

ADA: Ask the Experts Access Live
May 9th, 2023

Carla Cox:

Hello and thanks for joining us. Welcome to the 2023 American Diabetes Association Living With Diabetes Ask the Expert series. Today's topic is managing your blood pressure may help preserve your heart and kidneys. My name is Carla Cox, diabetes care and education specialist, registered dietician nutritionist, and your host for today's program. Our Ask the Expert series is all about answering questions from our listeners, so start getting your questions ready.

For those of you on the phone, press star three, that's star three on your keypad, and an operator will collect your question and place you in the queue, so that you may have the opportunity to ask your question live. To participate online, type in your name and question in the fields below the streaming player. Press the submit question button and your question will come directly to us. Stay with us through the hour and you will learn useful tips to help you live well on your journey with diabetes.

In addition, we invite you to provide us with your feedback in a survey at the end of the event, so please stay with us. Okay. Now a little bit about why we're here today. Because of the link between diabetes and heart health, the American Diabetes Association in collaboration with the American Heart Association, has launched Know Diabetes by Heart.

With support from founding sponsor, Novo Nordisk, as well as national sponsor, Bayer, the Know Diabetes by Heart Initiative provides tools and resources for people living with Type 2 diabetes to learn how to reduce their risk of cardiovascular disease. As part of the initiative, the ADA is holding this free educational Q&A once a month. We'll cover information and tips to help you take charge of your health. When you have diabetes, it increases your risk of heart disease, stroke and kidney disease.

Make sure when you see your doctor, you talk about your risk and work towards prevention, and visit knowdiabetesbyheart.org for more information and resources. Okay. I am delighted to introduce our guest speaker today, Dr. Ed Perrin. Dr. Perrin completed his residency training in family medicine and a fellowship in geriatric medicine. Dr. Perrin has had a myriad of different clinical physicians.

Including part and full-time residency faculty, working in the managed care world, as a hospice medical director, as a primary care physician for Medicare populations, and ultimately, returning to his roots as a full range primary care family doc. Dr. Perrin relishes the full spectrum of family medicine including preventative care and chronic illnesses, especially diabetes, renal conditions and hematological disorders.

He has remained involved with medical education as a clinical assistant professor at the University of Arizona College of Medicine. I might add is the medical director of a camp for children with Type 1 diabetes in the summer. Hello, Dr. Perrin. Thanks for joining us and do you have any added words to give us?

Dr. Ed Perrin:

No. Thanks, Carla. It's nice to see you and participate, and looking forward to some good questions.

Carla Cox:

Thank you. As we are waiting for our callers and online listeners to chime in, I'm going to go ahead and kick off with the very first question. Is there a target value for blood pressure or does it depend on the individual?

Dr. Ed Perrin:

Pretty straightforward question and as usual, not a straightforward answer. I think the theme today is going to be lower is better when it comes to blood pressure. Of the three big cardiovascular risks that

people have in adulthood anyway, blood pressure's at the top in terms of treatment goals and overall risk. After that, probably comes cholesterol, and then a close third would be your A1C or your sugar, diabetes management.

That's why I think blood pressure's probably the most important and that's why we're focusing on it today. To answer your question, Carla, lower is better. There's an arbitrary cutoff that we at the American Diabetes Association choose at 130/80 as being the target, as being the upper end, so lower than 130/80. Again, lower is better. Some people say that you really can't get too low as long as you're walking around and thinking normally. If your blood pressure is 90/60, that's okay.

That's probably healthy, in fact. There's lots of things that go into this, but people with diabetes, people at risk of kidney disease from diabetes or from high blood pressure, really lower is better. I think that a take home is 129/79 is the highest you're going to want to see it. If it's 130/80 or higher on either one of those, then changes need to be made to bring that lower, overall risk reduction and prevention of heart attacks and strokes.

Carla Cox:

Great, thank you. I think it's always okay to talk to your doc. If you're not getting the response, like if your blood pressure seems to be 145/95 and you're not getting any response, have that conversation, right? Have that conversation that you understand it should be lower.

Dr. Ed Perrin:

Yes. I think that's going to be another theme, which is one size doesn't fit all. Everybody, and this is how I approach my patients in my practice.

You really want to talk to your primary care or your cardiovascular risk doctor, so that you can individualize your treatment, individualize your options for management. Yes, always talk to your doctor.

Carla Cox:

Great, thank you. If you're just joining us, welcome to today's Ask the Expert's Q&A. Managing your blood pressure may help preserve your heart and kidneys. As a reminder for those of you on the phone, press star three. That's star three on your keypad and an operator will collect your question and place you in the queue, so that you may have the opportunity to ask your question live. To participate online, type in your name and question in the fields below the streaming player.

Press the submit question button and your question will come directly to us. Remember, today's topic is managing your blood pressure may help preserve your heart and kidneys. Let's remember to focus on that topic for today's event when asking questions. Okay. Now let's take the first question from our listeners. I'd like to start with Ike and Ike is from New York. Ike, you're on the line.

Ike Stud:

Yeah. Ike Stud from Compton, New York. I'm a Type 2 diabetic and I have high blood pressure. My concern is how can I lower my readings in both and preserve my kidneys?

Dr. Ed Perrin:

Thanks, Ike. Carla, can I just jump in or do we need?

Carla Cox:

You sure can.

Dr. Ed Perrin:

Okay. Ike, great question. Well, there's an easy answer and there's a more challenging and long answer. The easy answer is lower your blood pressure in every and any way that you can. As a doctor, I'm going to tell you that one of the easiest ways to lower your blood pressure is to take medication that your doctors have prescribed or I would prescribe. There are lots of factors, however, that go into lowering blood pressure.

I don't want to overlook the opportunities to improve your blood pressure control by doing things at home that are not prescription. The four big ones, I guess I should say, are lifestyle related. Number one is tobacco. If you're a smoker, you just got to quit. That puts a huge strain on your blood vessels and your heart and your kidneys. Quitting smoking, even if you gain weight because you quit smoking, quitting smoking is going to be the number one most important thing you're going to do for your health. Cardiovascular health, kidney health and blood pressure. Number two, lifestyle, physical activity. I don't know how old you are, Ike, with Type 2 diabetes, I don't know what your mobility is. But even really chairbound, limited mobility patients can increase their physical activity a little bit and that's really all that matters. Getting some regular physical activity in is good for your cardiovascular health.

If that means walking or swimming or pool aerobics, hiking, stationary bike, calisthenics, video-based exercises at home. It doesn't have to be fancy. You don't have to spend \$25 a month on a gym membership. You can do things at home that are simple, around the neighborhood that are simple, assuming you live in a safe place to walk and you can walk.

If you're wheelchair bound, as long as it's not a power wheelchair, moving around in a wheelchair is good. It's upper body aerobic exercise. Even if it's not aerobic exercise, even weight-based exercises are going to be beneficial, so quitting smoking, physical activity. The last two treatments that are not prescriptions would be dietary. There's two items that I like to remind people to limit their intake of. One is salt or sodium.

It's hidden in lots of foods. Fairly good data to say that if you limit your sodium intake, your blood pressure improves. That's a nutrition question. It's a reading your labels question. If you can be more attentive to the sodium that you're taking in the food that you buy, certainly limit the sodium that you're taking by the food that you make yourself at home. That can have a positive impact on lowering your blood pressure.

Finally, I'd like to mention alcohol as a substance that people take and can affect blood pressure. What we see for people that are drinking on a regular basis or even on an occasional basis, alcohol while you're drinking it, can often lower your blood pressure. The problem is a few hours after you're done drinking, your blood pressure [inaudible 00:10:50]. That has this rollercoaster effect of ups and downs, and ups and downs, which puts a little bit of a strain on again, cardiovascular system and kidneys.

Limiting your alcohol could be beneficial for your cardiovascular and blood pressure health. That's a little bit of a tricky question in terms of... But again, to cap off, obviously lowering your blood pressure by taking medication that's prescribed will be important. Then four lifestyle options would be increasing physical activity, cutting back or eliminating tobacco products, limiting or reducing salt intake.

Finally, limiting or reducing alcohol. Those are my prescriptions both from an actual written prescription standpoint and then from a lifestyle standpoint, opportunities to lower your blood pressure. I hope that answers your question.

Carla Cox:

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Great. I really appreciate you working on the lifestyle part as well as the medication part, because it's such an important piece of that even when you're on medication. We have a question coming in from Sharon. Sharon is from Florida. Sharon, you are on the line live.

Sharon:

Hi, Dr. Perrin. Thank you for talking to me. I just would like to know how the blood pressure relates to blood sugar?

Dr. Ed Perrin:

That's a great question, Sharon. We don't know, short answer is we don't exactly know. I think too much of either, and so too high a blood pressure or too high a blood sugar, both will put a strain on your cardiovascular system meaning heart, blood vessels and brain. Both can put a strain on your kidneys, both at the microscopic level and at the larger level. The actual connection between the two of them is less clear. I would say they often go hand in hand, but you're going to treat each one separate.

There is overlap, but typically medications we use for blood pressure don't really impact blood sugar. Similarly, medications that we use for blood sugar tend to not affect blood pressure so much, although there's some newer agents that have some activity on both sides. Then like I said answering Ike's question, some of your lifestyle efforts will affect both. Activity in particular, will decrease your blood pressure really quite well over time.

Will certainly decrease your blood sugar, both in the immediate effects and that usually for 24 to 36 hours after moderate intensity activity exercise. There's not a true one-to-one connection between blood sugar and blood pressure. There are two facets of the same gem that is your body.

Really trying to optimize both with lifestyle interventions and with medications is going to be your answer really targeting one or the other. Although there is, like I said, some overlap. I hope that answers your question, Sharon.

Carla Cox:

Thank you.

Dr. Ed Perrin:

Carla, if you have something else maybe?

Carla Cox:

No, I think that's good. We have a write-in question from Aja. What does it mean if you have a normal systolic but a high diastolic blood pressure? My pressure was 118/87.

Dr. Ed Perrin:

That's a great question and it really leads me to answer, to dive into measurements. I think this is where, I think, we could spend probably a lot of time. Measurements that I get in my office when I see my patients, I don't want to say this too dramatically, but I don't pay much attention to the measurements I get in my office. Because it's in my office, my assistant has taken them, they maybe come up two flights of stairs to get to my office. They're running, they're late, they're stressed out, they're worried about any number of other things.

Even if they wait for a few minutes before their blood pressure's taken, it tends to be high anyway.

What I encourage my patients to do and I encourage all of you listeners also, is to measure at home and

get a good monitor. It can be a wrist, it can be an arm monitor, either one as long as they're validated decent pieces of equipment. Then when you sit down to take your blood pressure, you sit down in a calm, relaxed place. You put both of your feet flat on the floor so your legs aren't crossed.

You put the cuff on, wrist or arm, and then you wait. You count to 300, you relax, you don't scroll through your phone, you don't talk to your roommate, your spouse, whoever you're living with. You don't watch the news and get excited about whatever's happening. You simply close your eyes and take some deep breaths. Find your happy place, whether that's the mountains, beach, NASCAR, a restaurant, somewhere and you just imagine you're there, and you take some deep breaths.

Then you count to 300, which is five minutes, and then you push the button. Then you write down the number and you go on with your day. You do that several times so that when you come back and see me as my patient, or you go back and see your doctor and you have a list of about 10 or 20 blood pressure readings when you're relaxed. That is the more accurate test of blood pressure status than any reading I'm going to get. Now, to answer Aja's question about what does it mean to have a normal systolic?

Systolic is the upper number in a blood pressure reading, diastolic is the lower number. We find that systolic more accurately reflects your overall blood pressure status. What we see is that diastolic often follows the systolic, but in your case, your example, the diastolic was a little bit higher. What we see diastolic climbing often happens in periods of pain, or periods of high emotion or high anxiety.

The diastolic climbs when you're hurting or when you're anxious, and then drops back down when you're in less pain or less anxious, and so I do treat both. I tend to look at the systolic a little more regularly, because I think that tends to reflect a more average or a more chronic view of your blood pressure. The diastolics, like I said, tend to vary and fluctuate more for on a moment-to-moment or situational circumstances that can affect the diastolic.

That's my long answer, sorry, about how to measure, when to measure, how often to measure, and how to get the most accurate measure of one's blood pressure. Good question and thank you for letting me dive into a little bit of a longer digression.

Carla Cox:

Thank you. We have a question coming in from Marian and Marian is from Chicago. Marian, you're on the line.

Marian:

Hello?

Carla Cox:

Marian? Yeah. Hi, Marian.

Marian:

Yes, yes. My question is what part does uric acid play in your blood pressure and what is the normal range? How can you lower your uric acid numbers?

Dr. Ed Perrin:

Okay. Thanks, Marian. Uric acid is just like it sounds like, it's a small molecule in your blood that we can measure with a simple blood test. Uric acid is curious, does it directly influence blood pressure? Typically not. It's a metabolite of a lot of the food that you eat. There are foods that are higher in uric acid and

foods that are lower in uric acid. The classic uric acid foods are the internal organs, sweet breads are the classic. Uric acid is implicated in gout.

Normal range really varies based on your local lab, but we tend to think can be normal up until about six or seven milligrams per deciliter a unit. But people walk around with higher levels of uric acid with really unknown whether that means anything or not. Uric acid typically is implicated in gout, so therefore if you have active gout for whatever reason, sometimes it's from it's a metabolic disorder.

If you have uncontrolled gout, sometimes gout itself can affect the kidneys. Since kidneys are one of the primary regulators of one's blood pressure, if your kidneys are injured from elevated levels of uric acid or gout attacks, then ultimately it can affect your blood pressure. But typically, a uric acid level doesn't, even a high one won't necessarily mean that there's any impact on blood pressure.

Carla Cox:

Thank you. We have a call coming in from Joanna. Joanna, you're live.

Joanna:

Yes. I think part of this was already answered. I just wanted to find out if a wrist monitor is just as good as the arm cuff if I want to be taking my blood pressure at home?

Dr. Ed Perrin:

Great question. We think that wrist and arm cuffs are equivalent. I think the most important thing is that if you do use a wrist monitor, that your arm doesn't dangle. Because if it dangles, then there's more pressure flowing to the lower limb there. We always recommend when you do check your blood pressure that your arm, whether it be your lower arm at the wrist or your upper arm up by the shoulder, that be approximately level with your heart inside your chest.

Great question and I think what I would recommend, is get the most affordable blood pressure monitor. Any blood pressure monitor's better than no blood pressure monitor. If you prefer the wrist, if you've had surgeries that you can't take blood pressures higher up in your arm, then a wrist monitor is absolutely just as good as anything else, certainly better than nothing. Yes, use a wrist blood pressure monitor and try if you have a sofa where you're measuring your blood pressure.

That armrest or a chair or even a desk where you're measuring it, keep that wrist at about heart level while you're actually testing that blood pressure. Remember to try to relax while you're checking it before and while it's actually doing the squeezing measurement.

Carla Cox:

Thank you. We have a person that called in and left a message and it's Margaret. She said, "What fruits are good for people with diabetes to eat?"

I'm not sure that totally refers to blood pressure, but we can both maybe answer that question, but let's punt it to you first.

Dr. Ed Perrin:

Okay. Thanks, Margaret. Yeah. Diabetes and sugar intake is a little peripheral to this discussion around blood pressure and cardiovascular health. The quick answer is all fruits have sugar. It's natural sugar, which is the same as the sugar you'll buy that's granulated in the bag at the supermarket. Whether it be cane sugar, beet sugar, banana sugar, grape sugar, watermelon sugar, sugar is sugar. Your body will use it the same way.

My suggestion is that denser fruits, and Carla, you can probably springboard off this, are ones that are higher in sugar and should be eaten less of. The top three in my mind are bananas, pineapple and grapes. Those tend to have a lot of sugar per bite. Fruits that have less sugar per bite include melons and berries. Then the stone fruits and apples and citrus are in the middle. Carla, I'll let you take over for this because it's a little [inaudible 00:24:20].

Carla Cox:

Okay. All right. Once again, they have no sodium in them, so when it's referring to blood pressure, there would not be a restriction on fruit. In fact, fruit in itself has a lot of nutritional punch to it. It's good for you. The deeper the color, I would add generally the more the nutritional value. Things like blueberries and strawberries and cantaloupe are higher in nutritional values than things like apples.

But if you have diabetes, generally they tell you the quantity of carbohydrate to consume per meal. Maybe it's 30 grams per meal, maybe it's 45 or 60 depending upon you. Just keep that in mind when you're choosing fruit, but we certainly don't want to have you avoid it. That would not be where we want you to be, but just moderation and intake would be recommended. Okay, so let's go on to the next.

I have a couple of them that are more diabetes related, which is fine. We'll stick to the blood pressure ones until we need to change here. But this is Terri from Pennsylvania. Terri, you are on the line.

Terri:

Hi, I have a question. I'm in my mid 50s and my BMI is 26, 27. I'm not frighteningly overweight, but I've been taking blood pressure medicine since my mid 30s. And even with taking two kinds now, my blood pressure usually is about 145/95-ish. I just found out I have diabetes last July, so I've only had diabetes for a year. Well, I've only been diagnosed for a year.

Will that blood pressure, since you said blood pressure's really important, is that going to be too high now that I have diabetes as well, like I go blind or something? Or would that be that's not really that high, 145/95, and popping two pills a day for blood pressure?

Dr. Ed Perrin:

Terri, great question and sounds like you're on a journey with your cardiovascular health for a long time now. I'll go back to how I started the discussion, which is the lower, the better. If you're really checking your blood pressures and you're relaxed for five minutes and they continue to be in the 140s/90s, it's too high from an overall health standpoint. It's not as dangerous as 160s/100s, but it's riskier from a long-term standpoint than 120s, 110s over 60s and 70s.

The more you can get that blood pressure down, the healthier you'll be over time. Typically, blood pressure is not a rapid killer. It's a silent killer that takes years and years and decades now to have its effect. Really following up with your doctor to find out are there other things you should be doing to lower your blood pressure to mitigate your cardiovascular risk? I think there's a lot of options out there.

I don't know what medicines you're on, but pushing the doses, making sure you're accurately checking that blood pressure to really confirm that it's consistently 140/90s. Your blood pressure can be 145/95 if you're walking around in the middle of doing something. That's what blood pressure often is, our blood pressure often is when busy. When you're relaxed and sitting calmly, if it's in the 140s/90s, then I think some optimization of your medical therapy and/or your lifestyle therapy is in order.

You complicate this now with Type 2 diabetes. I'm assuming it's Type 2 diabetes now since July, and you really want to get aggressive with your blood pressure control. That is the most important of the ABCs of

diabetes. A being your A1C, B being your blood pressure, and C being your cholesterol. Blood pressure is far and away the most important number that you should be treating and should be focusing on. It's a great question, Terri, and good luck on getting those numbers lower is what I would say.

Carla Cox:

We have another write-in question. How is lower or how is blood pressure related to kidney disease?

Dr. Ed Perrin:

Oh, boy. Now you're really getting a complicated question. Great question. They are intricately interrelated. One feeds into the other, the other feeds into the first. It's a chicken and egg thing. Kidney disease by itself, let's say you have some weird genetic condition that causes your kidneys to not work very well. Over time, that will often result in elevated blood pressures because your kidneys are not working well.

Therefore, your whole system gets out of regulation and your blood pressure starts to climb. Conversely, if your kidneys are normal, you're born with normal kidneys and you develop high blood pressure. Over time, that high blood pressure can cause damage, microscopic damage initially to your kidneys, and over time, macroscopic, visible damage to your kidneys. Both looking at them with an ultrasound or a CAT scan, certainly looking at them from a biochemical standpoint with blood tests and urine tests.

That's the short answer is they are linked, they are connected, it's bidirectional. Kidney disease causes high blood pressure, high blood pressure causes kidney disease. It's unfortunate, but that's what we see and that's very common in the United States and across the world.

Carla Cox:

Thank you. For those of you on the phone a reminder, press star three, that's star three on your keypad, and an operator will collect your question and place you in the queue, so that you can ask your question live.

To participate online, type in your name and question in the fields below the streaming player and press the submit question button and your question will come directly to us. Okay, back to our questions. I love this one. This comes from Beverly in Florida. Beverly, you are on the line.

Beverly:

Hi, good afternoon. I'd like to know what is the impact of water and staying hydrated have on blood pressure when you have diabetes?

Dr. Ed Perrin:

Beverly, great question. Thank you. It's still morning here in Arizona, so I know you're in Florida so it's afternoon for you. I use that as a bit of an introduction that I live in the desert. Here in Phoenix, it is extremely dry. We have days where it's 3% humidity, which in Florida, I'm sure you're jealous about sometimes. I have this conversation often with my patients around kidney health. From a blood pressure standpoint, it's interesting.

If you're dehydrated, like dangerously dehydrated, that's where you can have low blood pressure. You don't have enough fluid in your system, in your body, in your blood vessels and so your blood pressure actually is low. That's what happens when you get dehydrated. We see this in the desert, especially out-of-towners that visit and don't hydrate well. However, if you don't hydrate well enough, that can also be an insult to your kidneys.

People with kidney disease in particular, so chronic kidney disease, whether it be from diabetes, from high blood pressure or any other reason, hydration is really important for your kidneys. When your kidneys are ill from a chronic condition, from chronic kidney disease, dehydrating them makes them worse. Is a second insult to their already fragile state being sick from a chronic kidney standpoint.

When your kidneys are ill and you are dehydrated, that can sometimes make it worse, then your kidneys react and your blood pressure can actually be high. Sometimes I'll see my patients with chronic kidney disease and high blood pressure and I'll ask them, are they staying hydrated? If they say no, I say, "Well, try staying really well hydrated. See if that helps with your blood pressure."

Sometimes staying well hydrated and keeping your kidneys as happy and healthy as possible, can lower one's blood pressure. That's a little bit of a roundabout answer to your question, but hydration is important. Finding that optimal balance, and depending on your other medical conditions, diabetes, heart disease are the top two that I think of. There are going to be other factors, whether it be medications or other conditions that can impact that hydration status, kidney health status, and ultimately blood pressure.

I tell everybody with chronic kidney disease, make sure you stay hydrated. There are complications and other factors that will make that more individualized based on what your conditions are. But generally speaking, staying well hydrated is important. I hope that answers the question.

Carla Cox:

Thank you. You've discussed this a little bit, but maybe it warrants talking about it a little bit more. We're going to have Geneva from Georgia go live. Geneva, you are on. Whoops, let me do this. You are on the line, Geneva.

Geneva, you're live. Okay. Well, maybe I'll ask her question. What is the blood pressure supposed to be for a female that is 71 years old? She puts 113, not sure what that is, maybe glucose. But anyway, she's 71 years old and we discussed individualizing, but maybe you could emphasize that again.

Dr. Ed Perrin:

Thanks, Geneva and thanks, Carla for driving and taking care of the technology piece here. I'm going to say again that lower is better, we know this. A big study was released about four years now, made a lot of headlines in the press really looking specifically at older patients. That's again an area of interest of mine as a geriatrician also. This was a pretty conclusive study that showed that even with all our fears about older people getting dizzy, older people falling.

Lower blood pressure has very real measurable health benefits even in your 70s and even in your 80s. The optimal blood pressure, again, less than 140, less than 130 if you have diabetes or kidney disease and lower than that if you can tolerate. Obviously, if you find yourself woozy because when you stand up and your blood pressure drops, then that's a consideration. But this giant study that was published a few years ago, demonstrated that really people didn't have those significant side effects and concerns.

That we in the medical community and you at home taking care of your medical conditions, really should be pushing your pressures lower. Again, not in my office but at home. I want to emphasize that a low blood pressure at home is where I'm striving for. It may be high in the office, but if you bring in your log and you show me doc, it's 115/65 most days, that's really great. That's really helpful.

Carla Cox:

Thank you. Here's another write-in question. How long should you wait after you eat or drink to check your blood pressure?

Dr. Ed Perrin:

That's a great question. The short answer is it doesn't matter. You don't have to wait. What you do have to wait for is five minutes of being calm and relaxed, breathing, measured way without distractions. It's a five-minute wait. When you sit down, put your cuff on, find a relaxed place, cuff it at heart level and wait. Breathe, be calm, don't be distracted. If you just ate a big meal, that's okay as long as you wait five minutes. If you just had a milkshake or whatever you like to drink, that's okay.

It shouldn't affect your blood pressure within minutes of eating. Now, caveats here include alcohol. Like I mentioned, alcohol can sometimes acutely lower your blood pressure in the hour or few after drinking, and then will spike it a few hours later or the next day. Caffeine will certainly increase your heart rate. It may increase your blood pressure by a couple of points.

Be aware of caffeine, particularly in the form of soda or coffee. But you don't have to wait any period of time before checking your blood pressure, except for the five minutes that I keep on emphasizing of being relaxed.

Carla Cox:

You want to be relaxed. Yeah. Here's a good question as well. Would losing weight help me lower my blood pressure?

Dr. Ed Perrin:

Great question. Very good question. Short answer is yes, kind of the only answer.

Carla Cox:

Well, it's probably based on what your weight is, right?

Dr. Ed Perrin:

Right. If you're overweight or obese, certainly blood pressure often improves as your weight goes down. I've seen patients that lose weight, really get to a healthy weight and end up coming off some of their blood pressure [inaudible 00:38:57]. Similarly, it will have a huge benefit, probably more of a benefit on your diabetes status than on your blood pressure status. But it will certainly have an impact on your blood pressure if you lose weight.

A goal to lose weight, I tell patients start with a goal of about 5% of your total body weight. If you weigh 200 pounds, 5% of that is 10 pounds. Aim to lose that over six to 12 months, and you will start to see some health benefits. 10% is really the ultimate goal. If you lose 10% of your body weight, again, if you weigh 200 pounds and you end up losing 20 pounds over a year or two, you may be at the maximum benefit from a weight loss standpoint, at about 10% of total body weight loss.

There's a huge resurgence in weight loss interest with newer drugs and so forth. I think that's a separate topic, so I don't want to get too much into that. But the short answer is yes, if you're overweight or obese, losing weight will most likely have an impact on your blood.

Carla Cox:

Unfortunately, I think that discussing weight has become less common in the medical office, because of concern about discrimination or blaming or whatever. I used to always tell the people that would come to see me when I did weight management with adults, was that just consider it a number like you do your blood pressure.

If it's too high, we need to talk about it. If it's too low, we need to talk about it, but we need to look at it as a clinical measurement. By looking at it that way, we can maybe improve your health if we can do something about it, but we need to not be afraid to talk about it,

Dr. Ed Perrin:

To individualize it. I totally agree, Carla. I think to individualize it. There are people that are just stout, their frame is bigger. A number, 190 pounds for one person, obviously height has something to do with weight also.

But 190 pounds on someone at the same height may not be that much, may not be of such concern if they're just a stout person or if they've been working out a lot. It's a number to put into the context of the individual.

Carla Cox:

Absolutely.

Dr. Ed Perrin:

Like any other number we look at, it's one element of someone's health.

Carla Cox:

Exactly right. This is a question that's coming in that doesn't really relate to blood pressure, but it's an interesting question, I think, particularly now in the literature. We're going to have Teresa come online and ask her a question. Teresa, you're on the line.

Teresa:

Hi. My question was about having when in the beginning you had said that cholesterol was a part of good cardiac health. Isn't having a calcium score a better indicator of your cardiac health?

I have another part to that. To whoever the dietician who said any Type 2 diabetic that would eat 30, 45 or 60 grams of carb in one meal, how could that be? That would be terrible.

Dr. Ed Perrin:

Teresa, that's two completely separate questions. Let me take the first.

Teresa:

I know but the second part came after I heard her response to somebody about that many carbs. That blood pressure at 60 grams of carbs could raise somebody's blood pressure 300 points.

Dr. Ed Perrin:

Yeah. Thanks, Teresa. Real quick, carb counting and carb amounts again are individualized. People with Type 2 diabetes that are physically active, 30 grams of carbs is a couple of slices of bread. They're going to have a sandwich for lunch with no problem. They may have two sandwiches for lunch at 60 grams of carbs and is perfectly acceptable for many people with Type 2 diabetes.

To answer your question about cholesterol, the evolution of cholesterol measurement has been ongoing and continues to evolve. As a family doc, as a primary care doc, I have an approach to cholesterol. I tend

to find myself in conflict sometimes with my colleagues in their cardiology circles because they tend to have a different approach, more of a difference of opinion around cholesterol.

We often end up at the same conclusion at the end of the day, which is your cholesterol is too high for you, and you need to be on a medicine to lower your cholesterol. Coronary calcium scores is a fancy way to look, take a picture of your heart with radiation. It's a CAT scan that has quantifiable risks, in terms of radiation doses. Over millions of people in America, we can quantify how many excess cancers may be caused by all these scans that people are doing with CAT scans.

Coronary calcium scoring has its place in risk stratification, seeing what level of risk you are of having a heart attack. I think it's not quite ready for prime time, but I have ordered coronary calcium scores. I think cholesterol levels are also important to measure just from a either drop of blood in the office like we do here in my office, or with a blood draw and sent to the lab to see where your levels of cholesterol are.

Both the good cholesterol and the bad cholesterol and the total cholesterol, and ultimately put it into a calculator. If you're 71 with Type 2 diabetes and high blood pressure, what does that mean for your risk? Where does cholesterol fit into that? If you're 42 with Type 2 diabetes, again, it's a different risk and I would talk to my patients individually about where you are in that risk, low risk, medium risk, high risk.

And where does CAT scans come in at in terms of identifying and more accurately quantifying your risk? What does that ultimately mean? It's just a number. When we treat your risk number with a medicine or with lifestyle or with surgical interventions, what does that mean for you as a patient? Let's figure out where to go with that. I hope that answers this. Carla, if you want to spin off on the grams of carbs for a meal with someone with Type 2, I'd be happy to hear.

Carla Cox:

Yeah, yeah, yeah. For 40 years, I've been working with people with diabetes and food, so I'm quite aware of some people who end up with a pretty consistent high response to having fruit or oatmeal or whatever with carbs. I'm a believer that many of the foods that contain carbs are important for our overall health. Lots of phytochemicals and fruits and vegetables in whole grains.

One of the things to always consider is if someone eats 15 to 30 grams of carbohydrate and has a pretty significant response, one of two things. They can go on an incredibly low carbohydrate diet if that's what they choose, eliminating those foods that may be promoting health in other ways. Or they can embrace some minor amount of medication that might help as well. Medications aren't all bad.

They have a place along with eating healthy and exercise, and there's other things people can do. They can eat 30 grams of carbs and you mentioned this. A person who's athletic or who's choosing to exercise regularly, they have 30 grams of carbs, they go for a walk and they come back and their blood sugar is stable. With that you just need to talk to your dietician about that and see what works for you.

Once again, I think one of the big take home messages from today is really individualization. I think that is a very important piece. Talking with your individual care provider about your risks for high blood pressure, high cholesterol, low cholesterol, whatever the case may be, that's really, really important and to be an advocate for yourself. Okay. We have a question coming in from Christine, it's written in.

How long should one take medication before deciding to discontinue it? I have great numbers at home. A nurse practitioner put me on lisinopril anyway because lower is better. I stopped after two days because I felt awful. Should I have stuck it out? Good question.

Dr. Ed Perrin:

Oh, boy. That's a great question. I think a periodic review of all your medications is valuable, maybe once a year, once every other year. In our book, are you taking the right medication, for the right [inaudible 00:48:18], at the right dose? The example of lisinopril, great medicine, been around forever. Has proven benefits both at the blood pressure level, at the kidney level, at the heart level and probably at the brain level also. What was it prescribed for? What was the indication? Is it for blood pressure?

Again, what are your numbers at home? What are they maybe in the office? What are your other risk factors, whether it be kidney disease, diabetes, heart disease, various types of heart disease, various types of kidney disease? Then again, asking the nurse practitioner, what was the purpose to take this? Then your individual experience with it, you felt terrible for two days. What does that mean? Was it a temporary side effect? Was it a serious side effect?

Lisinopril has a known, very, very rare life-threatening a side effect or risk by taking it. I think really like Carla said, individualize it. Why are you taking it? What was your experience with it? Was it the right dose? Maybe you started at 10 milligrams, you should have started at two and a half. Maybe you started at two and a half, you should have started at one and a quarter. The dose is important, the goal of therapy.

Then like you suggested at the beginning and like I answered at the beginning, reevaluate it after a year, after some lifestyle changes. "I stopped drinking, doc. I stopped smoking, I started exercising, I started drinking, I started eating this, I started taking this supplement. My cardiologist put me on this medicine, do I need to take it at the same time?" There's always new factors that are coming in over the course of a year and over a lifetime.

I think a reevaluation on a periodic basis, really that period, that interval depends on how comfortable you feel. But I think often stopping medicines is what I do and people feel better for one reason or the other. Having that conversation on a regular basis with your prescriber is really a great question. Really important to review why you're taking a medicine, what's it for? What are the possible side effects? What are the benefits and is this the right dose?

Carla Cox:

Thank you. We have time for one fairly brief answer and one question. I'm going to bring Lily from Florida on to ask her question. It's a great one.

Lily:

Hi. My question is how does stress affect your blood pressure?

Dr. Ed Perrin:

I thought you said it was going to be a quick answer. How does stress affect blood pressure? It does, and I think there's two ways to think of it. There's acute stress, immediate stress. When you step off the curb and you almost are sideswiped by that taxi, that's acute stress and your blood pressure should go right up immediately. There's acute stress when you're given bad news. There's acute stress when you're given good news. Lots of things can be stressful, it can be good stress and bad stress.

Typically, with acute stress the blood pressure goes up rapidly and typically should come back down within minutes or hours. Then there's chronic stress. Stress of a job, stress of relationships, stress of medical conditions, financial stress, spiritual stress, emotional stress. That is a more difficult thing to measure, evaluate and to quantify and so it's a much harder question. Chronic stress has impacts on blood pressure, on inflammation, on blood sugar that are still being figured out.

I think stress is not one thing, stress is at the cellular level. On the molecular level, we can see what stress can do to an individual cell. Stress is at an organic level and at an entire organism level at your entire person. Then even at societal stress. We know this in animal studies, the whole classic pecking order, so that comes from chickens. We've had chickens and we see the chickens at the top of the pecking order do really well, and the ones at the bottom of the pecking order tend to do less well.

This was reproduced at lots of different animal societies and those at the bottom of the stress level have worse health outcomes. I think blood pressure's probably implicated there. Much a very complex, very poorly understood better than it was 10 or 20 years ago. But still lots of research trying to understand what does stress mean, and what does stress do to your body including blood pressure? It does have impact.

We also know that stress reduction has positive impacts on your health, probably at the blood pressure level, but also at a much more complicated level too. Really good question and I wish we had better science to answer that.

Carla Cox:

Thank you. We are out of time, but thank you for all of your great questions you called and wrote in with. We are sorry we are unable to get to all the questions during this live Q&A event. If you have questions about this event, you are welcome to contact us at AskADA@Diabetes.org or by calling 1-800-342-2383. Please stay on the line for our survey to help us with future planning for our events. Surviving with diabetes takes a team and we're here to support you.

A special thanks to our expert, Dr. Ed Perrin. I just loved having you here. I am Carla Cox and on behalf of the ADA team, we would like to thank you for joining us today and we look forward to connecting with you at our next event. Join us for more KDBH events June 13th, Just Do It. Being active may be the most important contribution to your health, and July 11th, Now What? Life After Diabetes Complications.

Please visit our website for more information at diabetes.org/experts and register for the events today. If you have any questions about this event, please email AskADA@Diabetes.org. Include Ask the Expert's Q&A in your subject line. Thank you for joining us. Now on to our survey. Thank you so much for participating in our American Diabetes Association Ask the Expert's event.

We hope you can stay on the line for the next five to seven minutes to share your honest and valuable feedback to help us improve upcoming events. All responses will remain confidential. Please let us know your level of agreement with these statements. On satisfaction, question one. This event met my expectations today? For yes, press one. For no, press two. For unsure, press three. Again, question one. This event met my expectations today?

For yes, press one. For no, press two. For unsure, press three. If you feel you could use some extra support for managing your diabetes, check out the Living With Diabetes program where you can receive information through email and e-booklets with tips on eating, physical fitness and emotional health. Check out our registration page, diabetes.org/experts. Onto question two, I will attend another Ask the Expert's event?

For yes, press one. For no, press two. For unsure, press three. Again, question number two. I will attend another Ask the Expert's event? For yes, press one. For no, press two. For unsure, press three. You can find delicious and healthy recipes and menus to enhance your eating, check out the website, www.diabetesfoodhub.org. Okay. Onto question number three, which is a knowledge question.

This event improved my knowledge of the role of blood pressure in reducing the risk of chronic disease? For yes, press one. For no, press two. For unsure, press three. Again, question number three. This event improved my knowledge of the role of blood pressure in reducing the risk of chronic disease? For yes,

press one. For no, press two. For unsure, press three. Did you know that there are approximately 37 million people with diabetes? You are not alone.

Next series of questions intend to use the knowledge you gained. Question number four. I intend to use the knowledge I gained in my, my loved one's next appointment with the healthcare professional? For yes, press one. For no, press two. For unsure, press three. Again, question number four. I intend to use the knowledge I gained in my, my loved one's next appointment with the healthcare professional? For yes, press one. For no, press two. For unsure, press three.

Keeping your glucose within target range of 70 to 80 or 70% more of the time, is the international recommendation for diabetes management. Consider asking your provider about getting a continuous glucose monitor to help you manage your blood glucose. Confidence, question number five. Before this event, I felt confident talking to a healthcare professional about my, my loved one's increased risk of heart disease and stroke? For yes, press one. For no, press two. For unsure, press three.

Question number five again. Before this event, I felt confident talking to a healthcare professional about my, my loved one's increased risk of heart disease and stroke? For yes, press one. For no, press two. For unsure, press three. Check out the heart disease risk calculator at <https://www.cvriskcalculator.com> and discover if you are at risk for heart disease. Our final question, number six.

After this event, I feel confident talking to a healthcare professional about my or my loved one's increased risk of heart disease and stroke? For yes, press one. No, press two. For unsure, press three. Again, final question number six. After this event, I feel confident talking to a healthcare professional about my or my loved one's increased risk of heart disease and stroke? For yes, press one. For no, press two. For unsure, press three.

We sincerely appreciate your time and look forward to engaging with you on a future Ask the Expert's event. Please visit diabetes.org/experts to learn more about upcoming events. Thank you.