

TYPE II DIABETES

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Type II Diabetes is essentially a genetic condition. It is a predisposition you are born with. You probably inherited it from your father or mother. Generally there are also other people in the family who have diabetes. However, though you inherit the predisposition, Type II Diabetes is triggered by several things:

- Increasing age
- Increasing weight
- Decreasing physical activity**
- Increased amounts of FAT in the diet
- Increased amounts of simple sugar in the diet

PHYSICAL ACTIVITY -

You can't do much about your age, but you can do something about your physical activity. You need to get lots of exercise. **In fact, the single most important thing you can do to treat Type II Diabetes is to exercise every day.** This should be the foundation of your Diabetes Control Program. It is more important than taking insulin, taking medication, or stopping fat and sugar, though you should do those things, too.

One half hour of vigorous exercise, or 1 hour of more mild exercise, such as walking, 7 days a week will often control or stop this type of diabetes. In one study, people who did aerobic exercise for an hour a day, seven days a week, for 10 years were not only able to control diabetes completely with their exercise, but many of them became diabetes free. Of course, they stuck with it faithfully, day after day, year after year. To make it work, exercise must become a real part of your life, and an automatic HABIT. So, exercise, exercise, exercise.

Make sure you start with exercise you can tolerate, for instance, start with mild aerobic exercise, or walking, not jogging, and build up from there. Build up to an hour a day every day. Pick something that you can stick with, and even come to LIKE doing.

LOSING WEIGHT -

Losing weight is hard to do, but even a small amount of weight loss can be very helpful. **In addition, you must be cautious about weight gain. Uncontrolled Diabetics generally lose some sugar in their urine. This may amount to several hundred calories a day. As we control your diabetes that extra sugar will be in your body as extra calories instead.** This may result in some weight gain unless you exercise and watch your diet carefully. Another

important factor: The Diabetes Gene itself seems to cause a tendency to gain about 5 pounds a year. So, unless you watch it, you will be in big trouble.

Luckily, the very best way to lose weight is to exercise every day and eat a good diet. Those are just the things you should be doing for your diabetes! So if they help you lose weight, too, then that is an added bonus.

DIET -

Everyone thinks that the main part of a diabetic diet is not eating sugar. **Actually, though decreasing sugar is important, it is even MORE important to cut FATS and OILS out of your diet.** You need to watch your diet and cut out all the possible oils and fats. That is because when oils and fats are adsorbed out of what you eat, some tissues will start trying to use them, in place of sugar. That means the sugar is not burned, and it stays behind in your blood stream and so your blood sugar level rises. So, LOW FAT is even more important than LOW SUGAR.

Of course, that doesn't mean you can just ignore sugar. You should cut out the concentrated sugar in your diet. That means no added sugar. It is OK if something is a little bit sweet naturally. If something is cooked with just a bit of sugar, like some type of sauce, that's fine. You probably aren't going to get enough sugar from that to cause a problem. But don't add sugar to anything, don't drink sugar or corn syrup sweetened soft drinks, and you also need to avoid fruit juices, until you get your diabetes under VERY good control. Vegetable juices are OK, but fruit juices are too concentrated.

Recent studies have also shown the surprising fact that **SIMPLE SUGARS, such as FRUIT SUGARS and HONEY are adsorbed very rapidly, so they raise your blood sugar much more than TABLE SUGAR!** (That doesn't mean table sugar is OK.) You can eat fruit, but it takes about four oranges to make one glass of orange juice so you're getting the calories from four oranges at once, and you're not even getting the whole orange. You're getting the sweet, sugary part of it which is separated out from most of the pulp and the fiber and the pectin and the things that help to slow up adsorption. The fruit sugar in them is not spread out and your body doesn't have a chance to handle it. The same thing goes for other fruit juices. You need to avoid fruit juices as much as possible.

So avoid as much fat and oil as possible. Do not put added sugar in anything, and especially, no soft drinks with sugar (they are all sweetened with the simple sugars from corn syrup), no fruit juices for now, and eat a sensible diet.

Think of foods as belonging in one of 5 groups. To these five groups we add water, so you have 6 things over all. The 6 items are:

1. Water
2. Vegetables
3. Starches, starchy vegetables, breads, grains, complex carbohydrates.
4. Fruit
5. Protein, meat, fish.

6. Fats, Oils, Fatty/oily food, Fried food, Margarine, Mayonnaise.

The best way to eat is to emphasize the things on the top of the list, and minimize the things on the bottom of the list. Each meal or snack should have: 1. Water and 2. Vegetables. If you want more, you can add: 3. Starches, and even 4. Fruit. Only main meals should include: 5. Protein, and the last item on the list, #6. Fats and Oils should be avoided as completely as possible. This is very important. It includes vegetable oil, and margarine and dairy fat. You should go with low fat or non-fat substitutes whenever possible, and try to avoid oily or fried foods.

It is important to avoid Fats and Oils for two reasons. 1. Nearly all the fat stored on you body probably came in as fat. Since losing weight is important in Diabetes, avoiding fats is important. 2. Fats and Oils tend to increase blood cholesterol. Because of the damaged condition of the blood vessels which is caused by diabetes, cholesterol causes extra injury to diabetics.

MEDICATION -

We may need to start you on medication, if your blood sugar remains high and you are not able to control it with diet and exercise alone. Control through exercise and diet is most important, but if that isn't enough then, like constructing a building, we will need to add the next step to them.

Taking the medication DOES NOT mean that you can stop your exercising and just go ahead and eat what you want, because doing that will cause bad side effects. Even though the medicines help to control the diabetes, they don't let your insulin producing cells rest and recover, like they can if you do enough exercise.

We may need to increase to the maximum dosage of medication unless you respond well. Even with the maximum dose we may not control your diabetes. We may need to add insulin to your regimen. Forty percent of Type II diabetics have to take insulin to get control.

They used to call this type of diabetes "adult onset diabetes" or "non insulin dependent diabetes," but that's not true. Sometimes children get this type of diabetes and 40% of the people who have this type of diabetes have to take insulin. The proper name is Type II Diabetes.

The other type of diabetes is Type I Diabetes. They used to call that "juvenile diabetes" or "insulin dependent diabetes." Though all Type I diabetics need insulin, that does not necessarily separate them from Type II Diabetics.

HEALTH RISKS/SIDE EFFECTS -

Type II Diabetes is the most common type of diabetes. Unfortunately, a lot of people call this borderline diabetes, and don't think they need to control it, unless they are on insulin. That is unfortunate. **There is NOTHING borderline about Type II Diabetes. And it is THE SINGLE MAJOR CAUSE OF BLINDNESS, AND KIDNEY FAILURE IN THIS COUNTRY.**

Type II Diabetes does have severe side effects. If you don't control your blood sugar, your risk of heart disease, kidney failure, blindness, amputations, and other serious medical problems go way up. Type II Diabetics like you have a 50 times greater chance of having an amputation of a leg or an arm than someone who is not diabetic. That's due to damage of the blood vessels that will occur. The major cause of renal failure and dialysis in this country is Type II Diabetes. The major cause of blindness in this country is Type II Diabetes.

You can avoid all of those harmful effects if you will get your blood sugar under control. In fact, if you get your blood sugar under control, eat a proper diet, and get good exercise, you may be healthier than the average person, but if you don't, there are potentially significant consequences.

THE NATURE OF TYPE II DIABETES -

The defects in this type of diabetes are in insulin processing, and in the insulin receptors. Essentially, when your blood sugar is high, your insulin receptors don't work, which makes your blood sugar higher, which makes your insulin receptors work less, and it can be a worsening cycle. That's a negative feedback system; the worse it is, the worse it gets. But, by the same token, the better we can do, the better you will do. The more we get your blood sugar down, the more your insulin receptors will work.

As we bring your blood sugar down you may feel some symptoms of hypoglycemia (low blood sugar), though your blood sugar may be at a level that's still far above normal. We'll give you an information sheet on hypoglycemia. Those symptoms will generally not be too severe, but you will possibly feel some of them. Even though your blood sugar might be 100 points higher than it should be, you may feel hypoglycemic because your insulin receptors aren't getting that sugar into the cells. If you do have some mild hypoglycemic symptoms, try to put up with them, if you can. After three or four days of a good blood sugar level, they should adjust.

It might take a lot of work and time to get blood sugar down. We probably have to see you every two weeks or so to start with, and as we get it under better control, we'll go every month and then every couple of months, but first we have to get it down. If we don't get it down with the diet, the exercise, and the medication, then we'll have to start you on insulin.

Once we do get your diabetes under good control, you can expect to live a long and healthy life, but you can't relax. Unfortunately, the nature of Type II Diabetes is that it will tend to gradually get worse, unless you keep right on top of it. Your blood sugar may be under good control, and then, if you quit exercising, eating right and taking your medications, you may suddenly find your diabetes to be much worse. So, don't relax, don't stop. Be serious about it. Be safe.

You didn't choose the color of your eyes, the color of your hair, or how tall you are, it's just in your genes. The same thing applies to Type II Diabetes. Your parents didn't choose it either. They inherited it from their ancestors, you inherited it from them, it's just the way it is. You can't change it, but you can work with it, if you are willing to do so.