

II. DIABETES AND OTHER PROBLEMS

Healthcare team will encourage people with diabetes to follow meal plan and exercise program to keep blood glucose in as normal a range as possible as much of the time as possible. Because poorly managed diabetes can lead to a host of long-term complications — among these are heart attacks, strokes, blindness, kidney failure, and blood vessel disease that may require an amputation, nerve damage, and impotence in men. But happily, a nationwide study completed over a 10-year period showed that if people keep their blood glucose as close to normal as possible, they can reduce their risk of developing some of these complications by 50 percent or more.

III. RELATED STUDIES

The effects on glucose homeostasis of eleven plants used as traditional treatments for diabetes mellitus were evaluated in normal and streptozotocin diabetic mice. Dried leaves of agrimony (*Agrimonia eupatoria*), alfalfa (*Medicago sativa*), blackberry (*Rubus fruticosus*), celandine (*Chelidonium majus*), eucalyptus (*Eucalyptus globulus*), lady's mantle (*Alchemilla vulgaris*), and lily of the valley (*Convallaria majalis*); seeds of coriander (*Coriandrum sativum*); dried berries of juniper (*Juniperus communis*); bulbs of garlic (*Allium sativum*) and roots of liquorice (*Glycyrrhiza glabra*) were studied. Each plant material was supplied in the diet (6.25% by weight) and some plants were additionally supplied as decoctions or infusions (1 g/400 ml) in place of drinking water to coincide with the

traditional method of preparation. Food and fluid intake, body weight gain, plasma glucose and insulin concentrations in normal mice were not altered by 12 days of treatment with any of the plants. After administration of streptozotocin (200 mg/kg) on day 12 the development of hyperphagia, polydipsia, body weight loss, hyperglycaemia and hypoinsulinaemia were not affected by blackberry, celandine, lady's mantle or lily of the valley. Garlic and liquorice reduced the hyperphagia and polydipsia but did not significantly alter the hyperglycaemia or hypoinsulinaemia. Treatment with agrimony, alfalfa, coriander, eucalyptus and juniper reduced the level of hyperglycaemia during the development of streptozotocin diabetes. This was associated with reduced polydipsia (except coriander) and a reduced rate of body weight loss (except agrimony). Alfalfa initially countered the hypoinsulinaemic effect of streptozotocin, but the other treatments did not affect the fall in plasma insulin. The results suggest that certain traditional plant treatments for diabetes, namely agrimony, alfalfa, coriander, eucalyptus and juniper, can retard the development of streptozotocin diabetes in mice.

Twelve [plants](#) used for the traditional treatment of [diabetes mellitus](#) in northern Europe were studied using normal and [streptozotocin](#) diabetic [mice](#) to evaluate effects on [glucose homeostasis](#). The [plants](#) were administered in the diet (6.25% by weight) and/or as decoctions or infusions in place of drinking water, to coincide with the traditional method of preparation. Treatment for 28 days with preparations of burdock ([Arctium lappa](#)), [cashew](#) ([Anacardium occidentale](#)), [dandelion](#) ([Taraxacum officinale](#)), elder ([Sambucus nigra](#)), [fenugreek](#) ([Trigonella foenum-graecum](#)), guayusa ([Ilex guayusa](#)), hop ([Humulus lupulus](#)), nettle ([Urtica dioica](#)), [cultivated mushroom](#) ([Agaricus bisporus](#)), periwinkle ([Catharanthus roseus](#)), sage ([Salvia officinale](#)), and wild [carrot](#) ([Daucus carota](#)) did not affect the parameters of [glucose homeostasis](#) examined in normal [mice](#) (basal plasma [glucose](#) and [insulin](#), [glucose](#) tolerance, [insulin](#)-induced [hypoglycaemia](#) and glycated [haemoglobin](#)). After administration of [streptozotocin](#) (200 mg/kg) burdock and nettle aggravated the diabetic condition, while [cashew](#), [dandelion](#), elder, [fenugreek](#), hop, periwinkle, sage and wild [carrot](#) did not significantly affect the parameters of [glucose homeostasis](#) studied (basal [glucose](#) and [insulin](#), [insulin](#)-induced [hypoglycaemia](#), glycated [haemoglobin](#) and pancreatic [insulin](#) concentration). Guayusa and mushroom retarded the [development](#) of [hyperglycaemia](#) in [streptozotocin](#) [diabetes](#) and reduced the [hyperphagia](#), polydipsia, body weight loss, and glycated [haemoglobin](#). Mushroom also countered the initial reduction in plasma [insulin](#) and the reduction in pancreatic [insulin](#) concentration, and improved the hypoglycaemic effect of exogenous [insulin](#). These studies suggest the presence of potentially useful [antidiabetic](#) agents in guayusa and mushroom.

Can diabetes be prevented?

Maybe some day. Type 2 diabetes is the most common type of diabetes. Recent Studies show that lifestyle changes can prevent or delay the onset of type 2 diabetes in those adults who are at high risk of getting the disease. Modest weight loss (5-10% of body weight) and modest physical activity (30 minutes a day) are recommended goals. The rate of diagnosis of type 2 diabetes

in children and adolescents is increasing. Fortunately, diabetes can be managed with proper care. However, with careful attention of blood sugar control, lifestyle modifications and medications, one can manage diabetes and may avoid many of the problems associated with the disease. Proper inclusion of dietary fiber in diet can help for managing the disease easier. The reason it's so important to take charge of diabetes is that not only does diabetes contribute to chronic conditions like heart disease and high blood pressure, the complications from the very medications prescribed to control diabetes can lead to irreversible kidney damage.

IV. COMPLICATIONS OF DIABETES

- **Heart disease and stroke** Approximately 75 percent of people with diabetes will die of heart disease or stroke, and they are likely to die at a younger age than people who do not have diabetes. People with diabetes have the same cardiovascular risk as if they have already had a heart attack. People with diabetes are two to four times more likely to have heart disease (more than 77,000 deaths due to heart disease annually). Heart disease death rates are also two to four times as high as adults without diabetes. People with diabetes are two to four times more likely to suffer a stroke.
- **Blindness due to diabetic retinopathy** Each year 12,000 to 24,000 people lose their sight because of diabetes. Diabetes is the leading cause of new blindness in people 20 to 74 years of age.
- **Kidney disease due to diabetic nephropathy** Ten to 21 percent of all people with diabetes develop kidney disease. Diabetic nephropathy is the leading cause of end-stage renal disease (kidney failure), accounting for 43 percent of new cases. In 1999, 38,160 people with diabetes initiated treatment for end-stage renal disease, and 114,478 people with diabetes underwent dialysis or kidney transplantation. Kidney failure requires the patient to undergo dialysis or a kidney transplant in order to live.
- **Nerve disease and amputations** About 60 to 70 percent of people with diabetes have mild to severe forms of diabetes-related nerve damage, which can lead to lower limb amputations. In fact, diabetes is the most frequent cause of non-traumatic lower limb amputations. The risk of a leg amputation is 15 to 40 times greater for a person with diabetes. Each year, 82,000 people lose their foot or leg to diabetes.
- **Impotence due to diabetic neuropathy or blood vessel blockage** Impotence afflicts approximately 13 percent of men who have type 1 diabetes and eight percent of men who have type 2 diabetes. It has been reported that men with diabetes, over the age of 50 have impotence rates as high as 50 to 60 percent.

Reverse Diabetic Symptoms, Lose Weight, and Feel Great - It's Easier Than You Think!
Meal Plans are best to lead a happy life.

Key principles:

- The right combination of the right foods
- Eat foods high in the right kind of protein
- Let Whole gram Sundal be your snack
- Eliminate many “diabetic non friendly foods”
- Eat vegetable salad one cup a day
- Include fiber rich foods more
- Include Rice flakes, Millets & Leafy vegetables often
- Eat foods rich in anti oxidants
- Advisable to take small frequent nutritious meal
- Dine with family members
- Drink more water
- Take deep breath
- Do regular routine work
- Do regular exercise
- Laugh very often
- Lead stress free life

Drink to shrink- Six drinks that can sip on and actually lose weight.



Flavoured Water

Feeling bloated? Is there water retention near belly? [Drink more water](#). The more you drink, the better the fluid balance in your body. Besides, water offers a host of benefits for beauty and health. Try adding a bit of cucumber juice or lime to your water to ensure you drink more. This way, you get the goodness of water as well as the natural additives.

Fruit Juices- Watermelon and Pineapple

Drink some fresh and healthy fruit juices instead of sugar-filled tea or coffee for the day. Watermelon and pineapple are particularly effective—the former is a natural hydrator for the body and rich in nutrients, while the latter contains bromelain, which breaks down protein and reduces bloating. Ensure that you have these without sugar or artificial additives.

Detox Juices

Combine any fruit and vegetable and whip up a healthy drink. Not only will it deter you from mid-meal snacking, but it will also help to get healthy and glowing skin. It's ideal to mix citrus fruits with tomatoes, carrots and beetroot.

Green Tea

Beneficial green tea aids in reducing the risk of cancer and heart diseases. Green tea also helps clear body system and contains antioxidants that reduce fat—just what we need in place of our regular tea!

Dark Chocolate Shake

We know that, chocolate and diet don't go well together. But, they do. Have a sugar-free, skimmed milk dark chocolate shake in place of evening snack or morning breakfast and see the results.

Mint Iced Tea

Sugar-free mint iced tea is just right for a hot day. Have a glass to clear indigestion, [bloating](#) and get fresh. In the long run, this drink will help to cut down the cravings for calorie-filled tea and coffee breaks. Coffee has been associated with a reduced risk of developing diabetes. Caffeinated and decaffeinated coffee may have components other than caffeine that reduce blood glucose concentrations. But take the caffeine out of the coffee, and the caffeine will increase blood sugar up to 8 percent according to a recent study. This one study was conducted on 10 people with type 2 diabetes, using caffeine capsules. The dose was an equivalent of drinking 4 cups of coffee. How caffeine might raise blood sugar is unclear, perhaps a surge of adrenaline or cortisol elevates blood sugar, or caffeine alters the function of insulin. This small study opens up more questions, and hopefully more conclusive research will follow.

A study reported in *Diabetes Care*, March 2009, examined the effect of decaffeinated coffee on blood sugar levels in 15 overweight men (non-diabetics). The components in decaffeinated coffee, chlorogenic acid and trigonelline (also present in caffeinate coffee) reduced the glucose and insulin response for 15 minutes after ingestion of glucose in a standard OGTT, and then no longer effects. So, if you are a coffee drinker and frustrated by less than desired blood sugar control, consider switching to decaffeinated coffee. This small study was done with larger amounts of caffeine, so lesser intake of coffee may have minimal effects. More is yet to be known. Tea is a more widely used beverage than coffee, and has been used for medicinal purposes for centuries. Tea contains polyphenols - chemicals that have anti-cancer, anti-inflammatory and antioxidant effects. Tea also contains caffeine, and in a few studies, using oolong tea and green tea, have been shown to decrease blood glucose levels, improve A1C, total cholesterol and LDL cholesterol levels. Drinking green tea may lower the risk of developing type 2 diabetes. Teas have some side effects and interfere with nutrients and drug action if consumed in large or excessive quantities. Tea may interfere with the absorption of iron from food. Tea may also interfere with certain lab tests, thallium tests, uric acid tests, and vanillylmandelic acid concentrations. Tea may also worsen glaucoma due to increase eye pressure. Excessive amounts may cause insomnia, anxiety and restlessness, and increased bleeding if used with blood thinners. Again, excessive and continuous drinking of tea may have these effects, but the intake of a few cups of tea or glasses of iced tea a day are innocuous.

V. CONCLUSION

Health is Wealth. We should not live for food. To live a valuable life we should take balanced food. Prevention is better than cure. No sweat no gain. Temptation on food & laziness should be controlled. Plan evening walks, bicycle rides, and other physical activities, Timely meals, Good physical work, Stress free life, Good sleep can make us work more, earn more and help us to lead a meaningful diabetes free life.

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