

Dr. Harvey L. Katzeff

Tape 2

Interviewer: Paula Levine

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Harvey L. Katzeff, MD

Chief of Endocrinology at North Shore Long Island Jewish Health System.

Associate Professor of Medicine at the Albert Einstein College of Medicine.

Medical Director for the Diabetes Make-over Team.

An endocrinologist

PL: Okay. What is ... in two or three sentences, just tell me, what is diabetes?

PL: Diabetes is an elevation of the blood sugar. Normally, blood sugar ranges between 80 and 120 in most individuals. When people have diabetes, for whatever cause, their blood sugars are elevated.

PL: And how dangerous? Why is that so dangerous, and how does that spiral out of control?

HLK: Unfortunately, when blood sugars are elevated, it's a form of accelerated aging. And it is the major cause of blindness, kidney failure, and amputations through the high blood sugar. In addition, high blood sugars cause heart disease and stroke. So diabetes is a major cause of ... diabetes is a major problem and a cause of people requiring bypass surgery, stents, and having to enter the hospital with chest pain.

PL: And how many people are we looking at in this country right now with diabetes?

HLK: Well, diabetes right now is in epidemic proportions. Approximately 18 million people have diabetes, but unfortunately, six million people have diabetes and they don't even know it. And in the next quarter century, we estimate that the number of people with diabetes is going to double.

PL: Of the 18 million people who do have diabetes and know about it, how does it spiral out of control? Because clearly, you wouldn't have this program if keeping it in control wasn't at fault.

HLK: Well, diabetes, unfortunately, is a progressive disease. And initially, they may not have any symptoms. And it's only when the blood sugar gets very high, approximately 250 to 350, that patients develop symptoms of excessive thirst, urination. The problem is, to keep your blood sugar under good control requires a lot of effort, and the longer you have the disease, the more work it requires.

PL: And do people not want to do it, or is it just tough because, you know, let's say you're diagnosed three years ago, it's fine, but when you get into the 23 or 33, it just isn't (Overlap)?

HLK: Diabetes is a very difficult disease because every time a person takes food in their mouth, or performs some physical activity, or does something out of the ordinary, it can affect their blood sugar. So this is a disease that people have to live with day in and day out. If they want to do it correctly, they've got to prick their finger and check their blood almost before every meal, so that they understand what the effect of the meal and exercise is on their

blood sugar. This requires a lot of work, and is expensive in many cases.

PL: So is it that people aren't testing, or they're not eating right or not exercising? What is the biggest failure here?

HLK: Well, there are many barriers ... we like the term, barriers to adherence. There are many barriers to adherence for people. Some people don't like to check their blood. Some people are afraid of the medications or the insulin therapy. People have a mistaken belief that when people need insulin therapy, the insulin therapy is bad for them, because they remember their aunt or uncle who, when they went on insulin therapy, lost their leg or became blind. Unfortunately, back then, by the time people went on insulin therapy, they had severe complications, and it was just a natural progression of the disease. So fear or difficulty adhering to a correct diet. As we get older, it's more difficult to be physically active. There are a lot of barriers to adherence.

PL: How about emotional barriers?

HLK: Absolutely. Emotional barriers can be very difficult. People are fearful. They're fearful of the future, and they're afraid that they may fail. So they'd rather not do anything than fail at what they're doing.

PL: I want to talk about the Diabetes Make-over. What is it? The time frame, the purpose, how it works?

HLK: Diabetes Make-over is a rapid change in the way people look at their disease. Unfortunately, as we previously discussed, there are several barriers to adherence. People don't have the correct information in order to check their blood sugars, in order to take the right medication, and in order to eat the correct diet. So in a single, one weekend period, we try to bring our Diabetes

Make-over team, which consists of an endocrinologist, a diabetes nurse educator, a nutritionist, an exercise physiologist, and an organizer. As a team, we work to, very aggressively and rapidly, give the information to the patient that they can then use to help themselves control their blood sugar.

(Background Conversation)

PL: Let me just ask you to go back, and give me the overview. Diabetes Make-over is a way to ...

HLK: The Diabetes Make-over is a one weekend-approach to give diabetic individuals the tools which they need to control their blood sugar. It consists of a program of an endocrinologist to help with medications, a nurse educator to go over adherence, a dietician to help with nutritional counseling, an exercise physiologist to help with physical activity, and an organizer to help them incorporate all of these changes into their life style. And hopefully, after two months, we see in many cases dramatic improvement in blood sugar control.

PL: I'm a little confused. It's a weekend? I thought it was like an eight to eleven ...

HLK: Well, we start ... we bring all the participants to one location ... it's actually my office ... for a weekend. And all of us are here. And then we teach. We first, in an intake, obtain the information about each individual, see exactly what their issues are, and then we get together, devise a treatment plan, and then teach each of the individuals on a one-to-one basis what are the tools necessary.

And then we follow up on a weekly basis, asking them to send us blood sugar reports, and dealing with them either through email or phone, and following up. And in two months,

we repeat some of the blood work to see if the average blood sugar has improved.

PL: And the groups that you've done so far, how successful has it been, and how do you measure that success?

HLK: Well, there is some variability. Some people have had dramatic improvements in blood sugars. And we measure that by a blood test called the A1C test. And this is a test of your average blood sugar for the preceding three months. So if someone comes into the program and their average blood sugar is ten percent, that corresponds to an average blood sugar of 240. Usually after two months in the program, the average blood sugar may drop down to 140 or a Hemoglobin A1C of seven.

PL: Okay. And what is your role?

HLK: I am the endocrinologist, and as the medical doctor, I usually work with which patient's medications, what should be changed, if we need to change insulin therapy, or combine medical therapy.

PL: And how much insulin are these people ... and how often are they taking it? Are they injecting themselves? Are they using the pump? Can you just talk about it?

HLK: Well, we have a whole variety. Diabetes is really separated into type one and type two. Type one diabetes, the old term that used to be "juvenile diabetes," those individuals don't make any of their own insulin and must take insulin via either injections or through an insulin pump.

Type two diabetes, what we used to call "adult onset diabetes," or now we call it "insulin-resistant diabetes," individuals can be managed with a combination of diet, exercise, or medications, and in approximately half the time, insulin therapy. And

usually insulin pump therapy is reserved for people with type one diabetes, even though they may be either children or adults. It is a very useful form of managing diabetes, and allows more flexibility than the usual treatment with insulin injections.

PL: Let me go back to the make-over for a second. So we're looking at eight to eleven weeks duration. What is the goal of the make-over?

HLK: The goal of the make-over is to get patients to feel better about themselves, to improve blood sugar control, and to improve the quality of their life. And usually we try to do that by incorporating changes in diet, physical activity, medications, and showing them how they can incorporate these changes without it being too stressful, without having the diabetes control their life, but having them control their diabetes, and incorporate it as part of their activities of daily living.

PL: How hard is it for people to stick to this plan over the eight to eleven weeks?

HLK: Well, we find that if we can motivate patients and we have good follow-up, they're able to maintain or even continue to improve. Certain individuals have more problems than others, but that's what the encouragement ... we also have weekly telephone calls for the patients to encourage each other to comply or adhere to the program.

PL: Okay, so here's the eight to eleven weeks where they have this whole team working with them. What happens after that?

HLK: Well, what we've been doing is many of these patients have their own physicians, and we send a concept report back to them. And we also encourage them to find health care

providers in their own area who can follow up; that is, have nutritionists and have exercise physiologists in their own region where they can continue this plan.

As part of our project here with BD, we have been following up with them. One of our members usually, and our nutritionist has been doing telephone calls and obtaining blood sugar logs on a routine basis, just to make sure, if they need any help, they're able to continue the program.

PL: Okay. Who is this plan appropriate for?

HLK: This plan is appropriate for all individuals who are not doing as well as they should be, for people who are diabetic patients and who want to improve themselves. It is very difficult to get someone to change if they're not interested in changing. And that's why this is really very good for people who are having problems that have good spousal support and family support in which to encourage them to make a change.

PL: Okay. I want to get back just to both exercise and nutrition. What are people routinely doing wrong, and how does the nutritionist try to help?

HLK: Okay. Well, unfortunately, when you become diabetic, you literally have to develop your own degree of nutrition, because every individual responds to food a little bit differently. So when someone eats a baked potato, that individual has to learn how that affects his or her blood sugar. When someone eats pasta, some people get a rather rapid rise in blood sugar. But other individuals, the pasta takes a long time to be digested, and the blood sugar may go up four or six hours later. And that's a very individual response.

And the nutritionist works with each of our participants to determine what their sensitivity to food is, what their

sensitivity to insulin, how much insulin or other medication they may take to help metabolize the food and keep their blood sugar under control.

Exercise is a very important component of the treatment plan. Exercise, first off, maintains and improves your muscle mass, lowers blood sugar directly by telling the muscles to use up the sugar, and thirdly, makes the body more sensitive to its own insulin in the long run. And these are all very important factors for maintaining good blood sugar control.

PL: One last question. Myths. Are there persistent myths out there about diabetes, and what is the biggest one?

HLK: Okay, there are many myths about diabetes. One of them is that sugar causes diabetes. Eating too much sugar causes diabetes. That's not true. Carbohydrate is one of the three components of food ... carbohydrate, fat and protein. And sugar is one of the carbohydrates. So we must eat some sugar in our diet. But taking too much sugar by itself does not cause diabetes. Another myth is that insulin is bad for you. As I said earlier, there are many people who believe that once they, quote, need to go on insulin, they're going to do poorly. And that's not the case. Insulin is just another way of controlling blood sugar, and it's an effective way of controlling blood sugar, and by itself does not signify that things are doing poorly.