

TRANSCRIPT EP4

What Do I Need to Know About Prediabetes?

[00:00:00] **Dr Darren Green:** Hello and thanks for joining us on this mini-series of The Health Wrap, powered by Mediclinic. I'm Dr Darren Green, your host, and I'm looking forward to sharing today's episode with you. This diabetes series is for anyone whose life is impacted by diabetes. Type 1, type 2, gestational, and today, prediabetes .

[00:00:23] **Dr Darren Green:** In future episodes, we're also going to explore the sometimes difficult topic of children and diabetes, as well as the mental health challenges of living with this illness. Our expert doctors have been unpacking some of these topics for us. And today we're turning the focus to diabetes. To prediabetes .

[00:00:42] **Dr Darren Green:** Let me just remind you that the views shared by any of our guests in this podcast may not necessarily reflect the views of Mediclinic. So please consult a medical professional if you have any concerns and particularly if you want to change your medication in any way. So, prediabetes . What is it exactly?

[00:01:03] **Dr Darren Green:** The National Institutes of Health describe prediabetes as raised blood glucose that is not high enough to treat diabetes. to be classified as type two diabetes. It usually occurs in those who have had some insulin resistance or who aren't making enough insulin to keep blood glucose within the normal range.

[00:01:24] **Dr Darren Green:** So what happens is that when you don't have enough insulin, the excess glucose stays in your blood rather than entering your cells. We mentioned insulin resistance when we were talking about gestational diabetes, but it's helpful to go over it again. So insulin is a hormone that the pancreas makes, and it acts like a key to let blood glucose into your cells, to use as energy.

[00:01:51] **Dr Darren Green:** When your body's cells are using insulin less effectively, it is known as insulin resistance. This increases your body's need for more insulin. Your blood glucose levels can stay in the healthy range as long as your pancreas can make enough insulin. prediabetes is a very common condition in South Africa.

[00:02:13] **Dr Darren Green:** The South African Demographic and Health Survey reported that 64 percent of women and 66 percent of men are in the prediabetes range. This means that if they don't change their lifestyle by losing weight if they need to, eating healthy food and exercise, they will develop type 2 diabetes. So let's hear from Tracy Williams what it was like when she recently found out that she's pre-diabetic.

[00:02:44] **Tracey Williams:** About a year and a half ago, my family and I moved to Atlanta. And obviously with this new move meant the need for doctors and dentists and all the other people that you may need. I asked around and this one particular doctor came highly recommended. So I went to visit her. She took blood samples, she asked me a lot of questions, she was incredibly thorough.

[00:03:05] **Tracey Williams:** In our follow-up appointment, she shared my results. Some of those results were not a surprise to me. I knew that I had Hashimoto's disease anyway. Autoimmune diseases run in my family. My youngest sister has rheumatoid arthritis. And my second oldest sister is pre-diabetic. So I just assumed that Hashimoto's was my thing and they had their things.

[00:03:26] **Tracey Williams:** So when the results came back that I too was diabetic, I was a little bit surprised by that. I'm 42, but I live a very healthy lifestyle. I exercise and I eat well. So to get that diagnosis was a bit of a shock to me. But at the end of the day, I realized that this diagnosis helps me understand my body a little bit better.

[00:03:46] **Tracey Williams:** I understand now that when I eat something sugary, that is why I get tired, but also helps me think long-term, like the stuff that I'm putting in my body and the way that I'm living now is going to determine whether How my body's going to react to sugar and those sorts of things in the future.

[00:04:03] **D.r Darren Green:** So a quick word on the term prediabetes .

[00:04:06] **Dr Darren Green:** Some doctors prefer to say at risk of developing type two diabetes, because that is a more accurate term, but they are often used interchangeably. Now let's meet Dr Lior Sareli, who's joining us today to talk about prediabetes , particularly in South Africa. Dr Lior Sareli, works from Mediclinic Cape Gate in Cape Town.

[00:04:29] **Dr Darren Green:** Welcome, Doc.

[00:04:31] **Dr Lior Sareli:** Thanks, Darren. I'm very excited to be here.

[00:04:33] **Dr Darren Green:** We are very interested in getting to know a little bit about you. Tell us a little bit about your, your day to day life and what it entails.

[00:04:41] **Dr Lior Sareli:** So I suppose we can start off with my career in private practice, which started in 2010 when Cape Gate Mediclinic opened up, I specialized in Stellenbosch University, my internal medicine degree.

[00:04:54] **Dr Lior Sareli:** And one of my last. departments that I went through was endocrinology, which is where I found my love for diabetes. So being a specialist physician, you can kind of gravitate to all different parts of adult medicine. And I find myself very much in the arena of diabetes and cardiovascular work, which hopefully in the talk, we'll learn that they almost go hand in hand.

[00:05:17] **Dr Lior Sareli:** And my day basically consists of making sure that my in-hospital patients are all well, and then we move over to the office where we see the more routine chronic patients. A lot of those, uh, do fall into a diabetic clinic that I run with, uh, Discovery Health and with some other medical aids, obviously supporting the rest of my colleagues in the hospital.

[00:05:39] **Dr Darren Green:** Then you go home from there. Then you've gotta look after your family, don't you?

[00:05:43] **Dr Lior Sareli:** That is correct. But, um, yeah, we throw in a little bit of leisure time. The last thing I've kind of got into is a paddle tennis that keeps me hopefully fit enough and away from prediabetes, which interestingly enough, I've actually dabbled with, so a little bit of a personal journey as well.

[00:06:00] **Dr Darren Green:** So I think you've very, very much suitably qualified to engage us on this exciting topic, and certainly a life-changing topic, as we delve a little bit deeper. And we've just heard about just how many South Africans fall into this prediabetes range. So what advice would you offer someone who's been told that they are at risk of developing type 2 diabetes?

[00:06:23] **Dr Lior Sareli:** In your introduction, you very much pointed to the fact that sometimes people call it prediabetes and then potentially at risk. I don't like that differentiation from the point of view that then you fall into a pre-diabetic category, it's more than just at risk of getting diabetes. It's actually at that point in time at risk of developing cardiovascular complications, because we see, even if you have not developed diabetes as we diagnose it, and there's different ways of diagnosing diabetes, but you fall into the category of prediabetes compared to the average person on the street, you have a higher risk of having a stroke and a heart attack.

[00:07:06] **Dr Lior Sareli:** So calling it just at risk of developing diabetes, I think. Almost puts a false sense of security that you are not there yet. You are not at risk. Yes. Yes. And it doesn't highlight to the patient that something needs to be done now more than just noting that you might be at risk. So it's very important to actually call it prediabetes because I think that has more weight for the average person in the street to say, wait a minute.

[00:07:30] **Dr Darren Green:** Makes sense.

[00:07:31] **Dr Lior Sareli:** I know diabetes associated with a lot of these horrible complications. I'm going to do something about it now.

[00:07:37] **Dr Darren Green:** Absolutely, that makes sense. So, if we look at prediabetes as an entity, are there early signs, middle signs, late signs? How do we know that someone is falling into that category without testing in the first place?

[00:07:51] **Dr Lior Sareli:** So, the symptoms of prediabetes actually don't exist. You do not have any symptoms when you're prediabetic, very much like the other cardiovascular risk factors, which are high blood pressure, cholesterol, smoking, and obviously diabetes. They've been nicknamed the silent killers for a good reason because you do not have a lot of symptoms.

[00:08:14] **Dr Lior Sareli:** So with prediabetes, I wouldn't call it a symptom, but a sign would obviously be people who are overweight. So we talk about your body mass index. We also talk about a sedentary lifestyle. And then obviously, if you've got a family history of diabetes, you would be more prone to it. But none of those are symptoms.

[00:08:33] **Dr Lior Sareli:** These are just things that we look at in the profile of a patient when we suggest whether they should be tested or not. The people who should be tested is obviously

someone who is obese or has a higher BMI than 25, which is actually setting the bar relatively low. Anyone who's had gestational diabetes, we haven't touched on that, but gestational diabetes means that you develop diabetes when you're pregnant.

[00:08:59] **Dr Lior Sareli:** So obviously. Yes. relevant for females. And then once you hit the age of 35, you should be tested when you go for regular check-ups. Yes. So the at-risk group would be obesity, sedentary lifestyle, family history, and previous gestational diabetes. So these are the people you would want to check to see if they are pre-diabetic.

[00:09:20] **Dr Darren Green:** Fantastic. That makes complete sense. But are there any immediate changes that people can make to become less insulin-resistant?

[00:09:29] **Dr Lior Sareli:** Yes, of course. So when we think about it, well, depending on which theology you believe in, let's call it two, three thousand years ago, our bodies were not designed to necessarily sit behind a desk, looking at a computer, not moving, then moving over to Woolies and taking ready-made food out of a packet and putting it into our mouth.

[00:09:49] **Dr Darren Green:** Yeah.

[00:09:50] **Dr Lior Sareli:** We were hunters and we were gatherers. We used to go and hunt the woolly mammoth and that lifestyle is very much changed because our bodies were not designed to do so. We see that by not moving a lot, we are basically not expending as much energy as we are putting in with kilojoules of food. And that energy, our body doesn't waste.

[00:10:10] **Dr Lior Sareli:** It doesn't throw it away. It stores it in our liver. It stores it in our muscle. And more importantly, it creates fat cells, which are just a form of stored energy. Those fat cells tend to be the most insulin-resistant. So that's why we see that, that diabetes or prediabetes and insulin resistance is associated with obesity.

[00:10:32] **Dr Lior Sareli:** So, we need to basically reverse that physiology. We need to go back to two, 3000 years ago, when we were hunting and gathering the woolly mammoth, we were not just sitting, we were actually exercising and eating non-refined foods that our body tolerated more. Lifestyle changes is the first thing we tell our patients in consists of an appropriate diet for a diabetic.

[00:10:54] **Dr Lior Sareli:** So a healthy diet. And once again, I'm going to put in for a diabetic into that sentence. One would think that. Uh, vegetables and fruit are fantastic because they're healthy and yes, they are, but some fruits and some vegetables are packed with carbohydrates and carbohydrates push our pancreas into overdrive, especially when there's insulin resistance.

[00:11:15] **Dr Lior Sareli:** So we have to make sure that when we talk about a healthy diet, we understand which fruits are good and which vegetables are good and not just a healthy diet for the average person. And then with regards to exercise, the recommendation says about 150 minutes per week. So if we split that up, let's say into three sessions of less than an hour, where I tell my patients to break a sweat, everybody's got their own pace and their own intensity of work.

[00:11:40] **Dr Lior Sareli:** But I think if you break a sweat, that would be sufficient exercise. And if you diet appropriately, and you're going to exercise three times a day, the net result is going to be

weight loss. And we see that once you put all those three together, it reverses prediabetes and potentially can get you into diabetic remission as well, if you've crossed the border to full on diabetes.

[00:12:03] **Dr Darren Green:** So clearly from what you've said, consistency is key and making and cultivating healthy habits basically around food choices as well as activity levels and consistency in those fields are what can flip it around. So how likely is it that prediabetes will develop into type 2 diabetes if no changes are made to your lifestyle, diet, weight and exercise?

[00:12:28] **Dr Lior Sareli:** Well, depending on the age, I think that it's, uh, an inevitable progression. So prediabetes and early diabetes, I treat as the same. Once we notice that your pancreas is working overtime and there's a form of insulin resistance, which forces the pancreas to produce more insulin in order to get the sugar out of the bloodstream and into the cells.

[00:12:53] **Dr Lior Sareli:** We realize that there is a weakness in your system. And that weakness is always going to be there. So it's almost like an escalator that you've put your foot on, and now you're on that escalator. It's only halfway up that escalator that us doctors are going to call you diabetic when some of your values, for example, your fasting sugar level goes above four, or we've got a test which measures the three-month average of what your sugar level is.

[00:13:20] **Dr Lior Sareli:** And we can use that as a diagnosis for diabetes. And if those values are in the diabetic range, we'll then call you diabetic. So for example, this three-month blood test is called the HBA1C. If your value is sitting at 6.5. It's diagnostic of diabetes, but let's say I've got a patient in front of me and their HBA1C sitting at 6.4. My advice is going to be exactly the same. If you had 5, you are on that escalator. We are going to move you up and down on that escalator, but unfortunately, you're never going to leave that escalator. You've always got to treat your body as if you have diabetes or a problem with controlling sugar. Um, and it's always going to be lifestyle.

[00:14:04] **Dr Lior Sareli:** Those three things that we mentioned, appropriate diet, exercise, and weight loss, it's always important for us to always think like a diabetic once you have put your foot onto that escalator.

[00:14:18] **Dr Darren Green:** And what about people that don't want to put in the hard yards for lifestyle modification, and that just want a wonder medication or a pill to prevent them becoming, you know, a worse off diabetic?

[00:14:31] **Dr Lior Sareli:** So there are two medications that at the moment are ticked for pre diabetes. The one is metformin. Metformin is been around for a good 60 or 70 years. We use it as the cornerstone of diabetic care once you've crossed the line to diabetes. And the way that it works is that it sensitizes the cells to the effect of insulin.

[00:14:52] **Dr Lior Sareli:** So we call it an insulin sensitizer, specifically tackling insulin resistance. The other medication is called semi-glutide and semi-glutide is a relatively new type of drug. And what that does is that it mimics a hormone that is naturally produced by your small intestines. When there's food in your small intestines, it is about 80 percent absorbed and imminently going to be absorbed through your blood.

[00:15:19] **Dr Lior Sareli:** stream and raise your sugar levels. So your intestine starts signalling to the body to start getting ready. This particular hormone called GLP causes the pancreas to push

out a little bit more insulin, talks to your liver and says, liver, you keep sugar for me. I don't need it at the moment, but very importantly, it talks to your brain and says, brain, we already have food in our body, in our gastrointestinal tract.

[00:15:47] **Dr Lior Sareli:** We can stop eating. The net effect of all those effects is not only to lower your sugar level, but what it does is that it takes people's appetite away. And when you take your appetite away, obviously your diet gets better and then weight loss comes in. Once you start losing weight and you start getting rid of the fat cells that are most resistant to insulin, we see that we start reversing the bad physiology puts you into prediabetes .

[00:16:15] **Dr Lior Sareli:** So that's an excellent medication. It's as an injectable product. We give it once a week, and those are the two main medications that have been approved at this point in time to treat prediabetes on top of lifestyle, always going to iterate on top of lifestyle changes.

[00:16:33] **Dr Darren Green:** In just a moment, we'll be back with Dr Sareli. But first I wanted to remind you about the Mediclinic It's available now to any Mediclinic Prime members free of charge. We all know those moments when we have a medical question and need an answer right now. You can save this number on your phone and have the Mediclinic 27/7 helpline on speed dial.

[00:16:57] **Dr Darren Green:** The number is 0860 233 333. Now let's go back to Dr Sareli to find out more about prediabetes . and the risk of developing type 2 diabetes. When we're talking about making the necessary lifestyle changes, Doc, eating a healthier diet, losing weight if you need to, starting an exercise routine that's regular, one of the questions I feel we have to ask at this stage is where you're accessing your nutritional information from.

[00:17:31] **Dr Darren Green:** So there's so many fad diets out there and so many influences and perception leaders saying that they've found the one magic route to weight loss. So what do you advise when it comes to making the necessary lifestyle changes and using or considering some of these public profile perceptions?

[00:17:51] **Dr Lior Sareli:** Yes, that is a very interesting question.

[00:17:53] **Dr Lior Sareli:** I think that in life people respond differently. Two different diets. There's obviously a basic principle that one needs to follow, but it also has to be something that is acceptable to a patient. So with all my diabetics, you know, sitting in front of them and telling them, oh, you can eat only so many kilojoules and you have to eat this food and you have to follow this particular diet is sometimes very tough.

[00:18:20] **Dr Lior Sareli:** Difficult to execute human beings are creatures of comfort and to a degree we like certain foods. And even if it is to our own detriment, we will still continue to act in a way that is acceptable to us. So the principles are that we need to basically reduce the carbohydrate intake. The carbs are your enemies.

[00:18:40] **Dr Lior Sareli:** They're the ones who are going to push up the most. So when you're looking at the different diets, you need to make sure that there's a low-carb diet, potentially a carb-free diet. That is the basis of what you should be following. I always send my patients to a dietitian. The dietitians have got all the latest information and potentially can offer the patient different options.

[00:19:04] **Dr Lior Sareli:** I think sticking to only one meal plan is a little bit unrealistic to expect people to follow. So I think if the concepts and the basic principles of what is going to push your sugar up or not is understood, then the decision-making about what you're going to put on your plate can be balanced. So for example, if you're going to eat a carb, that's rich with sugar, the rest of your plate, you can make good decisions for.

[00:19:29] **Dr Lior Sareli:** So you don't feel like you starving yourself. You don't feel like you're punishing yourself with a terrible diet and you can't wait for it to be over. You are just making very smart decisions because if you got one that is weighing a little bit heavy on the carbs, you make a smart decision with the rest of your plate.

[00:19:45] **Dr Lior Sareli:** So I think. Putting the concept across is more important than just sticking to a specific diet or a meal plan. And for me, always best recruiting a dietitian. Well, they're all very, very highly trained. They understand physiology. Diabetes is their bread and butter. So I would really stay away from kind of, Online Tik Tok, Instagram diets, but rather go sit in front of someone, a human being who can understand what you like and how we can potentially offer you food that you can accept and you can continue eating as a routine and not just as a diet. This has to be a lifestyle change.

[00:20:23] **Dr Darren Green:** Absolutely. And obviously matching it to your preferences within your community, your culture, your palette that you've grown up with makes complete sense. I suppose one of the issues is also that we don't often focus on the power of feeling healthy. We focus very often on the outer appearance, how we look and we stop there.

[00:20:43] **Dr Darren Green:** And some people have no quips in telling you how you look since you've become a dad or, or, uh, or postpartum having had kids. But we, as we talking about. Good health. We actually mean having energy, feeling well, aging in a healthy way and not prematurely, but rebound diets aren't going to achieve all of that.

[00:21:03] **Dr Darren Green:** So what's your definition of being healthy?

[00:21:07] **Dr Lior Sareli:** So definition of being healthy, I think is essentially how you feeling, first of all, you want to feel healthy, IE have enough energy during the day, have enough clarity, not run out of steam. I think exercise is critical at the beginning. If you are not used to the exercise, it feels like this is something that is torturous that you'll never get the hang of, but within a few weeks, your body starts almost craving that exercise and that exertion and that sweat.

[00:21:36] **Dr Lior Sareli:** So for people who are starting out, I would really encourage them. Just to push through the first two, three weeks of the exercise. And then it starts kind of feeding back positively. And then you start needing that exercise more than it needs you.

[00:21:50] **Dr Lior Sareli:** And then definitely, you know, appropriate diets. Sometimes we sit in front of a plate and we feel full, but there's still some food on the table and we feel obliged to finish it and then.

[00:22:00] **Dr Lior Sareli:** You go for that second plate. And I think that's obviously a mistake. Um, so I think making sure that you do follow up with your doctor, let's say once a year, they can look at your different variables with regards to your blood pressure, your sugar level, your cholesterol, and just making sure that all that is in place.

[00:22:18] **Dr Lior Sareli:** And for me, that is the best way of going forward and essentially feeling healthy. I think that very important to talk about some of the habits that we have. Cause that definitely plays into diabetes and cardiovascular risk. So it's okay to have a little bit of leisure time, i.e. alcohol is something that one can incorporate into a diet, but we need to limit it.

[00:22:38] **Dr Lior Sareli:** And it's all about the amounts of alcohol. So for males up to two units, a unit being one beer, one glass of wine. Or one tot of liquor is acceptable. And with females, it would be one. So alcohol is not a complete no, no, but we shouldn't do it in excess. And then smoking is another big habit that we all have.

[00:22:57] **Dr Lior Sareli:** And that is a big no, no, just across the board that unfortunately increases your cardiovascular risk. It also increases your chance of cancer, and then it also obviously can be very detrimental to the health of your lungs giving you emphysema. So avoiding those kinds of bad habits is also something that would probably give you longevity and better health.

[00:23:19] **Dr Darren Green:** Oh, fantastic. I think in your experience, you know, when you the, the guy breaking bad news to your patients, well, let's say they've had one of these tests, like you've mentioned, let's take the three-month average test that gives you a, an HBA1C reading. I think you mentioned about 6.4, which is just under the cut-off value for being diagnostic of diabetes.

[00:23:41] **Dr Darren Green:** When you encounter a patient like that, often when you give them the news, they're quite deflated and shocked. I mean, how do you change that and reframe prediabetes for someone in, you know, in that predicament? How do you handle them in your practice?

[00:23:56] **Dr Lior Sareli:** So I think that you can always turn it around. And there's that saying, when God closes the door, he opens the window.

[00:24:03] **Dr Lior Sareli:** And I find that to be very, very true. I think that despite having a new diagnosis and something to potentially weigh you down, it's also potentially an opportunity to now, address it and revise your lifestyle. I'm going to throw in the story here where being a doctor to a degree, a diabetologist, or at least a specialist physician with an interest in diabetes, I encounter a lot of paediatric diabetic patients.

[00:24:29] **Dr Lior Sareli:** And here you have a 14, 15-year-old child who's all of a sudden diabetic, nothing to do with anything with their lifestyle. And you have to explain to them why all of a sudden this has landed in their lap. And the way that I normally paint that picture is I say, look, life is going to throw obstacles and challenges at us all the time.

[00:24:47] **Dr Lior Sareli:** And the universe is not going to give you something that it doesn't feel that you can learn from or that you can grow from and that you can tackle. So potentially at the age of 40, when you're sitting in front of me and your HBA1 is 6.4, you were heading straight for. A cardiovascular event, like a stroke and a heart attack at the age of 50, but now all of a sudden we have an opportunity to address it and say, wait a minute, I need to really revise my lifestyle and remediate what I'm doing because I'm not heading in the right direction.

[00:25:17] **Dr Lior Sareli:** So here's an opportunity to make a change. And that change can only be a positive one, because if you are now going to start thinking about your health, exercising

more, eating appropriately, losing weight, you're going to start feeling better. You're going to be rewarded by that. So sometimes finding out that you're doing badly in one arena just gives you that opportunity to change things around and improve your life.

[00:25:41] **Dr Lior Sareli:** So you can always take that spin on it and say, look, Where we are is where we are. We can't change the past, but we can definitely change the future to improve your quality of life. So it's not always all bad. Sometimes it's an opportunity to change that bad into good.

[00:25:57] **Dr Darren Green:** Dr Sareli, thank you so much for those insights.

[00:26:00] **Dr Darren Green:** And just a reminder to the listeners that we'll be sharing more information about all the things we've discussed today in the show notes, as well as the links to resources that you might find very helpful. Dr Sareli, thanks for making this topic that can be quite daunting and threatening, making it come alive and making it approachable and understandable for our listeners.

[00:26:22] **Dr Darren Green:** We appreciate your time and your expertise.

[00:26:25] **Dr Lior Sareli:** Thank you very much for having me on the program. I think education is critical specifically for this topic because as we've learned to a degree, These things are reversible. So spreading the word and keeping everyone out there healthy, unfortunately, might not be beneficial to my practice, but to the overall humanity.

[00:26:43] **Dr Lior Sareli:** And that's always our goal. So it's an absolute pleasure being with you guys.

[00:26:47] **Dr Darren Green:** Thank you so much to Dr Sareli for giving us so much of his time and expertise today. It's so helpful to understand prediabetes and what it means for many South Africans who are living through it at the moment. Although a prediabetes diagnosis might seem scary, it is actually an opportunity to make those lifestyle changes we should all be making.

[00:27:11] **Dr Darren Green:** We all know we need to move our bodies every day, eat more green leafy vegetables. We all know we need to cut out refined carbohydrates like sugar, and fast food, white bread, and drink more water. and give up smoking. We all know when we need to lose weight, but perhaps this is an extra bit of motivation to make these changes now when your body has given you a reminder before prediabetes turns into type 2 diabetes.

[00:27:44] **Dr Darren Green:** Something to think about from me, your host, Dr Darren Green. That's it for this episode of the Health Wrap Podcast powered by Mediclinic. And a reminder to subscribe to our podcast channel and sign up for the Mediclinic Prime newsletter, full of helpful health information. The link's in the show notes. I'll see you next time.