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What Is Diabetes?

Diabetes is a disease that affects the way your body uses food. Normally, your body converts sugars, starches and other foods into a form of sugar called glucose. Your body uses glucose for fuel. The cells receive the glucose through the bloodstream. They then use insulin (a hormone made by the pancreas) to absorb the glucose, convert it into energy, and either use it or store it for later use.

In diabetes, something goes wrong with this process. Food is changed into glucose, but either your body doesn't make enough insulin or it can't properly use the insulin it produces. When the glucose is unable to enter the cells, it begins to build up in the bloodstream. High blood-glucose levels, or as they're sometimes known – high blood-sugar levels, are one of the main signs of undiagnosed diabetes.

The goal of treatment for all types of diabetes is to keep blood sugar at or near normal levels.

How Diabetes Works

Your body breaks down the food you eat during digestion. Food is broken down to three groups: proteins, fats, and carbohydrates. Meat, fish, eggs, and other dairy products give you the protein you need. Fats are found in vegetable oils, meat, cheese, and some dairy products. Carbohydrates find their way into your body through starches and sugars. Bread, pasta, fruits, and vegetables all have starches and sugars.

Carbohydrates then break down into blood sugar. This glucose gives you the energy that you need. Energy for a brisk walk, a run after a child, an aerobics class ... all comes from carbohydrates.

Blood sugar needs the help of insulin to absorb the glucose. Insulin is produced by the pancreas, along with other enzymes important for digesting food.

A diabetic's body may produce little or no insulin, or the cells may become insulin resistant. When the cells don't fully assimilate the glucose, it begins to collect. Eventually, the body will rid itself of the excess glucose through frequent urination. This is one of the first symptoms of diabetes.

If someone suffers from diabetes, the glucose in the blood can't properly serve the cells. This high level of glucose in the bloodstream will then eventually harm the body's organs and tissues.

Diabetes falls into two categories; these are Type 1 and Type 2.

Type 1 Diabetes

When the body doesn't produce insulin, or doesn't produce enough to regulate blood glucose levels, Type 1 diabetes is the result. About ten percent of diabetics in the United States have Type 1 diabetes. Also known as juvenile onset diabetes, it usually is diagnosed during childhood or early adolescence. It can occur in adults if the pancreas has been destroyed or removed. Diabetics who are Type 1 need daily insulin to stay alive.

Type 2 Diabetes

About 90 percent of diabetics have Type 2 diabetes. The body resists the

insulin the pancreas produces in these diabetics, and usually is discovered in adults after the age of 45. It's possible for younger patients to have Type 2 diabetes, and some patients diagnosed will need to use insulin daily. Weight loss, exercise, change of diet and oral medications are used to control Type 2 diabetes. We'll discuss this later in this report.

Diabetes Statistics

In 1998, there were 143 million diabetics in the world. That number is projected to double by 2025.

There are 23.6 million people in the United States who have diabetes. That's 7.8% of the population.

Diabetes is an indirect cause of over 200,000 deaths each year and over a million new cases are reported each year. The numbers keep increasing, largely because of increasing numbers of people who are obese or overweight. These same people generally do not get the proper amount of exercise.

Approximately one third of the people who have diabetes aren't even aware that they have the disease.

Diabetes Symptoms

The symptoms of both Type 1 and Type 2 diabetes are similar. It is the speed in which they manifest that differs.

Type 1 diabetes symptoms develop over a short period of time. Type 1 diabetes is caused by an autoimmune response within the body which attacks the precious beta cells in the pancreas. The condition is irreversible and sufferers will need insulin supplementation for the rest of their lives.

Because there is no insulin being produced in the case of Type 1 diabetes, symptoms develop and worsen very quickly with sufferers quickly falling into a diabetic coma if the condition is not diagnosed.

The situation is very different with Type 2 diabetes. In this form of the disease some insulin is still being produced and released. It may not be enough or the cells may have become resistant and unable to utilize the insulin that is available, but there will be some insulin present within the body. This means that symptoms develop more slowly and progress over an extended period of time. It can be many years before a Type 2 diabetic receives a diagnosis.

For both types of diabetes the symptoms are the same and it's important to seek medical help if any of the following are noticed:

Excessive Thirst – this is an early indication that all is not well. It can of course be attributed to other factors but it is worth asking the doctor to check if this symptom is noticed.

Frequent Urination – obviously if more fluid is going in, it has to come out. There may be a sweet smell to the urine, indicating high sugar levels. There can be other health conditions that cause more frequent urination and they are all worth checking out.

Vision Shifts – high blood glucose levels can damage the smaller blood vessels, which in turn can cause damage to the sensitive structure of the eye. Any sudden changes in vision must be investigated promptly.

Sweet Smelling Breath – while this isn't always associated with diabetes (you may just be a sweet person) it can be a symptom of the disease and is worth a visit to your doctor just to be sure.

An Increase In Appetite – a non-seasonal increase in appetite is worth noting, especially if this is accompanied by an unexplained weight loss.

Drowsiness And Lethargy – if you've been dragging and it doesn't appear to be getting any better, it's worth checking out. It's easy to overlook fatigue in these days of hectic lifestyles, but if the fatigue is persistent, that's a sign that something isn't right.

Heavy, Labored Breathing – this is difficult to associate with diabetes because it can be attributed to a wide variety of respiratory problems. It can also be attributed to diabetes.

Stupor And Unconsciousness – obviously, this is by far the most significant symptom and is an indication that diabetes has been festering for a long, long time.

Diabetes Type 2

Diabetes Type 2, also known as noninsulin-dependent diabetes mellitus, is the most common form of diabetes, and its sufferers are growing by the day. As we've already seen, this form of diabetes occurs when the pancreas is unable to produce enough insulin to properly process the glucose that the body creates from the food it takes in.

Although Diabetes 2 is commonly found in the overweight, thin people can also develop the disease and be a Type 2 diabetic. Elderly people are also at risk for developing Type 2. Other key factors that may determine a person's risk for Type 2 Diabetes include the following:

- Being African-American, Hispanic, or Native American
- A history of having gestational diabetes
- An HDL cholesterol level that is above 250mg/dL or one that is lower than 35mg/dL
- Being older than 45 years of age
- Poor diet, and low levels of exercise
- Excessive body fat, especially when found around the waist area

Type 2 Diabetes can be diagnosed through three commonly used methods. These tests determine your glucose levels and whether or not they're an indication of potential problems. The tests ...

- The Oral glucose tolerance test.
- The Random blood glucose level test.
- The Fasting blood glucose level test.

Fasting hyperglycemia is defined as a blood sugar greater than 130 mg/dL (milligrams per deciliter) after fasting for at least 8 hours.

Postprandial or after-meal hyperglycemia is defined as a blood sugar usually greater than 180 mg/dL. In people without diabetes after-meal sugars rarely

go over 140 mg/dL. However, occasionally after a large meal, a 1-2 hour post-meal sugar level can reach 180 mg/dL.

Receiving a diagnosis of Type 2 Diabetes can be shocking. However, you can still live a long, healthy, active life. It doesn't mean your life as you know it is over; it simply means you may need medication and you will have to consider certain lifestyle changes that can have an amazing outcome once you have done so.

We'll get into those next.

Controlling Diabetes 2



There is no cure right now for diabetes, whether it's Type 1 or Type 2. However, for Type 2 Diabetes there are lifestyle changes you can make that can dramatically influence how diabetes affects your life.

These are not changes that are impossibly difficult to make. They do, however, require commitment and follow through.

So let's take a look at some of these lifestyle changes in a little more depth ...

Check Your Glucose Levels

One of the benefits of modern technology is that we're armed with tools that can help us in everyday life. That's certainly the case here. A glucose monitor can instantly tell you whether your blood sugars are high or normal.

This is incredibly important information.

It tells you exactly how your body is responding to the different foods you eat, to the activities you participate in, and any medications you're taking.

Unfortunately, once they've been diagnosed, most Type 2 Diabetes quit regularly checking their blood levels with six months. A big part of the problem, of course, is that the damage diabetes is doing to your part is largely under the radar. You start feeling fine again, and even if you don't do everything the doctor suggests, you seem to be doing better than you ever expected.

So you quit checking your blood sugar levels.

And you still feel fine.

So you no longer feel there's any need.

Don't stop checking your blood sugar! It's the most important tool you have. Don't ignore it. Use it so you know exactly what's going on inside your body.

Eating Properly

Nutrition plays an important role in controlling your blood sugars. Your body requires carbohydrates, fats, and proteins. To keep blood glucose levels even, your body needs these in properly balanced amounts. Let's take a look at these three substances and see what they do.

Protein provides the body with quick energy and a feeling of being satisfied. When choosing protein foods, think of lean meats, chicken, and fish. You want to minimize your fat intake, so the best way to prepare these foods is by broiling or grilling. If you have kidney problems, you'll want to watch your protein intake even closer.

Even with all the low-fat diets and non-fat foods that are springing up everywhere, your body does need fat. It helps protect your organs, provides a concentrated source of energy, helps to regulate your body temperature, and is important in healing pain and inflammation. Fats also help us absorb fat-soluble Vitamins such as A, D, and E.

We do have to watch which fats we're consuming and how much we're consuming. There definitely are good fats and bad fats. Trans-fats should be avoided and saturated fats should be less than seven percent of your caloric intake each day. You should try to include fish products such as sardines or salmon in your diet as well as using vegetable oils to make sure you're getting enough of the essential fats.

Carbohydrates are an essential part of any diet. As with fats, there are two different types of carbohydrates – simple carbohydrates (which are generally sugar related) and complex carbohydrates. Both are bad for you if eaten in excess, though complex carbs take longer to be processed and are therefore better for the diabetic.

Examples of complex carbohydrates include beans, whole wheat bread, whole grain cereal, corn, and oatmeal. Examples of simple carbohydrates include chocolate, ice cream, cookies, cake, and honey. Sugar substitutes, such as Splenda, can be used if the FDA has approved them. However, you'll want to keep these limited as well, since they can trigger a hunger response.

Recent guidelines recommend 40 percent of your total daily calories should come from carbohydrates. These should be obtained from fresh vegetables, some fruits, and beans.

Another aspect of eating properly is your meal schedule. You should eat six small meals a day instead of three big meals. This helps to prevent taking in too many carbohydrates all at once and stressing your insulin production. It

also helps you to maintain an even blood sugar level throughout the day.

Drink at least 64 ounces of water each day. Any decaffeinated beverage can be counted as part of your water intake. Be careful of how much alcohol and caffeine you take in during the day.

Add a good daily multivitamin, too. It's not always easy to get your complete recommended daily servings of some vitamins and minerals strictly through your diet.

Finally, always carry an apple or some grapes with you. These provide one of the quickest ways to get a natural sugar fix if you begin to feel as if your blood sugar levels are dropping too low. Candy bars or soft drinks will rapidly restore your sugars as well, but if you're managing your diabetes then those foods could send you over the edge in the other direction.

Read Those Labels



Looking at food labels is an important new habit to start. The FDA requires that food items carry a nutritional information label. These generally include information such as calories, total fat, sodium, carbs, protein, etc.

You'll be watching the fats and carbs for the most part. Fats are broken down to saturated fats, trans-fats, polyunsaturated fats, etc. Carbs will include sugars and dietary fiber. As a

general rule, you can subtract the total grams of dietary fiber from the total grams of carbohydrates to get the true total.

Your biggest challenge in reading labels will be the serving size and number of servings per container. It's easy to forget to check these and make the assumption that the can or package is a single unit when it may be 7 or 12 or 15 servings. So instead of 150 calories, if you consume the entire package, you may end up taking in over a thousand calories.

Always read the label.

Always check the serving size.

Exercise

The dreaded exercise. You don't have to become a workout junkie in order to maintain control of your diabetes. But you do have to move and you do have to build muscle.

The purpose behind movement is to strengthen your heart, get your lungs filled with fresh oxygen, and to burn calories. If you haven't been exercising regularly for awhile, then start slowly. Take a brisk walk, swim, try shooting a few baskets, go bicycling, play a round of golf, march in place during commercials or jump rope. Make it an enjoyable activity that you'll look forward to doing on a regular basis. Three times a week for twenty minutes each session should be all you need.

Please also note that exercising for long periods or exercising strenuously can actually cause your blood sugar to rise. So you don't want to overdo it. And if you intend to stress your body through exercise (for example, if you intend to run in a marathon), consult with your doctor first to make sure it will be safe and that you prepare properly beforehand.

You should also pursue a strength training program. Recent scientific studies have shown that strength training improves insulin sensitivity much the same as aerobic exercise. This is a relative new finding and well worth noting. Research showed that strength training can:

- Improve your insulin sensitivity.
- Improve your glucose tolerance.
- Lower your risk for heart disease.

The best of both worlds, of course, is to do both. A regular, three times a week, exercise routine that includes aerobics and strength training can have a significant positive influence on your diabetes.

So get your body moving. It will help you deal with stress, reduce your blood glucose levels, benefit your heart, lower cholesterol and aid in elevating your mood. Any exercise is better than no exercise at all.

Get up, get moving, and get healthy!

Go on!

Listen To Your Doctor

Take your medications as prescribed by your doctor. They should be taken as

ordered and at the same time each day. These medications should be taken close to your regular meal times.

Your doctor will tell you to take care of your feet if you have diabetes. Listen. This doesn't sound like a big problem, but it can become one if you have sores on your feet and they become infected. Diabetes affects the circulation in your body, which affects your body's ability to heal. So check your feet carefully after a bath, or before you go to bed. Use a mirror to check the soles of your feet. And if you have a sore that doesn't begin healing in a couple of days, go to your doctor.

Brush and floss your teeth to help avoid gum disease. Gum disease is often associated with diabetic patients. High cholesterol and cardiovascular disease are also linked to gum disease.

Be sure to sleep the necessary hours for your body. A lack of sleep can contribute to Type 2 Diabetes. The recommendation is to sleep between seven to eight hours a night. Keeping regular hours will help as well. Go to bed at nearly the same time each night, and get up at a regular time each morning.

Keep your doctor's appointments. Take the tests that your doctor recommends. Make sure you follow your doctor's instructions. And take your prescribed medications according to the instructions on the label.

This all sounds fundamental and shouldn't need repeating, but the truth is this: most Diabetes 2 sufferers don't do it. Don't be one of them!

Conclusion

A diagnosis of Type 2 Diabetes does not mean the end of your life as you know it. However, it does mean that you're going to need to make some important lifestyles changes. The best approach is to make these changes gradually.

Behavioral changes are often the most difficult changes to make. You want to look at them as long-term changes. Not as quick fixes. Not as temporary changes. You want to gradually make positive changes by eating healthier meals, consuming fewer carbohydrates, increasing your exercising, and making sure your body gets plenty of rest.

While these may appear to be monumental changes at first, there is a bright spot. Diabetes 2, unlike any other disease, is largely controllable. By making these important changes in your lifestyle, you can minimize the effect the disease has on your body, and maintain an active and productive life for years to come.

Take control of your Type 2 Diabetes.

Don't let it control you.