

American Diabetes Association: Ask the Experts Access Live Event Full Event
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Carla Cox:

Hello, and thank you for joining us. Welcome to the 2023 American Diabetes Association Living With Diabetes Ask the Expert series. Today's topic is How to Prevent and Treat Kidney Disease. 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 questions and place you in the queue so that you can have the opportunity to ask your questions 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 sponsored Novo Nordisk as well as national sponsor Bayer the Know Diabetes by Heart Initiative provides tools and resources for people living with type two diabetes to learn how to reduce their risk of cardiovascular disease and kidney 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 those risks and work towards prevention.

Okay, I'm very, very happy to introduce two guest speakers today. Dr. Vassalotti is the Chief Medical Officer of the National Kidney Foundation and Clinical Professor of Medicine and the Division of Nephrology at ICAN School of Medicine at Mount Sinai. At the National Kidney Foundation, his major focus is implementation of evidence-based clinical practice guidelines in chronic disease. He served as a PI for an AARP funded kidney health evaluation for adults with diabetes to analyze quality measure satisfaction with detection, evidence-based therapies, and health equity.

Dr. Ku, our other expert is a pediatric and adult nephrologist and a clinical epidemiologist. She's an associate professor at the University of California, San Francisco in the divisions of nephrology and pediatric nephrology. She is also the director of Nephrology Transition Clinic, which focuses on helping adolescents and young adults transition to adult care. Dr. Ku see's kidney transplant and chronic kidney disease patients in her clinic. Okay. So Dr. Vassalotti, could you please add anything you'd like to add to the audience?

Dr. Joseph Vassalotti:

Well, it's great to be with you here today in kidney month, and I would just say that I also am proud to see patients. Patients inspire me. And I'm working from home today remotely, but communicating the latest science and trying to implement it in practice I think is an exciting thing today, particularly for people with diabetic kidney disease, people with diabetes who are at risk for kidney disease.

Carla Cox:

Thank you. And Dr. Ku, what would you like to add?

Dr. Elaine Ku:

I'm really delighted to be here today. I'm excited to hear questions about kidney disease in a setting of diabetes, and I look forward to speaking with many of you.

Carla Cox:

Great, thank you so much. Okay, so thank you. And as we are waiting for our callers and online listeners to chime in, I'm going to go ahead and kick off at the first question. What is the single most important thing people with diabetes can do to prevent kidney disease? That's a hard one.

Dr. Elaine Ku:

For me, a lot of what patients can do is really work on lifestyle and factors that they can easily modify and have control over. Those include things like changes in your diet as well as exercise and adopting a really healthy lifestyle.

Carla Cox:

Great. Dr. Vassalotti, do you have anything to add to that?

Dr. Joseph Vassalotti:

Well, first I want to say I think my wife would be proud that I didn't speak first, but I think it's great to know that if you have diabetes, that you're at risk for kidney disease. You have perceived risk is what we call that. So I think that if you have diabetes, doing the things that Dr. Ku just outlined is really important to help prevent the onset of kidney disease. And then if you have it, we can help figure out what we can do to help prevent it from getting worse.

Carla Cox:

Great. Okay. I'm going to start with Paula, and Paula is from Tucker, Georgia. Paula, you're on the line.

Paula:

Hi, I'm Paula Cosgrove from Tucker, Georgia. I just had an A1C, and it's 6.7 and I was glad about that, but my doctor's nurses said yesterday that I have type two, and this isn't about kidney disease, but I just wanted to ask a doctor, my white blood cells are slightly abnormal and my thyroid is messing up. I know you can take a pill for your thyroid, but I wondered if there was anything y'all knew about my white blood cells. It's slightly abnormal.

Dr. Joseph Vassalotti:

Well, I think that is something you should work with your clinician about. Certainly there are a lot of causes of elevated white blood count, could be an infection or something else. Some medications can cause an elevation in the white blood count, so I think that really is something you should talk with your clinician about further, and the same with the thyroid disease. But I think one thing I want... I think we have an opportunity here to say something very important, and that is even though your diabetes is controlled, your A1C is in the target range generally, there are also organ-protective medications for kidney disease that we'll talk about today. So the old concept of controlling the diabetes and controlling the blood pressure to prevent kidney disease is important, but now we're getting into another era or another pillar of prevention where we have, in addition to the lifestyle and the diabetes and the high blood pressure control, medications that are kidney and heart protective that we'll talk about later, I think.

Carla Cox:

Thank you. If you're just joining us, welcome to today's Ask the Experts Q&A, How to Prevent and Treat Kidney Disease. 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 can have the opportunity to ask your question live. To participate online, type in your name and question the field below the streaming player, press the Submit Question button, and your questions will come directly to us. Remember, today's topic is How to Prevent and Treat Kidney Disease. Let's remember to focus on that topic when asking a question. Okay, so here we go. Let's go to Linda, and Linda is from... Oh, doesn't say where she's from. Maybe she could tell us.

Linda:

Queens.

Carla Cox:

Linda, you're on the line.

Linda:

Queens. Thank you. Hi. Yes. The reason I'm asking the question is that I'm a diabetic over 33 years and that I hurt my back so I was getting back pain, so I didn't know if it was urinary tract. I gave them my urine and it came back traces of ketone protein and a few bacteria and squarum and calcium crystals, but negative for a urinary tract. So should I be concerned? Should I go to urologist or bring... I'm going to my diabetes doctor tomorrow, should I give her more urine? Do I have to worry about these few and traces?

Carla Cox:

Dr. Ku, you're on.

Dr. Elaine Ku:

So it sounds like you had a urine dip stick that was done, which is a test where you get some of the results that you just shared with us. Generally speaking, for patients with diabetes, if you don't know that you have kidney disease, it is recommended that you be screened for the presence of kidney disease, and that includes the blood test called a serum creatinine that helps us estimate your kidney function as kidney doctors, but also to quantify the amount approaching in the urine. And so if you are seeing your clinician and you have not had that screening, then that is recommended on a yearly basis, at least for patients who have diabetes. And the test that you had may not be specific enough to help us more accurately interpret what's going on.

Carla Cox:

Thank you. We have a question coming in from Jan Nutter from Norton, Ohio. Jan, you're on the line.

Jan:

I want to know why I should have hepatitis C shots if I have four stage kidney disease also with diabetes. My nephrologist suggested the three shots for hepatitis C.

Dr. Joseph Vassalotti:

Well, I guess I could take that. It's hepatitis B is vaccine, there is no hepatitis C vaccination currently. There is a hepatitis B, like boy or bravo, vaccination. So I think it's a hepatitis B vaccination that you're talking about. That's a series generally,, and that's recommended for people with kidney disease and it's especially monitored closely in dialysis clinics to help prevent the onset of new hepatitis B or to prevent spread of hepatitis B, so it's part of the care. Vaccination, I think we should think of vaccination as part of the care of someone with kidney disease, diabetic kidney disease. And there are a number of vaccinations that are recommended, including the annual influenza vaccine, the pneumococcal vaccine for adults, especially over age 50. And right now recently, COVID vaccination is strongly recommended for patients with diabetic kidney disease and patients with kidney failure who are treated with dialysis or kidney transplantation.

Carla Cox:

Thank you. We have a call coming in from Christie. Christie is from Chattanooga, Tennessee. Christie, you're on the line.

Christie:

Hello. Yes, thank you. My question is, if you already have chronic kidney disease, is there a way to reverse it? In other words, can you go, example, from stage three to stage two? Is there anything you can do to improve your current status?

Dr. Elaine Ku:

I think there are a variety of things that you can do in terms of helping prevent the kidney disease from getting worse, and in some cases the kidney function can improve. So I don't know the specifics about your diagnosis of having chronic kidney disease, but generally speaking, besides lifestyle modification and behavioral changes that you can adopt, there are a variety of medications that are really recommended for patients who have diabetic kidney disease. One of the newer ones that have been shown to be very effective are known as sodium glucose cotransporter inhibitors, and so in addition to that, there are also other medications if you have high blood pressure that can protect the kidney, especially if you have some protein in urine. So I think that there are a variety of actions that you can take in terms of managing your diabetes well, having daily exercise, refraining from smoking, but also talking to your doctor about some of the medication options that are now available, some of the newer ones particularly that may really protect your kidney function and prevent progression and potentially help improve your overall health status.

Carla Cox:

Thank you. So we have a question coming from Julie, and Julie is from Hawaii. Julie, you're on the line.

Julie:

Hi, thank you. I'm a type one diabetic for the last 45 years and I'm in stage two chronic kidney disease. And my question is, when I go to get my lab values done, the blood tests and urine tests every three months or so, the values of the eGFR and the ACR keep fluctuating. Sometimes I'll spill protein and sometimes I won't, so I was wondering why that fluctuation occurs and if there's any kind of a medicine for a type one that I can take to slow the progression of the disease.

Dr. Joseph Vassalotti:

Yeah, I think that's a great question. I think for the audience, whether you have type one or type two, having an annual test with the estimated GFR and the urine albumin to creatinine ratio, the blood test is called estimated GFR, that's like a percent of kidney function, if you will. It's not exactly a percent, but I think it's good to think of it that way. Less than 60 is considered to be kidney disease. The higher that number, the better it is. The lower that number, the more decreased the kidney function is. And the other test is called urine albumin to creatinine ratio, or albuminuria. That number less than 30 is considered to be normal, and above 30 is a sign of kidney disease. And so the lower that number is, the better. That's kind of a sign of kidney damage or inflammation of the blood vessels.

So you have some albumin in the urine and the normal level or you don't have kidney disease based on the estimated GFR. And the fluctuation, some of that is due to daily variation. We call that biological variation. Glucose control can definitely affect especially the albumin level in the urine. And I think specifically some of the medications that are indicated for type one diabetes with albuminuria, I think the first thing to think about is, if you have high blood pressure, would be ACE inhibitors or angiotensin receptor blockers. Those are the prils, like lisinopril as an example of an ACE inhibitor, and losartan as an example of an angiotensin receptor blocker. Those are kidney protective if there's albumin in the urine. Those are blood pressure medicines. And then the diabetes control I think is very important to help prevent or improve the albuminuria. You should work with your clinician about that and whether or not continuous glucose monitoring or insulin pump is something that is right for you.

Carla Cox:

So I have a question for you that I'd like you to explain to the audience, what are those two tests showing us? So you were great about giving us what the answer hopefully will be as far as numbers go, but what does GFR reflect, and what does albumin and the urine reflect?

Dr. Joseph Vassalotti:

Well, so the estimated GFR is a blood test that comes from the creatinine in the blood usually, and the creatinine is about 1.0 normally, and the higher that number, the lower the kidney function, so it's a little counterintuitive. The estimated GFR is a little bit easier to wrap your brain around because it's proportional to the kidney function. It's like a percent of kidney function. It's measuring the kidney function or the way the kidneys filter, and the kidneys do a lot of different things, but filtering the blood is one of the primary functions of the kidney. So you can think of it as the filtering power of the kidney. The albumin in the urine is not generally present in normal circumstances, and so if you have albumin in the urine, that's a marker of kidney damage or blood vessel inflammation. But it's important that the kidney damage that you have from albuminuria, we call it kidney damage, can be reversed.

It can be improved with things like better diabetes control, better blood pressure control. And then the foundation that we heard about from Dr. Ku of the lifestyle modification in addition to the blood pressure and diabetes control, we think about the kidney protective and cardiovascular protective medicines like the ACE inhibitors and the angiotensin receptor blockers for blood pressure, the SGLT2 inhibitors that are indicated for people with type two diabetes, and there's another drug, a drug called finerenone, it's a nonsteroidal mineralocorticoid receptor antagonist that is also kidney and cardiovascular protective for people with type two diabetes and albuminuria or albumin in the urine.

Carla Cox:

Thank you, that's very helpful. All right, we have a question coming in from Carla, and Carla is from Texas. Carla, you're on the line.

Carla:

Hello. Good afternoon to y'all. I called to see what symptoms, are there any symptoms that I should be watched at? I'm newly diagnosed with type two diabetic, and I was told what to do as far... Well, they told me to lose 60 pounds, and I'm halfway there respectfully, but I have my own personal goal of what I want to lose myself, but what symptoms should I be on the lookout for?

Dr. Elaine Ku:

Hi, Carla. First of all, congratulations. It sounds like you're trying to lose weight and you've lost quite a bit of weight. I think that's wonderful. With regards to your question about symptoms related to diabetic kidney disease, I would say that in the beginning oftentimes there are no symptoms, and that is why if you're newly diagnosed with diabetes, type two diabetes in particular, the recommendation is to see your doctor regularly and to at least perform annual screening for some of the tests that Dr. Vassalotti was just explaining to us.

That includes a serum creatinine, which we use to estimate the glomerular filtration rate or your level of kidney function as well as urine testing to check for albumin in the urine. Because in the very early stages when the kidneys may be damaged, but perhaps at milder levels, most patients don't necessarily have any symptoms. It's only until the later stages when you have kidney disease that many patients will begin to develop symptoms. And we want to really catch that before you develop symptoms and be able to work with patients to help prevent progression of disease before it gets to the state where you do have one or more symptoms.

Carla Cox:

So in a follow-up question to that is we've been talking about laboratory measurements, for a person with type one and a person with type two diabetes, when should those measurements start, and how often should they be done?

Dr. Joseph Vassalotti:

Well, for type one, it's generally recommended at five years after the diagnosis. That comes from clinical practice guidelines from the American Diabetes Association. And the reason for that is that the diagnosis of type one diabetes is generally not delayed because the symptoms are usually present earlier and the onset is usually earlier in life. And for type two diabetes, the detection may be delayed. So at the diagnosis of type two, immediately the annual testing is recommended. And I think it's important that we say annual testing is kind of a minimum recommendation. Your doctors may recommend more frequent testing depending on where you are on your journey.

Carla Cox:

Thank you. Okay. We have a question coming in from Thomas. He both wrote one in and is on the line, so I'm going to put him on the line because I think it's a great question. Thomas, you're on the line.

Thomas:

Hello.

Carla Cox:

Hi.

Thomas:

Yeah, I have a question. Is there any evidence that avoiding animal protein slows the progression of chronic kidney disease in diabetics?

Dr. Elaine Ku:

Thank you, Thomas, for your question. I think there is some evidence that increasing your intake of plant-based protein, particularly plant-based diets, and some studies have been shown to be protective against progression of kidney disease. It can be more challenging to adhere to depending on your dietary preferences. But generally speaking, the more plants and healthier foods that you can take, the more protective it will be in terms of protecting your kidneys, but also protecting your heart, since having kidney disease put you at risk for heart disease.

Carla Cox:

Thank you.

Dr. Joseph Vassalotti:

Can I add something here?

Carla Cox:

Sure.

Dr. Joseph Vassalotti:

I think that was great, what Dr. Ku said, but I think there's a lot of attention in the media about evil foods and magical foods, and I think that we should focus on the overall dietary pattern, that it's healthy, and that in general a plant-based diet is probably more healthy for you and probably will give you better diabetes control. And that processed foods or a diet that's heavy in processed foods will probably give you worse diabetes control and a higher risk of kidney disease. So it's a general pattern. I think it's important for us to emphasize that the role of the dietician or the diabetes educator and how they can help you fit your lifestyle and an individualized meal plan and to help you just fill a plate like you want to do and get through the day and enjoy the food in a healthy way. I think that's really important.

Carla Cox:

Thank you. There is a question from Maria, but apparently her line is breaking up, so I'm going to ask the question, Maria's from Florida. How is alcohol impacting kidney disease? Dr. Ku?

Dr. Elaine Ku:

Generally speaking, we do recommend what many other societies also recommend, which is to limit your alcohol intake. And so for men, that would be no more than two drinks per week, and for women, one drink. But generally speaking, we do recommend not to have excessive alcohol intake. I don't know if Dr. Vassalotti has anything to add to that.

Dr. Joseph Vassalotti:

I think alcohol probably is mainly harmful to the kidneys indirectly because heavy alcohol use elevates the blood pressure and is associated with hemorrhagic strokes or bleeding strokes. So I think heavy

alcohol use is something that should be avoided, and so avoiding alcohol or limiting the use I think is what's generally recommended.

Carla Cox:

Which is really good advice for everything, including social and emotional. Right? Okay. We have a question coming in from Elizabeth, and Elizabeth is from New York. Elizabeth, you're on the line.

Elizabeth:

Yes. Good afternoon. I'm 74 years old, and I've had diabetes for over 40 years. I was told in the last couple of years that I have chronic kidney disease, which turned to stage four, but now they put me on Farxiga, and I've been taking the Farxiga, and I'm getting better results. Now I'm stage three. So I'm wondering would I have to take this Farxiga for the rest of my life, or it's just a diuretic that I'm just going to take for maybe another year or so or just to see how well it takes care of the problem?

Dr. Joseph Vassalotti:

So-

Dr. Elaine Ku:

Go ahead.

Dr. Joseph Vassalotti:

Well, congratulations, Elizabeth, on managing your diabetes for so many decades. And being in New York, I think the Farxiga is called dapagliflozin. That's one of the SGLT2 inhibitor class or flozins that we've talked about today. These are kidney and cardiovascular protective medications. They reduce your risk of kidney failure about 30% to 40% in the randomized trials, like flipping a coin, whether patients who take Farxiga or a drug like it or another or a sugar pill or placebo. The other medicines in the class are Jardiance or empagliflozin and Invokana or canagliflozin. Those are the ones that have been studied during kidney trials. And that medication is generally recommended that you take as long as possible, as long as you can tolerate them, or until you need dialysis, and I hope you never do. That's generally what's recommended there.

That's how the trials were conducted, and that's how the FDA recommends their use. And if you have a medicine like dapagliflozin or Farxiga that reduces your risk of kidney failure by that much, you should try to stay on it because it's organ protective, and it also prevents your risk of heart failure hospitalization as well. And it may actually prolong survival as well in some of the trials. So I think it's really important to take that class of medications that's indicated for type two diabetes with kidney disease, especially if there's albumin in the urine, increase in albumin in the urine.

Carla Cox:

Thank you. We have a question from Susan. Susan is from New Jersey. Susan, you're on the line.

Susan:

Right. I got to go on this thing. Yeah. Hi. Yeah, I was diagnosed more than 10 years ago with diabetes, and just recently looking at my chart, I see that my creatinine was 1.43 and stage three, but no doctor ever said anything to me about this. It was just my observation looking at my medical chart. So how concerned should I be about this?

Dr. Elaine Ku:

Certainly I think it's important to work with your clinician, and I think it's great that you're being very vigilant and actually checking your own lab results and looking at it. I think that one value in itself may not necessarily be diagnostic, so it's important to look at the trend. And then if you do see a trend that your eGFR has been consistently lower than where we would consider the kidney function to be normal or near normal, then it's important to bring that up with your clinician and to discuss the reasons that that may be and what sort of protective interventions can be taken in order to protect you from having kidney disease or having progressive kidney disease.

Carla Cox:

Thank you. We have a question online coming in from Justin. What would you say the role of a pharmacist is in the prevention and treatment of kidney disease? It's a good question.

Dr. Joseph Vassalotti:

I think interdisciplinary care is kind of the secret sauce of kidney disease care, if you will. And a pharmacist I think plays an important role in helping you manage your medications, helping you manage your interactions with medications, helping you understand what the medications are used for. And then some of the medications can have high out-of-pocket costs, like the Farxiga that was mentioned before, the dapagliflozin. I'm a big fan of the class of medications, but they can have high out-of-pocket costs for the patient. I think the pharmacist can help you manage that high cost, how to access it, how to get the least expensive, in your pocket, access to the medication. So I think pharmacists can play an important role in addition to the diabetes educator, your primary care clinician, and others.

Carla Cox:

Thank you. I think pharmacists are underutilized. They can do a lot of education as well, which is very helpful. This question is coming in from Dorothy. And Dorothy, you're from Baltimore, Maryland. You're on the line.

Dorothy:

Thank you. I have diabetes type two, and my big question is that some of my blood and urine evaluations are a little off, but my big question is I'm on long-term Prilosec and I've read that it can affect your kidneys. And I wondered if I should really be concerned about that. I cannot stop it. There is no way, unless there's another medicine that would work as well. And I don't have GERD, I have bowel reflux, which then makes my stomach feel really tender. That's why I'm on it. Thank you.

Dr. Elaine Ku:

So there has been some observational studies that have linked medications like Prilosec, which is a medication that you can actually get over the counter, in addition to a variety of other ones that patients often take to treat upset stomach or a heartburn or reflux. And so in some observational studies, long-term use of medications like Prilosec has been associated with an increased risk of developing kidney disease. But if you really need it for your symptoms and you're not able to stop it, then I think that having a discussion with your clinician would be important to try to weigh the risks and the benefits. Most of these studies are observational, meaning that there haven't been large clinical trials necessarily saying that you have to come off your Prilosec after X number of years of use. And so there are some subset of patients of mine who just really need it for treatment of their symptoms, and

personally I think that's okay if that's the only way to manage their gastrointestinal symptoms. I don't know if Dr. Vassalotti practices differently.

Dr. Joseph Vassalotti:

Yes, I think the most important thing... I agree with what Dr. Ku said. I think the most important thing is you should work with your doctors, and we're not here to practice medicine. But the options for you to consider with your doctors would be, can I try a different class of medicine like the H2 blockers, like famotidine is the class, is that safe for me to try? So I wouldn't do that just based on this interaction, but talking to the doctors, is that a safe alternative> and are there lifestyle modifications that I can do to prevent my symptoms that might be helpful as well?

And if you want to try those, you could, and you could keep the alternative proton pump inhibitor class, we call it, Prilosec, on hand. Or you could just take the risk. And I think it's important to say that there is a risk, but I think it's relatively small in the big scheme. So ideally it would be good to try a different medication or stop it. That would be an ideal situation, but it's a relatively small risk, and if you can't do without it, then you just take that small risk and move on.

Carla Cox:

Thank you. The question coming in from Diane. Diane, you are on the line. Diane is from Seattle.

Diane:

Okay. I'm 79, and I've had pre-diabetes for a number of years but was not taking any medication for it. But now the A1C was 7.1 and they put me on metformin. My ACR was 40, which was flagged as high. And I wonder if that's considered kidney disease and what I can do to not impair my kidneys.

Dr. Joseph Vassalotti:

Well, I guess I can... I think in general the diagnosis of diabetes is usually an A1C of 6.5 or higher, so you may have developed type two diabetes, so I think that's one thing to talk to your doctors about. The albumin is higher than normal, so it's in the range of what we call kidney disease. It's a modest elevation. The less than 30 is what we consider to be normal or close to normal. 30 to 300 is kind of the intermediate range, and then severely elevated is above 300. I think it's important that I emphasize, which I haven't so far, that you need to have repeat values that are present for three or more months for us to call it CKD or chronic kidney disease. So certainly you would want to repeat that value, and I think it's important to work on lifestyle modification, perhaps with a dietician and your clinician in addition to the metformin and to see if that improves your A1C as well as the albuminuria.

Carla Cox:

Thank you. So we have a question coming in from Diane. Diane is from my home state of Utah. Diane?

Diane:

Hi. So my question is, so how can a person present kidney disease? I'm on type one diabetic, and I just want to know what to watch for with kidney disease.

Carla Cox:

Dr. Ku, I think you outlined some things earlier, but let's look specifically at type one diabetes, as they are at risk. What kinds of things can she do to prevent developing kidney disease?

Dr. Elaine Ku:

Sorry, can you hear me? I can't hear much. Can you all hear me?

Carla Cox:

Yes.

Dr. Elaine Ku:

Oh. I hear a lot of static, so I couldn't actually hear.

Carla Cox:

Dr. Vassalotti, you want to answer that question?

Dr. Joseph Vassalotti:

Sure, yes. I think for type one diabetes, the most important thing would be to work with your clinicians for diabetes control. So to control the diabetes, to smooth the diabetes control, that may involve the A1C, that may involve continuous glucose monitoring, I think, which is more and more being used as a kind of an exciting way of controlling type one diabetes and whether an insulin pump and a closed system or something that's worth considering for you. So I think glycemic control, glucose control is very important. Do you have high blood pressure or not? If you have high blood pressure, then controlling the blood pressure will help prevent kidney disease, and using kidney protective blood pressure medicines called ACE inhibitors or angiotensin receptor blockers, like lisinopril is an example of an ACE inhibitor, and losartan is example of a angiotensin receptor blocker. These are blood pressure medicines that are proven in diabetes, in type one and type two, to be kidney protective and cardiovascular protective.

Carla Cox:

And I think the other pieces are lifestyle choices, which we discussed before. Exercise has been shown to be beneficial for the whole body, including prevention of any kind of complications, along with eating a food plan that's like the Mediterranean diet or well-balanced kind of food plan. So lifestyle things can make a difference as well. So those are things to consider. They're not clinical numbers, so it's a little harder to gear towards them, but I think those are very important things. And talking to a diabetes educator, a dietician may help you as well.

Dr. Joseph Vassalotti:

Thank you for bringing that up.

Carla Cox:

Yeah, so I think this is a constant theme here. We have a question online from Barbara, and she says, "How to keep my kidney disease stage three from getting any worse."

Dr. Elaine Ku:

Can you hear me okay?

Carla Cox:

Yes, we can.

Dr. Elaine Ku:

Oh, awesome. I apologize, my headphones ran out of battery. But I think we've talked about many of the things that one can do to try to help prevent the progression of your kidney disease. Lifestyle management, we just talked about. Healthy behaviors, refraining from drinking too much alcohol, and two drinks per day for men, one drink per day for women, not using tobacco, daily exercise, which 150 minutes per week on average of moderate exercise. Those are all lifestyle interventions that you can adopt to help stay healthy and prevent the progression of your kidney disease.

But there are also a number of things that you can work on with your clinician in order to try to prevent the progression of your kidney disease. Those include keeping your A1C and your diabetes well controlled within a reasonable range, controlling your blood pressure if you have high blood pressure, asking your doctor about medications that we've talked about a couple of times on this call, including the SGLT2 inhibitors, as well as a class of blood pressure medications known as angiotensin receptor blockers or ACE inhibitors. And really just working with your doctor and your team and a dietician, if one's available, in a really multidisciplinary approach to self-manage your diabetes and your kidney disease can help prevent its progression.

Carla Cox:

Thank you. So we have a question coming in from Gail, and Gail is from New York. Gail, you are on the line.

Gail:

Hello. I was diagnosed with diabetes about 10 years ago, type two. And recently in the last six months got a diagnosis of chronic... I'm sorry, diabetes 10 years ago and recently got a diagnosis of chronic kidney disease about six months ago. My potassium was high, so the doctor wanted me to have a diet limited in that, and I'm just finding it kind of contrary to each other. When with my diabetic diet, I was trying to do more vegetables and things that were healthy, whereas a lot of those things on the low potassium diet are prohibited because they're so high in potassium. Things like brown rice is higher than white rice and the vegetables and whole wheat is worse than regular white bread. I just wondered if you had any thoughts on that.

Dr. Joseph Vassalotti:

Yeah. Well, I think it's hard. The potassium restricted diet is challenging because so many of the foods you like are high in potassium, and then you may be on a low sodium diet for hypertension, Gail, and you might be... I'm sure you're on the diabetes diet as well. So there's a lot of things to process. I think this is where working with a dietician or diabetes educator, a clinician like me, I can say something like ABCPT, avocados, bananas, citrus fruits and their juices, potatoes, potato products, and tomatoes. That's kind of my quick conversation about foods that I would like you to limit or avoid potentially, depending on how the potassium is going. But I think that there are many fruits and vegetables that are low in potassium that you can eat, like most berries and apples, for example. But I think people like me know less than the dieticians, and I think having a dietician, a registered dietician, or a diabetes educator, work through your diet to make sure you're getting food that's both healthy and will help you keep your potassium down.

And if you really like avocados, for example, and that's really important to you, maybe we can figure a way where you could get that avocado into your diet instead of feel like it's a forbidden. So I think that's

really the best advice I could give to do that. And then I think for some patients it becomes intractable, the high potassium can't be treated with the diet alone and we have to give medications that are called potassium binders. These are generally powders that are mixed with water or other drinks that are low in potassium, usually daily to help bind potassium. So sometimes that becomes an option and that sometimes can allow you to liberalize the diet. And so that sacrifice of that one extra medication might be worth it for you for your lifestyle. But these are things that you should work through with hopefully your care team, which includes the dietician and the clinicians.

Carla Cox:

Thank you. I have a question, completely different kind of question, but I think it's a good one. And it comes in from Alex, and Alex is from Baltimore, Maryland. Alex, you're on the line.

Alex:

Hello?

Carla Cox:

Hello.

Alex:

Can you hear me?

Carla Cox:

Yes. What is your question?

Alex:

Okay, sorry about that. I am about to graduate NP school. I'm also a dialysis nurse and I'm very interested in going into the field, and I was wondering if you have any resources specifically about kidney disease and diagnostic tests that you reference or enjoy in terms of your own practice?

Dr. Elaine Ku:

I personally think there are a number of really great online resources that you can look at in terms of managing diabetic kidney disease. There are some nice websites, for example, about how to modify your diet in order to lower your potassium, et cetera, from the National Kidney Foundation. And so I've often referred patients to those websites for advice. In addition, certainly the American Diabetes Association, American Heart Association also has a number of useful tips and also guides about how to reduce your risk of kidney disease that are potentially useful. Not sure if Dr. Vassalotti has other resources that he's used in his practice.

Dr. Joseph Vassalotti:

Yes, I think the clinical practice guidelines might be a good place to start, where a lot of the things that we talked about come from the clinical practice guidelines. American Diabetes Association has the standards of medical care that's in Diabetes Care every January. The National Kidney Foundation has something called KDOQI, Kidney Disease Outcomes Quality Initiative. You can see that at kidney.org, W-W-W dot K-I-D-N-E-Y dot O-R-G. There's also an organization called KDIGO, Kidney Disease Improving Global Outcomes, K-D-I-G-O. And that, with the American Diabetes Association, has a consensus

statement on diabetic kidney disease or CKD in diabetes that I think would be worth reading. And these are exciting times because right now you're replacing, Alex, in Baltimore, you're replacing kidney function with dialysis, which is important and lifesaving. But we're also at the same time preventing the need for dialysis, so we're preventing the need for dialysis in addition to replacing. And I think it's important to our country and our society that we do both.

Carla Cox:

Thank you. So we have time for one more question, and I'm going to have Emily go online. Emily is from Maryland.

Emily:

Hello, can you hear me?

Carla Cox:

Yes, I can.

Emily:

I am a type two diabetic since 2008. I'm also a person who suffers from kidney stones. So I wonder what impact kidney stones have with regard to kidney disease.

Carla Cox:

Dr. Ku, you want to try that one?

Dr. Elaine Ku:

So patients who have kidney stones, depending on the burden of kidney stones, you're certainly at risk for kidney disease. And so I'm not sure what the exact circumstances of your kidney stones are, but working with your clinician to make sure that you are getting your kidney function checked is important. And then, of course, having diabetes is a risk factor for kidney disease. And so I do think that it's great that you're recognizing your risk factors for potential kidney dysfunction and that to monitoring your kidney function would be highly advised.

Dr. Joseph Vassalotti:

Yeah, there's one-

Carla Cox:

Go ahead. No, go ahead.

Dr. Joseph Vassalotti:

And the one thing I also think about with that is if you have type two diabetes and kidney stones, I wonder about your healthy weight. So I think that's something with the lifestyle, that healthy diet, the physical activity, and perhaps a dietician or diabetes educator, you can work on that if that's a problem. Then I would try to put this in a positive light that you can prevent complications and you might feel better if you can work on maintaining a healthy weight. And again, if that's an issue for you.

Carla Cox:

Thank you. So this wraps up our last question for this session. A few items before we close Dr. Vassalotti, could you give us two key takeaway points that you want to make sure our listeners take home from today's discussion?

Dr. Joseph Vassalotti:

Well, number one, be the captain of your ship. And captain of your ship means your healthcare, navigate it. You want to be in charge, you want to interact with your clinicians, you want to help them communicate with each other when they don't foster that communication, that interdisciplinary care. And the second thing I would say is to know that if you have diabetes that kidney disease is a potential risk for you in the future, and that you should work to control your diabetes with lifestyle changes and some of the other interventions we talked about today to help prevent it from worsening in that. The two tests you should get are a blood test called eGFR, and a urine test called urine albumin to creatinine ratio for albumin in the urine. Thank you.

Carla Cox:

Dr. Ku, do you have another tip to add to conclude our session today?

Dr. Elaine Ku:

I absolutely agree with what Dr. Vassalotti has said. I think being proactive is super important, but also recognizing that there's lots of support and this is really a team effort that you are a part of and working with, whether it's the dieticians, the pharmacists, the clinicians to come up with a plan that really works with you, both for addressing lifestyle factors, as well as therapies that are available to you. And asking questions is really important. And I really think that as a team we'll be able to go so much further in the fight against having progression of kidney disease when you have diabetes.

Carla Cox:

Thank you. Great tips. Great take-homes. To help you feel confident about your ability to manage your diabetes, heart disease, and kidney disease, we encourage you and your loved ones, too, as they've mentioned, talk to your doctor and dietician about your risk for heart disease, stroke, and kidney disease. Go to knowdiabetesbyheart.org and learn more. Register for the next event at diabetes.org/experts. Sign up for diabetes education near you and sign up for ADA's free Living with Type Two Diabetes program. Links to these resources can be found on our registration webpage, diabetes.org/experts. Thank you all for the great questions you called in and wrote in with. We are sorry we are unable to get to all of them 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 short survey to help us with future planning for our events. Thriving with diabetes takes a team, and we're here to support you. Special thanks to our experts, Dr. Vassalotti and Dr. Ku. I am Carla Cox, and on behalf of the ADA team, we want to thank you for joining us today, and we look forward to connecting with you at our next events. They are join us for more events at April 11, Labs, Scans, and More. May nine, Managing Your Blood Pressure May Help Preserve Your Heart and Kidneys. And please visit our website for more information at diabetes.org/experts and register today. And another great event coming up for kidney disease, and you were all interested, is kidney disease is the fastest growing non-contagious disease in the US currently affecting 37 million Americans.

This kidney month, the American Kidney Fund is encouraging everyone to take action on kidney health by registering for Kidney Action Week, hosted from March 20 to 24. Kidney Action Week is a free week-long virtual event uniting the kidney community with a variety of sessions featuring leading experts and

advocates that will empower and educate. Register today at kidneyactionweek.org. That's kidneyactionweek.org. If you have any questions about this event, please email askada@diabetes.org. Include, ask the experts Q&A in your subject line. And thank you for joining us. And now please stay online for our short survey.

Thank you for participating in the American Diabetes Association's, Ask the Experts 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. Question one, this event met my expectations today. For yes, press one. For no, press two. And for unsure, press three. Once again, question one, this event met my expectations today. For yes, press one. For no, press two. And for unsure, press three. If you feel you could use some 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. Question two, I will attend another Ask the Experts event. For yes, press one. For no, press two. And for unsure, press three. Question number two, I will attend another Ask the Experts event. For yes, press one. For no, press two. And for unsure, press three. You can find delicious and healthy recipes and menus to enhance your eating, check out the website www.diabetesfoodhub.org.

Question number three, this event improved my knowledge of kidney disease for yes, press one. For no, press two. And for unsure, press three. Question three. This event improved my knowledge of kidney disease. For yes, press one. For no, press two. And for unsure, press three. Did you know that there are approximately 37 million people with diabetes? You are not alone. Question number four, I intend to use the knowledge I gained in my and my loved one's next appointment with a healthcare professional. For yes, press one. For no, press two. And for unsure, press three. Question number four again, I intend to use the knowledge I gained in my and my loved one's next appointment with a healthcare professional. For yes, press one. For no, press two. And for unsure, press three. Keeping your glucose within target range of 70 to 180 70% or more of the time is in an international recommendation for diabetes management. Consider asking your provider about getting a continuous glucose monitor to help you manage your glucose.

Question number five, before this event, I felt confident talking to a healthcare professional about my and my loved one's increased risk of heart disease and stroke. For yes, press one. For no, press two. And for unsure, press three. Once again, question number five, before this event, I felt confident talking to a healthcare professional about my and my loved one's increased risk of heart disease and stroke. For yes, press one. For no, press two. And 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.

And our final question, question number six. After this event, I feel confident talking to a healthcare professional about my loved one's increased risk of heart disease and stroke and kidney disease. For yes, press one. For no, press two. And for unsure, press three. Our final question again, number six, after this event, I feel confident talking to a healthcare professional about my and my loved one's increased risk of heart disease, stroke, or kidney disease. For yes, press one. For no, press two. And for unsure, press three. We sincerely appreciate your time and look forward to engaging with you on a future Ask the Experts event. Please visit diabetes.org/experts to learn about upcoming events.