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Life's Essential 8™

Donald
Lloyd-Jones:

Welcome, and thank you for joining this podcast. Today, we'll be discussing the recent release of the American Heart Association's Life's Essential 8, which was expanded from Life's Simple 7 to include healthy sleep as essential for optimal cardiovascular health. We'll also discuss the other lifestyle factors included in Life's Essential 8 and how healthcare professionals can use this checklist to help patients with diabetes manage their risk for heart disease and stroke. The purpose of this ongoing podcast series is to reduce cardiovascular deaths, heart attacks, strokes, and heart failure in people living with type 2 diabetes, and it's based on the collaborative initiative between the American Heart Association and the American Diabetes Association, Know Diabetes by Heart.

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This series is brought to you by founding sponsored Novo Nordisk and national sponsor Bayer. I'm Dr. Don Lloyd-Jones, chair of the Department of Preventive Medicine, Eileen M. Foell Professor, and professor of preventive medicine and pediatrics at Northwestern University. I'm also the immediate past president of the American Heart Association. I'm so pleased to be joined today by Dr. Jane Reusch, who's professor of medicine, bioengineering, and biochemistry, and associate director of the Ludeman Family Center for Women's Health Research at the University of Colorado Anschutz Medical Campus. Importantly, she is also the past president of the American Diabetes Association. Jane, thanks so much for joining me today.

Jane Reusch:

Well, thank you. It's a pleasure to be here.

Donald
Lloyd-Jones:
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Terrific. So, we're going to talk today about Life's Essential 8, the AHA's formal definition of cardiovascular health, and I think we should touch a little bit on how having optimal cardiovascular health or at least the best cardiovascular health that you can achieve at any age, first of all, can help prevent diabetes, but then it is even maybe more important once someone has prediabetes or a diagnosis of type 2 diabetes. So, if it sounds good to you, maybe I'll launch into a little bit of history about cardiovascular health.

Jane Reusch: Sounds fantastic.

[00:02:00] Donald Lloyd-Jones: Terrific. So back in 2010, the American Heart Association wanted to add a focus on health promotion and not just disease prevention. And so, at that time, they asked some of their volunteers, and I was very fortunate to lead this amazing group of people, to make a formal definition of cardiovascular health. And so in thinking about what does cardiovascular health look like, we had to say, "Well, health is more than just the absence of disease, and it's probably a series of characteristics that should be modifiable that people can control on their own and that is associated with really good health outcomes, living longer, living healthier longer, avoiding heart attacks and strokes, and even, yes, avoiding diabetes."

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[00:03:00] So, at the end of the day, we came up with this formal definition for cardiovascular health that included seven elements, and those seven elements eventually became known as Life's Simple 7. Briefly, they included pursuing a healthy diet, pursuing physical activity, ideally every day, avoiding smoking combustible cigarettes, maintaining a healthy weight, and then having healthy blood sugar levels, healthy blood pressure, and healthy blood cholesterol levels. That Life's Simple 7 package, over and over, has shown us, in multiple scientific studies, to be associated with, indeed, those better health outcomes that we hoped that it would be.

[00:03:30] So, in fact, again, at any age, people who have higher cardiovascular health status do have a lower risk for diabetes in the long term. They do have a far, far lower risk for heart attacks, strokes, even cancer, even other things like kidney disease, and they live longer and live longer healthier. So, this package of seven things appeared to be the fountain of youth. Now, just this year, the American Heart Association updated that Life's Simple 7 construct, because we had enough science to say, "We can actually do this even better." In that process, Life's Simple 7 became Life's Essential 8, and the eighth metric of cardiovascular health that we added was optimal sleep, healthy sleep.

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[00:04:30] So now, we have that eighth thing, healthy sleep, and we're going to talk today about why these eight components are so important for, first, avoiding the onset of diabetes, but then, they become perhaps even more relevant once you have diabetes. So again, I'm so pleased to be joined by an expert on diabetes, Dr. Reusch, and former president of the American Diabetes Association. And so, I want to start off kind of talking about your perspective, Dr. Reusch, on, how do these lifestyle components, things like diet, physical activity, sleep, and even kind of smoking and nicotine exposure, how do all these things play into someone's risk for developing diabetes?

Jane Reusch: Well, first off, I'm so pleased to be here today, and when I was president of the ADA, I had the opportunity to help the ADA and the AHA build the platform for Know Diabetes by Heart. So, I've been on their scientific advisory group

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[00:05:30] throughout the time, and one of the things that was so inspiring about trying to pull this together was the commonality of what it is that we are trying to get across to the public and also trying to help providers think about. So, when somebody has diabetes and they are living every day with diabetes, then every decision they make, whether it's to sleep, whether it's to do physical activity, whether it's to be sedentary, and exactly what they are eating, and the time of day they're eating it, all can impact their blood glucose.

[00:06:00] But importantly, they can also impact their blood pressure. They can impact their cholesterol, and when we think about the collusion of ... the collision of diabetes and cigarette smoking on the heart and the blood vessels, that is like pouring kerosene on a fire. And so, when we are thinking about these essential components to outstanding cardiovascular health, then everyone with diabetes, we need to just be even more supportive and engaging on getting people to see these as essential components of their day-to-day health and their longevity. In my lab, we study exercise physiology and the fact that people with diabetes have a decreased exercise capacity, and so that means that that confers an excess risk of dying a little bit younger, so not being able to be physically active.

[00:07:00] Even just your walking speed will increase your lifespan, and so we really want to help people combat that. We need to be compassionate that diabetes itself is maybe interfering with this. So always, in every visit, every touch we have with a person living with diabetes, we want to be talking about how much they're moving, how much they're sitting, what they are eating, and things that they might like to do to become more active, and ways that they could lay their life out to let them sleep more. If you don't sleep, you tend to be more hungry. Your blood pressure and your sympathetic nervous system tends to act up. Your blood pressure will go up. So, we have every reason to add sleep to this wonderful compendium that was Life's Simple 7 and now Life's Essential 8.

Donald
Lloyd-Jones: [00:08:00] Wow. So much great information there, and a lot to unpack. Maybe I'll circle us back to the physical activity because I know it's a particular interest of yours. I think the current national guidelines recommend 150 minutes per week of moderate to vigorous activity, and that means something that's going to break a sweat, let's say, or even more intense than that. But we know that, actually, the benefits of physical activity start at a far lower level. You don't have to get to 30 minutes five days a week or 150 minutes total of moderate to vigorous activity to start reaping the benefits. What I say to my patients is, "The benefits start with that first minute exercise, and so if you're doing nothing, do something. Of course, if you're doing something, do more." But how do you talk to your patients about embarking on a physical activity program, and what's the safe and effective way to do it and make it a habit?

Jane Reusch: Oh, and this is so important. I love the fact that you use the word habit. So, this is all about what you're used to doing and what you'd be willing to do. So, I first inquire as to, "In a given day, what are things that you do when you're moving around? Did you ever enjoy walking? Do you have a dog? Do you have a spouse that you like to do things with?" I really try to figure out, is their neighborhood safe? Are there opportunities for them to move around?

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Then, I came up with my own, and I even coined it for various talks at local venues, sort of what we called Reusch Commercial Therapy, which was that during ... Let's say that you're watching TV. "During every commercial," and it becomes a little less now that we're streaming, "During every commercial, I want you to get up and sort of pace back and forth behind your couch. I want you to get up and move around. I want you, if you can't afford to buy weights, I want you to take canned tomatoes and move them up and down with your hands." We also had elderly patients who can only walk a little way or maybe have claudication. So, we had a bench therapy. There are benches in our park, and you could walk to one bench, have a little seat, just enjoy it. You walk a little more quickly to the next bench. You walk a little more slowly to the next bench, and we call that sort of bench interval therapy.

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So, I'm just really trying to meet people wherever they are and get them out of the chair, and first out of the chair. Let's say they do like to have something, or if they have an exercise bike, I tell them, I say, "Well, if you don't have any exercise equipment in the house, but you have room, you could buy used exercise equipment. Because it's always new. Somebody bought it. They didn't use it. So, you can have that, and then just start, like five minutes." I say, "You're not even really going to believe what I'm going to tell you now." Right? I'm going to say, "Five minutes on that bike every day, then maybe five minutes twice a day. Then, you kind of increase it."

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Then, what people will find, if they're either increasing their walking or doing intervals on a bike, is that all of a sudden, they're doing twice as much and feeling less tired. So, what we've realized is that people do ... who are very deconditioned, life, I mean exercise is extremely uncomfortable for them. So, we need to be compassionate but also persistent, just like smoking cessation. We would never forget to tell people to stop smoking. We should never forget to talk about diet and physical activity.

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Donald Lloyd-Jones: I love that. So many good pointers there and tips for people, and I think that sort of overarching concept of, "If you're doing nothing, do something. If you're doing something, do a little bit more and try to do more and move more every day," so important. That's how people can make it be a habit, and have it be ingrained, and, as you said, truly enjoy it. I think those are really wonderful strategies. Let me circle us back to sleep for a second. You mentioned that people who aren't getting optimal amounts of sleep and optimal amounts of quality sleep, in particular, have worse or more difficulty controlling their blood sugar, and that is

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[00:12:00] about the fact that they are more hungry. They will eat more. They will tend to choose, perhaps, higher-carb foods, in fact, because that's what their body is going to ask them for. They will have sympathetic activation, and so their blood pressure will be worse. So many things kind of cascade.

[00:12:30] When I talk to my patients, we talk about physical activity as a way to kind of physically tire themselves out during the day, and then very important to have a routine. Get in bed at the same time every night. Don't have bright screens on because that's going to keep you awake longer. It's going to keep your brain alert longer. Get up at the same time every day, even if it's the weekend. That routine will train your body to have better sleep.

[00:13:00] Incredibly importantly, for so many of our patients, if there's a chance that they have sleep apnea that is really disrupting the quality of their sleep, they need to work with their doctor to get tested and treated for the sleep apnea, because it's not just the duration of sleep, but it's the quality of that sleep. Many of our patients who are heavier, who have a heavier weight journey, are at risk for sleep apnea, and that's so hard on your heart, so hard on your diabetes control. And so how do you talk to your patients about sleep and the importance of this in managing diabetes?

Jane Reusch: [00:13:30] Yeah. So, I'm going to answer this in two ways, because the first is just, very much, I take many of the same strategies that you would take. I tell them that if they are up and doing things, and even if they want to take a nap during the day, I want them to time that nap. I want them to set an alarm so that they don't sleep for more than an hour. Particularly, when you're trying to get somebody to be more active, sometimes they need a rest, a brief like 20-minute lay down. But I say, "Lay down, and then get back up."

[00:14:00] But it's very important not to be sitting in a chair and dozing off kind of all day, because then you won't be fatigued for the night. Definitely, the sleep apnea issue, I think that you want to ask a lot of questions to your patients about, how do they wake up? If they did happen to have a good duration of sleep, do they wake up well, do they ... Because some people don't look the part for sleep apnea. They have sleep apnea and really not have formal obesity. They may just be moderately overweight. It's not typical for the normal body weight, but it can happen there, as well.

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Donald Lloyd-Jones: And the bed partner, right? The bed partner's so important to report back.

Jane Reusch: Oh. Yes.

Donald
Lloyd-Jones: I mean, yes. Yes. They may snore, but do they stop breathing? Do they struggle to breathe? Do they thrash about before they can get another breath? Really key kind of information and evidence that someone might have sleep apnea.

Jane Reusch:
[00:15:00] Right. Right, and the phrase I use, I heard actually from one of my cardiologist friends, was, do you sleep like a fish, flopping around? The other thing that I think about sleep is that people have different attitudes about sleep and about whether it's a good use of time. So, I think we really need to help people not to have ideas about sleep, that it's something bad for them, that if they were really an efficient person, they would sleep five hours a night, that sleeping five hours a night does not make them more efficient, sleeping seven to nine hours a night will really help their overall cardiovascular health.

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[00:16:00] But then, when you have a person who lives with diabetes, who's on insulin, sleep becomes a whole other story. A lot of people fear going to sleep because of hypoglycemia, and they might eat right before sleep, or they may have habits where they wake up and check their blood sugar in the middle of the night. And so, I think one of the really exciting things is some of these new technologies of continuous glucose monitoring that really allow people to see what is happening when they're asleep. Are their sugars dropping overnight, and if they are, then we can work with them and empower them not to need to be trying to fight that. We can adjust their medicines so that that is not the case, and we can do so exceptionally well.

[00:16:30] Now, exercise and the blood sugars tend to be something that you need to teach a patient about, really put them in charge of it. But once they feel in charge of it, then that is something that, even 10 years ago, I wouldn't have been able to tell you I had the real answer to. But I would say that right now, we have a lot of opportunities to help people who are fearful of sleep because of concerns about hypoglycemia. The other thing is we tend to, we study the insulin resistance that occurs with sleep deprivation, and even just three or four days of sleep deprivation will make you less sensitive to insulin. What that means for the person living with diabetes is if they're taking insulin, then maybe it won't work as well, but also that insulin resistance, and it tends to make people hungry, and, like you said, for the wrong foods, for foods and either high-carb or high-fat foods that are not really conducive to cardiovascular health.

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Donald
Lloyd-Jones: Exactly. So, I think we've made a case, and I'm just going to take a moment to review what's in the Life's Essential 8. So, we had healthy diet, participating in physical activity as much as you can, maintaining your best weight, and, of course, avoiding all exposure to nicotine, really, really important, optimizing your blood sugar, however that's best done with your doctor, controlling your blood pressure, and we're going to talk about that more in a second, controlling your lipids, of course, and the last one that we just mentioned is healthy sleep habits. So those are our essential eight for optimal cardiovascular health. They're so

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tightly linked to diabetes, and diabetes risk, and management of diabetes, as I think we've made a strong case for.

[00:18:30] So, let's talk a little bit more about some of those, I'll call them downstream things, blood pressure, lipids. So, as a cardiologist, I often will co-manage or defer a lot of the management of diabetes to my endocrinology colleagues, like yourself, but I really put a premium on controlling that blood pressure. Because I know that these things work synergistically to damage our kidneys, to damage the blood vessels in our brains, to damage the blood vessels in our heart, to put us at risk for heart failure. And so, somebody who has diabetes, that blood pressure is that much more important to control.

[00:19:00] And so, I really put a premium on locking that blood pressure down, making sure that we've controlled it through the entire 24-hour cycle, not just when we're measuring it in my office. So, I partner with my patients to measure their blood pressure at home using home blood pressure machines, and we'll often do what we call 24-hour ambulatory blood pressure monitors to make sure we really do have them controlled well through the 24 cycle. Your thoughts about blood pressure in people who have diabetes?

[00:19:30] Jane Reusch: I mean, I agree 100% with everything you have said, and then also the fact that sleep as well as controlling your blood sugars will ... and your salt intake are so critical for this blood pressure. I will often tell people that if you are active and limit your salt, then we might be able to limit your blood pressure medicine, but I will never limit your blood pressure medicine if your blood pressure is not where we need it. So, there's some sort of perception, that I think is more perception than real, that the ADA and the AHA/ACC have different blood-pressure-lowering guidelines, and really, it is that sort of never land between 130 and 140 and a blood pressure, a diastolic blood pressure of 90 as to exactly where you're going to start.

[00:20:00] But any of us looking at our person who is living with diabetes would say that the blood pressure that we want is less than 130 over 80, but that we may or may not really try and work with somebody to work on lifestyle management that will get them there. Just like with glucose lowering, if people are prudent about their food intake, they may not need extra medicines. If people are watching their salt, and being physically active, and sleeping well, then their blood pressure may be easier to control with a single agent. But we will have no hesitation for going right up the ranks, because blood pressure is basically, it's so important and anathema to the diabetes group out there for me to say that when it comes to blood pressure and cholesterol, they may be, from a cardiovascular health perspective, a bigger priority to me.

[00:21:00] If I am going to prolong the lives of my patients who are living with diabetes, I have to keep an eye on those, and every time somebody, any provider, sees that person, I want them to be focused on those things. The other thing's that they're

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[00:22:00] a little bit easier to control than blood sugar. But that doesn't mean that the cardiologist shouldn't be thinking about blood sugar, because we were getting better and better agents. I think that all of us need to just be ... and you're a preventative cardiologist. I'm a preventative cardiologist on TV. And so, I would just say the message is people living with diabetes have likely reason that their life will be shortened from cardiovascular disease. So, we have to do everything in our power to mitigate that risk.

Donald Lloyd-Jones: [00:22:30] Yeah. Absolutely right, and you mentioned this. We've talked about the importance of controlling blood pressure using all means, lifestyle, and medication. As you said, we now have these wonderful medications that not only help control blood sugar, but actually reduce risks for heart disease, for heart failure, for stroke. Really great to have these new classes of medications. I hope patients will ask their doctors about them. I hope doctors have learned a lot about the SGLT2 inhibitors, the GLP1RAs, all of our kind of wonderful new armamentarium for treating diabetes and lowering cardiovascular disease risk.

[00:23:00] Just because it's near and dear to my heart, we'll spend a moment on lipids. You mentioned them. Sometimes, people think it's counterintuitive. " Well, I have sugar problems. Why do we care about my cholesterol?" Well, same reason as with the blood pressure. The diabetes kind of primes the vessels for damage. It lets the cholesterol get into the arteries more easily. The plaques form more easily, and people with diabetes are high risk for heart attacks and strokes from those plaques that can form. There is no LDL cholesterol that is too low. We just haven't found it yet. We keep pushing. We keep pushing lower. People with diabetes must be on a cholesterol-lowering agent to really optimally reduce their risk, and they need to be measuring their LDL cholesterol with their doctors and getting it as low as they possibly can with lifestyle and medication. I just think there's nothing else to say about that. It is so important.

Jane Reusch: [00:24:00] We need to be very mindful that if a patient I is having muscle aches and pains with a statin, even though that's just a small proportion of people, when you have millions of people living with diabetes, 37 million in the United States, it's going to be a real proportion, and all of us are going to see it. And so, we need to be mindful that there are many other tools out there beyond the statins and also that we really can be pretty creative and optimistic about having them come off the statin, try another statin, really become convinced that that statin is causing the trouble. If it, in fact, is causing the trouble, then we figure out another solution to getting their LDL lowered.

Donald Lloyd-Jones: [00:24:30] Yeah. So important to say that that, in fact, many patients who happen to be taking statins have muscle aches, and many patients who aren't taking statins have muscle aches. And so, you really need to do those N-of-1 trials that work to make sure you understand, is this really from the statin? Of course, really wonderful, elegant research most recently showing us there's a huge nocebo effect. Just the act of taking a pill can suggest to patients that they have muscle

[00:25:00] aches. So, if there's any way to get them on a statin, you should, with dose changes, with drug changes, as you said. If not, we definitely have a lot more options now for effective, and safe, and risk-reducing lowering of LDL cholesterol.

[00:25:30] So, I know we have just a little bit of time left. One of the things we focused on in talking about this renewed focus on cardiovascular health and the Life's Essential 8 upgrade was actually the context in which people can try to achieve their best cardiovascular health. We spent a lot of time talking about the social determinants of health, those contexts in which we are born, we grow, we live, we eat, we pray, and we play, all the things that are so important to our daily lives that aren't in the doctor's office, socioeconomic position, education status, access to healthcare, ability to pay for healthcare. All of these things are just

[00:26:00] crucially important, and yet I think, as doctors, we often forget to kind of consider this context with our patients.

How does that come into your discussions with your patients? How does it come into your management of their diabetes in thinking about all these other things for their optimal cardiovascular health, but they have to go home to a situation that might not be optimal to manage their diabetes? So how do you address that?

Jane Reusch:
[00:26:30] Yeah. So, one caveat up front is that I work in the VA, so I have many patients that live on the edge. On the other hand, they also ... So, they may have very limited resources. They may have housing insecurity. They may have food insecurity. What they won't have that so many people living with diabetes does have is medication insecurity. So, in the VA, I am able, if a person needs a certain

[00:27:00] set of medications or supplies or ability, I'm able to get them access to all of the diabetes-related things they need for blood pressure, cholesterol, blood sugar control. But I train a lot of residents and fellows in our clinics and medical students to ask a couple of questions.

[00:27:30] I love that in the Life's Essential 8 questionnaire, it has some of those questions in there that really talk about, "Are there times, at the beginning of a month, do you worry that by the end of the month, that you will not have access to food? Do you worry you're going to run out of food? Do you have access to any grocery stores in town?" So, these are the things that we, as privileged physicians who really don't have to worry about where our next meal is coming from, and the

[00:28:00] people on our teams that are helping to take care of these people need to make these questions feel routine, just like your ...

[00:28:30] We've incorporated physical activity into our vital signs. We didn't used to have a ability to measure blood oxygen. Now, it's routine. So, we need to routinely be asking, "How is your mental health? How is your food security? How is your housing security?" We need to work with and coach our provider staff to become really comfortable with those questions, because they feel

uncomfortable. They don't want to ask somebody, "Is your life so difficult that you don't know if you're going to have food or housing?" They feel uncomfortable, and our society judges' people for not having access to food and housing

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Donald
Lloyd-Jones:

Yeah. So important, and I couldn't agree more. Just starting to ask the question indicates that we understand how important it is, that we care, and that we're going to hopefully now move, as a profession, to trying to find those solutions, engaging our social worker colleagues, getting our health systems more in the game here to make sure that our catchment area, the people that we are caring for, don't have as many of these problems in accessing healthy food, in getting access to healthcare, having safe streets on which to walk after dinner. All those things are so, so important for overall health.

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So, this has been a great conversation. I want to kind of revisit a couple points and, again, remind people Life's Essential 8 consists of four health behaviors, four health factors. The four health behaviors are maintaining a healthy diet, we didn't even go into much detail on that, but I know it's been covered on other podcasts, participating in physical activity, pursuing, obviously, healthy sleep patterns, and avoiding all manner of nicotine, no question about it, and then, of course, healthy weight, optimizing your blood sugar, optimizing your blood lipids, optimizing your blood pressure. Those are Life's Essential 8.

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I hope that clinicians and patients will actually start to routinely assess this. We think of Life's Essential 8 as a new vital sign, also, and that it's something you can track in your patients over time. It's something that is responsive to change. So, if people do increase their physical activity, or they improve their blood lipids, or whatever they choose to work on, they will actually see an improvement in their cardiovascular health score over time if they repeatedly do this. You just took the Life's Essential 8 quiz just before we started this podcast. Thanks for doing that. If people want to access it, they can go to ... You can find it through the My Life Check tool, so if you Google My Life Check, that will take you to the American Heart Association's Life's Essential 8 tool.

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You can also connect to it through the knowdiabetesbyheart.org website. So, either one will get you to the Life's Essential 8 assessment tool. Once you've taken it, you'll kind of get red light, green light, yellow light on each of those eight metrics, and you'll have great content from the AHA and the ADA to help you manage whichever of those eight items you and/or you, your patients want to attack, and I think just great strategies for how people can start to optimize their cardiovascular health, reassess themselves, see improvement, and hopefully get that positive feedback to improve their overall health, and obviously extend and prolong their lives, and improve the quality of their lives, as well.

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[00:32:00] So going to say it again. My Life Check is what you Google, or you can go to knowdiabetesbyheart.org if you want to take these assessments. Lots of great content there, and I want to finish, also, just by saying that blood sugar management is sort of the, of course, the foundation of diabetes. But when someone has diabetes, we have to think about all the other seven metrics in Life's Essential 8, because they become that much more important for people to try to optimize so that they're not getting eye problems, nerve problems, kidney problems, and that we're helping them avoid the heart attacks and strokes that could be coming if we don't pay attention to these things. So, lifestyle and medication working together, really, to optimize the health of our patients with diabetes.

[00:32:30] Looking to the future, we are hoping, through AHA, to actually get out code so that you can automatically calculate the Life's Essential 8 score for your patients as long as you're asking the questions about their diet, their physical activity, and some of these other things we've talked about. But it'll pull in lab values and things like that. So, look for that to the future, and we hope that this has been a valuable thing for both patients and clinicians to help manage their diabetes and improve, again, health and quality of life for all of our patients.

[00:33:00] Well, I want to thank you all very much for listening today, and hope you'll stay tuned for upcoming podcasts on Know Diabetes by Heart. We really want to hear from you, and so if you have a suggestion for future content, please email us at knowdiabetesbyheart@diabetes.org. It is our mission to reach as many listeners as possible with this lifesaving information. If you enjoyed this podcast and are listening on iTunes or Google Play, don't forget to leave us a rating, and please do subscribe. Finally, I just want to thank Dr. Reusch for being with me today and talking about these really important topics. Jane, thank you so much.

Jane Reusch: Well, and thank you so much, Don. I really appreciate the opportunity to talk about my favorite topics.