

TRANSCRIPT EP5

How to Support Kids with Diabetes

[00:00:00] **Dr Darren Green:** Welcome to another episode of this mini-series of The Health Wrap, powered by Mediclinic. I'm Dr Darren Green, your host, and today's episode is such an important one. We're looking at diabetes in young kids. Symptoms to look out for. How to support a child and a family with type 1 diabetes and the growing numbers of children developing type 2 diabetes.

[00:00:27] **Dr Darren Green:** This series is for anyone whose life is impacted by diabetes of any kind. This is our second to last episode. We've already covered type 1 and type 2 diabetes gestational diabetes and pre-diabetes. Our last episode will be a deep dive into mental health and diabetes and how to support those we love who are living with this chronic condition.

[00:00:53] **Dr Darren Green:** As always, we have an expert guest in studio with us today to unpack all the necessary details. So just a reminder 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 concerns, and particularly if you want to change your medication in any way.

[00:01:17] **Dr Darren Green:** When we talk about diabetes in young kids, we are largely talking about type 1 diabetes. Just a reminder that there are two main types of diabetes, type 1 and type 2. Type 1 is an autoimmune condition that cannot be prevented. It's often diagnosed in families with no other family history of type 1 diabetes, and it can be a sudden diagnosis.

[00:01:41] **Dr Darren Green:** Type 2 diabetes, on the other hand, is hereditary and can run in families. It's often called a lifestyle condition because it can be triggered by carrying extra weight, eating the wrong kinds of food and not exercising enough. But there is also a strong hereditary component. So if diagnosed early enough, type 2 diabetes can be prevented.

[00:02:04] **Dr Darren Green:** It is possible for type 2 diabetes to be diagnosed in children and, in fact, because kids are living more sedentary lives, type 2 is becoming more common in children. But as the American Diabetes Association reports, youth onset type 2 diabetes is still relatively rare. Now that you know the difference between type 1 and type 2, let's turn back to type 1 diabetes in children. There are obviously added layers of complication, because while all type 1s have to inject before every meal, check their blood glucose at least five times a day and eat a healthy, balanced diet. That becomes a lot easier. Trickier when you're talking about toddlers or even worse, teenagers but therefore we dive into that.

[00:02:51] **Dr Darren Green:** So let's look at the symptoms of type one diabetes. The International Type one diabetes index estimates that a shocking 12.9% of children who develop Type one diabetes in South Africa are never diagnosed. So we need to be talking about this far more often. There are five common symptoms of diabetes.

[00:03:14] **Dr Darren Green:** Needing to urinate a lot, especially at night. Thirst, hunger, weight loss, and exhaustion. As you can imagine, they are easy symptoms to miss. So, what you want to

look out for, for your child is going to the toilet more often than usual. Particularly, getting up at night to urinate, or even bed wetting, if it wasn't previously a problem.

[00:03:38] **Dr Darren Green:** In younger children, this might mean heavier nappies or needing night nappies when they had previously grown out of them. So, along with excess urination comes insatiable thirst. Thirsty all the time, gulping down drinks and not able to sleep. A warning sign of this illness in children is always if they feel more tired than usual.

[00:04:03] **Dr Darren Green:** Generally less energy, not able to play sports like before, wanting to lie down all the time. And finally, if you notice your child has lost weight or is looking thinner than usual, that's a warning sign. So, the symptoms of type 1 diabetes can come on very quickly, in days or weeks, and if you notice any of these, take your child to the doctor as soon as possible.

[00:04:28] **Dr Darren Green:** Matthew Gair is no stranger to type 1 diabetes, now that his son Jude has been living with it for the last three years. Let's hear his perspective.

[00:04:40] **Matthew Gair:** Our child was diagnosed when he was three, and there's no way that a three-year-old has the capacity or should have to carry this sort of burden. So As parents if you can share that burden together, to take it away from the child for a time before they're old enough to carry it, then I think that makes life easier for everybody from one week to another one day to another you can be doing exactly the same thing one day you'll be on top of diabetes and sugars will be in control and you'll think you're on top of the world the next day the next week you'll do exactly the same thing and You'll be unable to control them So you've got to go easy on yourself, there are so many external factors that play into the management of sugar from whether he's growing, or he's got a cold, or he ran a lot at school, or you ate something that you weren't prepared for, or you know, there's a whole bunch of things out of your control and you've just got to Go easy on yourself and go easy on him and realize that one day you might get it right, one day you might get it wrong, but in the end you're working towards managing it and that's what it is. It's managing it, it's not controlling it.

[00:05:47] **Dr Darren Green:** We're so lucky to be joined in studio today by paediatrician, Dr Lerato Motjale. Dr Motjale works from Mediclinic Nelsprey and has a special interest in managing diabetic children. So good to have you with us, doc. Thank you. Thank you for the warm welcome in studio.

[00:06:06] **Dr Darren Green:** It's so good to have you with us. I think we can kick off by just getting an idea what led you to this field of speciality in medicine.

[00:06:14] **Dr Lerato Motjale:** Thank you for the warm welcome again. I'm a general paediatrician based in the public and the private health sector in Nalesprate. So my interest in managing children with diabetes blossomed from the growing need to be able to manage these children in a small town like Nelspruit.

[00:06:34] **Dr Lerato Motjale:** There is an increase in the number of children that are being diagnosed with type 1 diabetes mellitus, as we've mentioned for your time. So general paediatricians, we need to empower ourselves with managing these children under the supervision of a paediatric endocrinologist. So we have the unwavering support of our endocrinologist from Joburg.

[00:06:59] **Dr Lerato Motjale:** We have Dr Casas, who is in Stavika Academic Hospital, as well as Dr Chiba, who is in private practice in Joburg. So I will also just a special mention to Dr Maran and also Prof. Siegel, who are pioneers in educating in diabetes.

[00:07:17] **Dr Darren Green:** Well, that's fantastic. Well, I'm really, really excited to have a backup and credo of people that have supported you and got you as well into this magnificent position of helping parents and children.

[00:07:29] **Dr Darren Green:** So that's what today's all about. And you know, many parents with children have been diagnosed with type one diabetes. They struggle with guilt. Now, I don't know if you know what I'm talking about, but the parents feel as if they did something wrong or could have prevented their children developing type one diabetes.

[00:07:47] **Dr Darren Green:** What do you say to parents that are struggling with these possible feelings of guilt?

[00:07:53] **Dr Lerato Motjale:** So the diagnosis of type 1 diabetes does cause parents to feel emotional, confused, and shocked. So you and your child did not do anything absolutely wrong to cause diabetes. It is not caused by eating or drinking too much sugar.

[00:08:11] **Dr Lerato Motjale:** And it is okay to feel angry and sad and guilty. So it is normal to have questions as to why this happened and how it will affect you and your child on a daily basis. But the emotions will ease with time as you understand the diagnosis and also how to easily manage diabetes.

[00:08:36] **Dr Darren Green:** Hmm. Well, let's take a deeper dive.

[00:08:38] **Dr Darren Green:** So explain to us, to the layman out there, what exactly causes type 1 diabetes?

[00:08:45] **Dr Lerato Motjale:** So in type 1 diabetes, there is a lack of the hormone that we call insulin, which is secreted by an organ in our body called the pancreas. This results in higher levels of sugar in our blood. So insulin controls the amount of sugar in your blood.

[00:09:04] **Dr Lerato Motjale:** You can think of it as a key to unlocking your cells to receive the glucose or the sugar and to store that glucose when you do need it later on. When you don't have insulin in your body, glucose cannot enter your cells. and there will be too much glucose in the blood, so diabetes does develop gradually.

[00:09:28] **Dr Lerato Motjale:** There will be failure of these special cells that are in the pancreas that make the insulin. That process takes over many months to even years. So a child that gets diabetes has an inherited factor, what we call a genetic predisposition that needs to be present for the process to start. So then a trigger such as a viral infection can be the outside trigger that starts the immune attack on these pancreatic beta cells.

[00:10:04] **Dr Darren Green:** Yes. Yes, indeed. Sure, that's incredible. So your body then ends up attacking its own tissue and its own cells. That's encompassed in the term autoimmune, I think, eh, that people like to understand.

[00:10:18] **Dr Lerato Motjale:** Yes, doctor. It's an autoimmune disorder.

[00:10:20] **Dr Darren Green:** Thanks for putting that in the light for us. I mean, I think that you've put it really clearly as to the key that's involved with unlocking those cells and that unfortunately the glucose is then trapped and we can't get those blood glucose levels down because the key is not there.

[00:10:37] **Dr Darren Green:** A lot of people will benefit from that explanation. I wanted to ask you, I mean, in terms of the families and the genetic component of type 1 diabetes, you said genetics does play a role?

[00:10:49] **Dr Lerato Motjale:** Yes, but type 1 diabetes, it's not inherited compared to type 2 diabetes. So you don't need a first degree family member to get type 1 diabetes.

[00:11:01] **Dr Lerato Motjale:** So in most cases, it will be a shock. Yes, where there will not be diabetes in the family and a child develops diabetes. Yes.

[00:11:11] **Dr Darren Green:** Perfect, that makes complete sense. So in your practice and in the hospital that you work at as well, in both sectors, when you're seeing young kids with diabetes, are you also seeing type 2 or predominantly type 1?

[00:11:24] **Dr Darren Green:** Because I know that you do get type 2 diabetes in children too.

[00:11:29] **Dr Lerato Motjale:** So in our practice, both in the private and public health sector, the majority of children that present to us under the age of 13 years have Type one diabetes Mellitus, but we are cognisant of the growing prevalence of type two diabetes in children due to the sedentary and urban lifestyle.

[00:11:52] **Dr Darren Green:** So we'll be back with Dr Lerato Charli in just a moment. In the meantime, have you saved the Mediclinic twenty-four-seven helpline phone number on your phone? It's available now to any Mediclinic Prime members free of charge. Get answers to any of your medical questions and make doctor's appointments with ease.

[00:12:13] **Dr Darren Green:** Simply call the Mediclinic 24/7 Helpline on 0860 233 333. And now back to Dr Lerato Motjale for the best advice on kids with diabetes and school. Dr Motjale, if we're talking about children and diabetes, one of the first questions is going to be about school. How do they manage this condition while being in school most of the day?

[00:12:41] **Dr Darren Green:** I mean, surely that can't be an easy thing. And is there a one-size-fits-all approach when it comes to checking your blood glucose and injecting the insulin at school? What do you have to tailor it for each child?

[00:12:53] **Dr Lerato Motjale:** So communicating and educating the teacher is quite an integral part of managing a child with diabetes.

[00:13:01] **Dr Lerato Motjale:** The teacher needs to be fully, fully on board. Most children are educated and comfortable with checking their glucose before a meal and also injecting the insulin themselves, but they need to be under the supervision of an adult. So younger ones will need some assistance in this regard. So depending on the age, as well as the grade and insulin regimen that the child is on, assistance from the teacher will definitely be tailored for each child.

[00:13:32] **Dr Lerato Motjale:** The teacher needs to be also knowledgeable about the danger symptoms on how low sugar presents and how to deal with the low sugar depending on the symptoms and the level of consciousness of the child.

[00:13:47] **Dr Darren Green:** Hmm, that makes complete sense. Alright, so a lot of parents, they feel fearful around the component of diabetes where your sugars dive and become very low.

[00:13:58] **Dr Darren Green:** We typically refer to them as the hypos, the low blood sugar levels. Their child's blood glucose is going really, really low at times. So, do you have any tips to make hypos less scary for firstly the patient and the child, but also for the parent?

[00:14:15] **Dr Lerato Motjale:** Hypos can be very scary, so we always incorporate a bit of humor to deal with potentially difficult situations.

[00:14:23] **Dr Lerato Motjale:** So for a hypo, you will need a cool head or two, and we always say also nerves of steel. It is rather difficult to stay calm in a situation like that, most definitely. But let those nerves of steel just kick in. So, uh, to manage a hypo quickly, you need glucose-rich foods. So a stash of super C's or jelly babies, even a juice box is kept in the school bag or a special bag that is always with the child and this bag, it must always be with the child and you must reiterate that it's for emergencies when it's school or outside the home.

[00:15:06] **Dr Lerato Motjale:** It is not a snack. It is not a snack.

[00:15:09] **Dr Darren Green:** For the rest of the family, the mood for a super C. A sweetie. That's a great bit of advice. I mean, storing something in the cubbyhole of your car is at least out of sight. So it's there when you need it and when you're in an emergency. That's a great tip. Thanks for that.

[00:15:27] **Dr Lerato Motjale:** So also of importance at home, there should be an emergency kit that consists of these sugar-rich foods and the glucagon injection. Because in case the symptoms are severe and the juice or the sweets, they are unable to assist or the child vomits everything that you can be able to inject with the glucagon injection to save your life.

[00:15:51] **Dr Lerato Motjale:** Yes.

[00:15:52] **Dr Darren Green:** And to ensure that that blood sugar level is addressed. I think a lot of people always want to know, how do I know that someone's sugar is low? I mean, how do we know? What do they complain of and what should we look out for?

[00:16:05] **Dr Lerato Motjale:** Yeah, so any blood sugar. So if you are a parent and you seem to think that the child's sugar is low and you're doing a sugar prick, any blood sugar value that is below 3.5 millimoles is a low blood sugar. But for children that are younger than 6 years old, a blood glucose level less than 4 millimoles per litre is safer to use because they sometimes are unable to verbalize their symptoms. So the child will also have physical symptoms of a low blood sugar. These symptoms can be mild to severe.

[00:16:43] **Dr Lerato Motjale:** So like being tired or weak, shaky and sweaty, pale and dizzy. They can have some confusion, abdominal pain. And the child has severe symptoms if they're unconscious or they're having any seizures. Then you really need to get to the hospital, but before that, you use your rescue medication which will be your glucagon.

[00:17:06] **Dr Darren Green:** Oh, that's great advice and great tips on what to look out for in terms of the symptoms. I think one of the most difficult things for type 1 diabetics to deal with is the fact that initially, they can sometimes feel the low sugars. In terms of being able to tell when it's low, but as time goes on, after having diabetes for many years, they might lose the ability to pick up early declines with the low sugars.

[00:17:32] **Dr Darren Green:** And that's where the, you know, the insecurity, the fear, the anxiety comes in as well. A very exciting part of this podcast is that we'll also be looking at the mental and psychological aspects of that, specifically with diabetics and how to manage that. So doc, I know that this is a difficult population and a condition to manage, especially in the acute setting as well.

[00:17:54] **Dr Darren Green:** But what are some of the key features and principles in managing children with diabetes?

[00:18:00] **Dr Lerato Motjale:** It's important that you basically want close to normal glucose control. You do not want strict glucose control in children, because again, you won't be able to verbalize some of the symptoms of hypos. So the hypos are actually worse than the hyperglycemia because your brain uses mostly glucose as the form of energy.

[00:18:23] **Dr Lerato Motjale:** So getting close to normal glycemic or glucose control, blood sugar control, it will prevent the complications of diabetes. So diabetes can damage your small vessels. It can damage your nerves as well of the vital organs from the brain to the eyes, which can eventually cause blindness. And you can also damage the vessels in the heart and that can cause heart problems, but also important kidneys and well, as well as avoiding the complications with the legs as well.

[00:19:01] **Dr Darren Green:** Okay, those...

[00:19:02] **Dr Lerato Motjale:** result in amputations of the legs.

[00:19:05] **Dr Darren Green:** Those are great. So a lot of the treatment is aimed at preventing the complications of this lifestyle disease. And we do that, obviously, by trying to maintain immaculate control or the best possible control of normal blood sugar. Is that correct? Yes, Doc. So, Doc, I know many parents, some of them detest birthday parties, but I know that youngsters and children are always invited to multiple birthday parties.

[00:19:31] **Dr Darren Green:** And I can just imagine the impact and the stress that it puts a parent who has a child with type 1 diabetes, but also the child themselves. So I mean, if we discuss that scenario, I mean, can you give us some pointers as to how to approach the scenario for both the parent and the child in this case?

[00:19:50] **Dr Lerato Motjale:** A child with diabetes is still a child, so it becomes quite a tricky situation when you're going to a birthday party.

[00:19:59] **Dr Lerato Motjale:** So I think you can bargain. So bargain with the child and try and I would say come to a conclusion where you're going to try and limit. So restriction might not work. So you can most probably try and restrict the amount of sugar or cake. Then you incorporate, or you, there are insulin requirements based on that.

[00:20:28] **Dr Lerato Motjale:** Yes, yes. The amount of insulins that it's required just to correct that. So we shall probably just give an extra unit based on what the blood sugar level is. After the party.

[00:20:42] **Dr Darren Green:** It's quite exciting. I mean, the other thing that comes to mind immediately is the fact that your body calculates its insulin needs basically on a group kind of food system.

[00:20:53] **Dr Darren Green:** In other words, if you have sugar on top of having something healthy and a normal dinnertime, a normal supper or lunch, for example, with something wholesome and nutritious, and you have that little cupcake straight afterwards. And it's calculated with that meal instead of just having an isolated high sugar, high glycemic index food.

[00:21:13] **Dr Darren Green:** Obviously your body calculates the insulin needs a little bit differently. Is that not so?

[00:21:17] **Dr Lerato Motjale:** It is so, because with the high glycemic index sugars, the sugars are released rapidly to the bloodstream as compared to the low glycemic index foods, which are slowly released into the bloodstream.

[00:21:34] **Dr Darren Green:** Beautiful. No, that makes complete sense.

[00:21:36] **Dr Lerato Motjale:** Yes. So you can basically try and correct the high sugar with the amount of insulin that you can be injecting pre-meal.

[00:21:47] **Dr Darren Green:** Great. Okay. That makes complete sense. And then the other big one, children become young adults, they go through puberty and there's all sorts of changes, emotional changes, physical changes.

[00:22:00] **Dr Darren Green:** And then, of course, all the chemical and the hormonal changes. So, maybe just shed some light on the role that the different stages of development can play in type 1 diabetics.

[00:22:12] **Dr Lerato Motjale:** Every parent's nightmare is puberty.

[00:22:21] **Dr Lerato Motjale:** So children, when they're going through the pivotal stage, their hormones play such a trick on their bodies in such a way that how they require more insulin is based on the fact that their cells start not responding to the insulin. So we sometimes have to give them oral hypoglycemic medication that stimulates their cells.

[00:22:51] **Dr Lerato Motjale:** To recognize the insulin and again, so the insulin can easily become a key to unlocking the cells. So, in a nutshell, the cells become, they do not recognize the insulin because of hormonal issues.

[00:23:07] **Dr Darren Green:** I got you. So the hormones, they affect the sensitivity of the receptors on these cells. That makes complete sense.

[00:23:14] **Dr Darren Green:** Yes,

[00:23:14] **Dr Lerato Motjale:** yes, yes.

[00:23:15] **Dr Darren Green:** Ah, so it's not just a choice that they have. There is actually a physiological basis for their angry mood swings and up and downs. Okay.

[00:23:24] **Dr Lerato Motjale:** Fortunately, they're not just acting out.

[00:23:28] **Dr Darren Green:** Well, thank you for giving us hope and giving us an explanation. So now we feel better prepared to handle our teenagers.

[00:23:35] **Dr Darren Green:** I wanted to ask you if you have any closing remarks or key points that you'd like to carry across to all the family members and parents and communities that are supporting children living with diabetes.

[00:23:47] **Dr Lerato Motjale:** You and your child are not alone in managing the condition. Even though you are doing the daily hard work in managing their blood glucose control, the diabetes team is your greatest support structure.

[00:24:02] **Dr Lerato Motjale:** So a diabetes team includes your primary doctor, the diabetes nurses, who are quite skilled and passionate about managing children with diabetes. Also, a very important part of the team is the dietician. Dieticians dealing with diabetes children have unique tact and knowledge tailored to individualized children according to their lifestyles.

[00:24:28] **Dr Lerato Motjale:** And then children and families living with diabetes, they're also encouraged to attend diabetes support groups in your hospital, at follow-up visits, or in your neighborhood as well, to encourage them to see that they are not the only ones that are affected, and to also learn the pearls of wisdom on how to live and manage diabetes.

[00:24:52] **Dr Lerato Motjale:** So I would also encourage parents also just to encourage their children to go for, there's a diabetes camp, a child who goes to a diabetes camp, it's one of actually the best experiences that a child can have, especially if you are newly diagnosed with diabetes. So they do have those camps.

[00:25:10] **Dr Darren Green:** What is a diabetes camp?

[00:25:11] **Dr Lerato Motjale:** So the diabetes camp, it's where you gather with other children that have diabetes. Wow. Yes. And then they will teach you about the diagnosis, they reiterate what the diagnosis is, how to cope with diabetes. You have peer group meetings. Yeah. So it's really, really a good experience to have.

[00:25:35] **Dr Darren Green:** That is incredible, Doc.

[00:25:37] **Dr Darren Green:** I am extremely excited about some of the developments in the field and the speciality of paediatric endocrinology in your field and what you're doing to make a difference and, you know, impact the lives of children with this condition. So from my side, a massive thank you for taking time out of your really busy day in changing lives and making time for us here at the Health Wrap podcast. Thank you.

[00:26:01] **Dr Lerato Motjale:** Thank you very much. And I appreciate the invitation. Stay blessed.

[00:26:07] **Dr Darren Green:** And that's a wrap. Thank you so much, Dr Lerato Motjale for being with us today and sharing your expertise. It's so helpful to understand diabetes in kids from someone who's working with these kids every day. If your child is diagnosed with diabetes, it probably feels as if your life is ending.

[00:26:25] **Dr Darren Green:** It's such a dramatic diagnosis, and it means they now have a chronic condition for life. But. With the right support and the right doctor to guide you on the path, it will become easier. It will all make a lot more sense. It can really help to reach out to other parents in the same situation, either through physical support groups or online Facebook communities like this.

[00:26:49] **Dr Darren Green:** Kids powered by insulin and South Africans with diabetes. You're most definitely not alone in this journey. Thank you so much for being here with us today. From me, your host, Dr Darren Green. That's it for this episode of the Health Wrap podcast, powered by Mediclinic. Thanks again to Dr Lerato Motjale for joining us today and sharing her insights.

[00:27:13] **Dr Darren Green:** And a reminder. If you need it, to subscribe to our podcast channel and sign up for the Mediclinic Prime newsletter, full of helpful health information. The link is in the show notes below. One more episode to go. We look forward to seeing you soon.