

Katie Johnson: Good morning and welcome to Apple a Day, Lake Region Healthcare's health and wellness segment where we feature news and information you can use to live a healthier life. I am Katie Johnson, your host, and my guest today is Dr. Erin Peterson. She is in our internal medicine department and is here to talk to us about diabetes. Good morning, Dr. Peterson.

Dr. Peterson: Good morning.

Katie Johnson: November is Diabetes Awareness Month and in preparing for that, I have learned that one in three American adults actually has prediabetes. That's a staggering number in my opinion and we are focusing a lot of attention this month on raising awareness of this far-reaching disease and how each of us can take some steps to help fight it. Let's start with the basics. Tell us about diabetes. What is diabetes? Then, as I mentioned, with one in three people having prediabetes, what is prediabetes?

Dr. Peterson: Well, diabetes is a collection of processes that make your body not respond or not produce insulin the way that it should. Type 1 diabetes is where the pancreas, which is an endocrine organ, doesn't produce enough or any insulin. Type 2 diabetes often times still has a insulin producing pancreas but your body doesn't listen to the insulin that's been produced the way it should. Prediabetes is when people have risk factors for developing diabetes. One in three Americans have prediabetes and most of them probably don't know that they're one of those people who has this prediabetes condition. People who are overweight, people who are sedentary, people who have blood sugars that run above normal but not so high that they have a diagnosis of true diabetes, those are the people who have prediabetes. If their doctors aren't watching for it and if they as patients aren't engaged in watching for these signs, it can go missed until true diabetes is present, and we can lose that opportunity to prevent a disease before it happens.

Katie Johnson: Would it be accurate to say that most people who have prediabetes probably don't even know?

Dr. Peterson: I think that is accurate to say. Certainly some physicians are really proactive in identifying prediabetics. There's a really big focus on nationwide and statewide just the last couple of years to improve our identification of prediabetics to educate both providers and patients about prediabetes so that we can catch these people early. If we find prediabetics and we come up with a plan to change lifestyle and diet and maybe even start some medications, there's a good percentage of those people who we can totally prevent the progression to true diabetes from happening. That's important because when you have true diabetes, it means that your blood sugars are running high enough that it starts to damage your nerve tissue, your blood vessels, your kidneys, your eyes, your heart, your ability to heal from wounds and infections, things that really can

decrease your quality of life, make you die sooner or make you live as a lot sicker person than you otherwise would be living.

Katie Johnson: That's really a good news, bad news scenario there. You talked about the risk factors. Is there a group of people that's at greatest risk for diabetes?

Dr. Peterson: Absolutely. I think patients who are really sedentary and who are also overweight would be the highest risk. Going through those risk factors, I mentioned some of them. I'm going to go through them again. There's probably some other that I didn't include. If you have a family history of diabetes, if everyone of your siblings and your parents and your aunts and your uncles and everybody in your family had diabetes later in life, guess what? You're at risk for having that, too. If you're overweight, there's something called the body mass index and that's where we take your weight and we compare it to your height. It helps us determine if you're in the ideal weight range or overweight or obese or morbidly obese. Nobody likes to have the term obese or morbidly obese applied to them but it is useful from a medical standpoint. If your weight is high enough compared to your height that you fall into the obese or morbidly obese category, you're at very high risk for type 2 diabetes as well.

Then if you're older, so a 12 year old is a lot less likely to have type 2 diabetes than a 20 year old than a 50 year old than a 70 year old. We can't change anything about age. We certainly want our people to age but that is a risk factor.

Then I think one of the biggest ones is that the lifestyle in terms of activity. People who are sedentary, even if they're not really, really overweight, if they're desk job sitters, couch sitters, truck driving, sitting in your car, not walking around much people, sedentary lifestyle is going to make you a lot more likely to develop type 2 diabetes as your life goes on than somebody who's active, getting their 10,000 steps or a 150 minutes of exercise. 10,000 steps a day, 150 minutes a week, those are the two goals that you can try to work out for exercise.

Katie Johnson: If I'm a person that is at high risk or who wants to find out more about if I might be at risk or in that prediabetes range, what steps should I take?

Dr. Peterson: Well, first of all, when you have your annual exam with your physician or the next time you see them for a followup or if you're really worried, just make an appointment, just talk about this. It's a very valid thing to see your doctor about. But talk to your physician or your primary care provider about your concerns so they can go through your risk factors with you and determine if blood testing should be done.

Ultimately this is a diagnosis. Prediabetes and diabetes are diagnosis that are made based on blood work either fasting blood sugars that are above the normal range or an A1C blood test that's above a normal range. Deciding who gets those blood tests comes down to looking at your risk factors which could be a great discussion with your doctor.

There is something you can do at home or either for yourself or for a family member. There's a self-assessment questionnaire that's pretty easy to do. Those are available online through the Diabetes Association website or on our Lake Region Healthcare website. Go through it, answer the questionnaire either about yourself or about maybe your husband or whoever it is that you're worried might have prediabetes. As you're listening to this segment, fill out that questionnaire. If you score in a range that shows that you're at risk, bring that to your next doctor appointment or go ahead call and schedule, make one just specifically to talk about it.

Katie Johnson: We for November National Diabetes Awareness Month have that test pretty prominently on our website as you mentioned. You'll see a banner on the homepage that will take you directly to it or you can go to [lrhc.org/healthtest](http://lrhc.org/healthtest) and you'll find that assessment right there. For those who are already diagnosed with diabetes, what's the number one thing that you recommend to those people?

Dr. Peterson: I think the number one thing would be to increase the activity level as much as you can. Now, it's difficult if you have many other chronic illnesses and you're relatively bedridden but anything you can do to increase your physical activity level compared to what you are doing otherwise is going to help.

For most patients in the adult category, we're talking about type 2 diabetes. That's diabetes that comes on later in life that's due mostly to the body not responding to insulin the way it should. There's a couple different processes that are causing that type 2 diabetes. One is that the pancreas might have not been producing as much insulin as it used to. There's not a lot we can do about that other than medications. But the probably bigger components of it are that the insulin that is being produced is not having an effect the way it should and that's because fat tissue doesn't listen to the insulin like it should. Your lean body muscle, when your blood sugar is high, your pancreas produces some insulin. Your muscles says, "Oh, look, there's insulin. It's telling me I need to metabolize the sugar. I'm going to do my job." Fat tissue doesn't listen to that insulin the way it should. It might lower the blood sugar some but not as much as it's supposed to and so, at the end of the day, your blood sugar is still running higher than it should.

Anything we can do to get rid of that fat tissue and improve the lean body mass is going to help. Exercise is going to build up your muscle, burn fat. It's also going to burn off some of that sugar that's floating around. Eating less carbohydrates. That's breads, potatoes, pastas, crackers, cookies, sweets, things that are sugary or turn into sugar in your bloodstream. Obviously if you eat less sugar, you'd have less sugar to get rid off in the first place. Then things that just lose weight so if you can get rid of that fat. By eating less carbohydrates, by eating less fatty foods, by portion controlling, increasing your exercise, anything that leads to weight loss will also lead to improved sugars. Then there's a handful of medicines that we can use either for prediabetes or for diabetes if the lifestyle things alone aren't taking care of it.

Katie Johnson: How about for someone who's living with or supporting someone who has diabetes? Do you have tips for them?

Dr. Peterson: Yeah. It's really hard to try to do the right thing when the people around you are living the less healthy lifestyle. If you have your wife or your husband or your daughter has diabetes and you want to support them, your friend, try to eat a healthy diet with them. Try to be physically active with them. Get out there and go for walks together. Go for bike rides. Plant a garden and eat fresh produce. Try to set the table with lunch sized plates instead of big platters. If you're eating out, order something and split it between the two of you so that you're both getting half as many calories as you otherwise would have. Trying to live to some degree the lifestyle with the person with the diabetes or the prediabetes is going to be the best thing you can do to help them because it's very difficult to walk the road alone when everybody you is still eating out those glorious sweets and baked goods and wonderful, tasty foods. Nobody, I guess, is really craving rutabaga or I don't know.

Katie Johnson: Right. Bottom line, it's going to help you, too.

Dr. Peterson: Yes.

Katie Johnson: It's certainly not going to hurt you.

Dr. Peterson: I can't think of anybody who I advised to eat a higher fat diet or who I recommend eat more sugars or who I recommend exercise less. There's very few people that fall into that category.

Katie Johnson: It's good for all of us.

Dr. Peterson: There's a few people maybe out there but I don't have any of them in my practice.

Katie Johnson: Right. Very few. Any last thoughts you have or things you'd like our listeners to know about diabetes?

Dr. Peterson: Well, I think for both diabetes and prediabetes, it's important to know that these are not unalterable life sentences, that the story is not written for you. If you get a diabetes diagnosis or prediabetes diagnosis, it's an opportunity to improve your health. It can turn out very badly if you ignore it and you don't take the medicines and you don't try to exercise and you don't alter your diet. It can lead to really bad health things. It really can but it can really be improved and sometimes even essentially cured by making lifestyle changes. You have a lot of control in the outcome in these disease processes. If you work with your physician and even with the diabetes educators or nutritionists, we can lots of times come up with a patient being healthier than they've ever been in their life after they've gotten a diagnosis of diabetes or prediabetes because they make all these wonderful life changes.

Katie Johnson: That's fantastic news, great advice. Dr. Erin Peterson, thank you so much for sharing your insight with us on diabetes during National Diabetes Awareness Month. We appreciate you sharing that expertise and giving that real advice that's good for all of us and particularly that good news that we have some control over our health and over the condition of diabetes. Thank you again.

Dr. Peterson: You're welcome. It's nice being here.

Katie Johnson: Dr. Erin Peterson and Katie Johnson on Apple a Day this morning reminding you there is so much to do here, stay healthy for it. Have a great day.