CARDIOMETABOLIC HEALTH CONGRESS

Webinar #1: How to Initiate the Conversation About Obesity in Patients with Type 2 Diabetes

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DR. ECKEL: Hi. I'm Bob Eckel, one of the co-chairs of Cardiometabolic Health Congress which is now in its 17th year after inception, and I am privileged to present to you, cochairing with Donna Ryan, a program entitled Optimizing Long-Term Weight Loss in Patients with Type II Diabetes: Advances in Expert Perspectives. We are sharing a series of six webinars with you, and I am going to begin with one today introducing to you Dr. Robert Kushner who is a Professor in the Departments of Medicine and Medical Education at Northwestern University's Feinberg School of Medicine. And he is also director for the Center for Lifestyle Medicine. I have ultimately had the privilege of working with Bob for decades now. In the talk title, he is going to give us today, **How to Initiate the Conversation About Obesity in Patients with Type II Diabetes.** Thank you for joining us, and for your attention to this presentation.

DR. KUSHNER: Thank you, Bob, for the introduction. I am excited to be with you today to talk about this combination epidemic of obesity and diabetes. We wanted to present it as a case because I think it is most relevant thinking about a patient that we may be seeing in our own consultation room.

So this is a patient who has type 2 diabetes for five years who says that I know my weight is a contributing factor. I am on two anti-diabetes medications. My hemoglobin A1C is not where I want it to be. I have tried several diets on my own in the past, and I am able to lose 20-30 pounds, but it always comes back. This is very frustrating, and I don't know what to do.

I am sure this is a common scenario that you are familiar with, but, what I want to cover in this short presentation is not only what is the linkage between obesity and diabetes, we have to have that understanding in order to convey it to our patients, but more so, how do we talk to our patients? How do we bring it up so that we can help that patient engage in increased self-care for weight loss which will also improve the diabetes.

I want to start with just one slide on epidemiology to remind you of how common both diabetes and obesity occur together. And this data comes from NHANES, looking from 1999 to 2018. And the first thing I am showing you is the prevalence of type 2 diabetes from 1999 all the way up to 2018. And you see there is a slow, steady gain among the adult population, from just under 10% around twenty years ago, or so, now up to 14.3%. The next data I am going to superimpose is what percent of those patients with diabetes also have coexisting obesity. It turns out that 60-80% of people with diabetes have a BMI of over 30. That's how we definite obesity for epidemiologic points of view. Now, if you added how many of these individuals are overweight or have obesity, I get you now up to 95 to almost 100%. So, they coexist. And if you think about your own patient care, that is the type of patient that typically comes in.

This combination of obesity and diabetes has been coined **diabesity**, and it fits this definition of syndemic, and I am not sure how many of you have heard, including you, Bob,

what syndemic is. But, it captures this connection so well. And a syndemic, or synergistic epidemic involves the clustering of two more diseases within a population, the biological, social, and psychological interaction of those diseases in the large-scale social forces that precipitate disease clustering in the first place. So this, to me, really solidifies that we ought to be thinking about both of these diseases at the same time, and thinking of targets that will treat both of them at the same time.

Now here is a question that we will come back and address later, and that is, which of the following obesity phenotypes describes the highest risk for developing cardiometabolic disease? We already said that obesity is common among patients with diabetes. But can you fine-tune your risk or assessment or screening of patients who are at the highest risk? So, the answers are, is it a patient with lower body fat distribution on exam? A patient with upper body fat distribution on exam? Or a patient with a history of childhood onset weight gain? Or a history of adult-onset weight gain? Think about that, and we will come back and answer that.

What the answer is, which I am going to give you now, but we will discuss it a little bit more later, is it's the patient with upper body fat distribution. It's visceral fat within the abdominal cavity that infiltrates the liver and the pancreas and the whole visceral within the abdominal cavity, and it is called central visceral adiposity. That is the phenotype that is more likely to have insulin resistance, glucose intolerance, and developing type 2 diabetes, as well as other metabolic problems like abnormal lipid metabolism or high blood pressure, increased inflammatory markers, which then goes on to cause the #1 cause of death in our country, as well as globally, is cardiovascular death. So, that's the sequence, and that's the phenotype that we need to be looking for when we are screening for patients.

Now the good news is, not only for obesity, but also for diabetes, is that weight loss improves the metabolic dysfunction. There is very good data that weight loss improves insulin sensitivity, muscle insulin sensitivity, muscle insulin sensitivity and adipose insulin sensitivity. It improves all three. Also, depending upon how much weight you lose, it will improve liver triglycerides for those patients with fatty liver disease, or hepatic steatosis, reduces abdominal fat, and inflammation. And patients, of course, don't understand that, nor do we routinely measure those improvements. But, what we do see are clinically related improvements in symptoms and signs, and that is what patients are aware of. So we know that very little weight loss is 5-10%, which is quite doable these days with the agents that we have, combined with lifestyle modification will improve blood sugar and reduce the risk of developing type 2 diabetes as well as improve the lives and metabolic abnormalities of those with type 2 diabetes. We know it improves blood pressure. It improves blood lipids, particularly triglycerides. A little more weight loss will improve obstructive sleep apnea, and, of course, quality of life. Now, reduction in cardiovascular mortality you need much more weight loss, often seen with bariatric surgery, but we certainly know the intermediary markers, which I just mentioned, are improving and are likely to improve mortality,

depending upon how much weight loss someone achieves, and maintenance of that weight loss.

Bob, I think the best data that I am able to find that really illustrates the benefit of weight loss comes from the LOOK AHEAD study. And, as all of you are probably familiar, it is in individuals with type 2 diabetes and obesity who were randomized to an intervention group of lifestyle intervention, or an education group. Now, we are not looking at which randomized group they are. What we are looking at, however, across the X axis is dividing these individuals in the trial into how much they either gained, or what percent of weight loss they've lost, from the left at the bottom, either gaining more than 2% of body weight, or losing more at 15% or more body weight, and what the effect is on reduction in hemoglobin A1C on the left, or fasting blood sugar on the right. And it is this really beautiful dose-response curve that the more weight loss you achieve, the greater the improvement in diabetes markers like hemoglobin A1C and fasting blood glucose.

This is set up for the same X and Y axes, but here what I am looking at on the left is change in blood pressure, both systolic and diastolic, and on the right the improvement in triglycerides. You see this same dose response curve, particularly for triglycerides where you have a 60 mg./dl. reduction in those that are losing 15% or more body weight. And for blood pressure you see a lower grade of reduction in the systolic blood pressure. The diastolic blood, again, weight loss is driving this improvement in these metabolic parameters that are driven by an improvement in diet as well as physical activity.

Now, it is also important to note that patients rarely come in with just diabetes, and that is all you focus in on. And we now know that when patients have obesity, they are at risk of developing impairment in multiple organ systems, starting with psychological issues like depression, neurological issues like dementia, or pseudotumor cerebri, also called benign intracranial hypertension, cardiac issues like asthma. We talked about hypertension already. GERD is very subject to increased belly fat. Nephropathy, menstrual irregularities in women, as well as infertility, all the way down to arthritis and degenerative joint disease of the knees and hips. So, we have to take a good review of systems and history when we are talking to patients who present with obesity, in addition to the focus of this seminar series, which is type 2 diabetes.

We also know, and I alluded to this before, that a certain amount of weight loss is needed to improve these comorbidities. A little bit of weight loss you already see an improvement in glycemia and triglycerides, like we already saw from the Look Ahead trial. With a little more weight loss, you will see an improvement in hepatic steatosis. More weight loss you see an improvement in fatty liver disease and sleep apnea. And with more weight loss, even further reduction in cardiovascular events, and remission of type 2 diabetes. So, when we see patients, we need to think of this as what is it we are trying to achieve from a comorbid point of view, which gives us some information about how aggressive we need to be to help people lose weight.

Now, treatment of obesity has made it into the ADA guidelines for diabetes, and this is the latest guideline from 2022, and it starts off with diet, physical activity, and behavioral therapy should be used to achieve and maintain a 5% weight loss, or more with patients with type 2 diabetes. But I want to use this slide to change and shift into what I want to discuss now, Bob, and that is communication, which gets back to our case. How do you bring up the issue of weight management in a patient who presents and you've been treating for types 2 diabetes, and that gets down to communication style.

And, in a second bullet point, what they highlight is to use person-centered nonjudgmental language that fosters collaboration between patients and providers, using people-first language. And I talk about this all the time when I do CME. We don't want to say a patient is diabetic or epileptic, or autistic, or cancerous, right? We wouldn't even think about saying that to a patient. What that is called is labeling. However, it is often we will say I have this obese patient. And I want you all to remember that obesity is a condition, or disease, just like diabetes, and we don't want to label a person with that disease. That is a person-centered communication style. And that is really what is highlighted in the ADA guidelines.

Now here is a second question we will come back and ask and answer later. And the question is which of the following is the best initial approach to discuss body weight with your patient. Is it to inform them that they must lose weight using a sensitive tone? Ask if this is a good time to discuss their weight? Discuss the hazards of obesity and continue to weight gain? Or recommend that they take action today to control their weight? What is the best way to approach it?

Well, we are informed by using a framework that we are probably all familiar with. It was developed initially for helping patients regarding smoking cessation, and adapted a little bit later for other substances of misuse like alcohol. It is called the Five As. We have adopted the Five As to apply it to obesity and changed the first aid to ASK. Ask permission to discuss your patient's body weight and their preferred term. The way I typically say it is, is this a good time to talk about your weight? Because you really need to have an open, transparent, nonjudgmental conversation with the patient, and, by asking permission, you are being inquisitive, you are showing interest in the patient, and it is up to them in order to accept your invitation.

Now many of you would ask, well I don't ask permission to talk about hypertension. Why should I ask permission about obesity? That is because obesity is unlike almost any other condition, or at least it is similar to other conditions that are sensitive and subject to bias, stigma, and discrimination. Patients are feeling that, and they have a legacy of feeling that when they work with other health care providers. So, asking permission is very helpful. And then you can go on and frame your encounter with assess, advise, agree, assist, and arrange, according to how you normally see a patient.

So, I mentioned this a little bit on the last slide, and I just want to come back to it to make sure everyone really understands what the definitions are of weight bias and stigma. This is probably one of the last areas in medicine that we still have to conquer. I think the whole idea of stigmatizing someone for depression, or stigmatizing someone for alcohol misuse, or narcotic use really doesn't exist very often because we understand those are diseases of addiction or mental health issues that are worthy of our attention and treatment. That is not necessarily so for obesity, though, because we have our own biases that we bring to the table as we think about people who struggle with their weight. And I just want to read out loud the three definitions that you should be aware of. One is weight bias, which is negative attitudes towards a person because of their weight. It has to get back to that person's first language. An obese patient. You harbor these internal attitudes. Second is weight stigma. And those are stereotypes and labels assigned to people who have obesity. If you see someone who is overweight in the cafeteria, often we will say, well, why are they having a hamburger. Look how overweight they are. You stereotype them like they should be eating healthier even though they get hungry, and we eat hamburgers as well, we really should not blame them for something like that. And the last is weight discrimination. Actions taken against people who have obesity can cause exclusion or inequalities. There is a whole literature filled with individuals who suffer from obesity, who have lower income, marriage rates are different, income rates are different, socialization is different, all because of these three biases and stigma and discrimination.

This information on weight bias internalization has come to light over the past five to ten years. And it something that is so important for us to be aware of. Not only is it wrong to demonstrate explicit or external bias towards an individual, but we now know that that bias is often internalized in an individual who is receiving that bias. These would be individuals with obesity. Because it causes ongoing stress when they are being stigmatized all the time. Which, towards the left, the first bucket can cause change in eating and physical activity behaviors, like actually worsen binge eating and increase caloric intake. The ongoing stress which is called allostatic load - stress that never goes away – can cause physiologic reactivity, increase in cortisol, C-reactive protein which may lead to worsening diabetes as well as blood pressure, and it affects health care services. If you are stigmatized by a health care provider, you are not going to go back and see that health care provider because of body shaming. So they are going to get less preventive services, less screening like a colonoscopy or health exam, less blood pressure checks, less often to go see a doctor for diabetes if they are always blamed for their medical problems because of their weight. And that causes ongoing distress psychologically and physiologically, and weight gain. So, it turns into a vicious circle. So, the next time you see a patient with obesity, just think about how they are feeling when they are constantly being berated about their weight. This is called weight bias internalization.

Now, I want to end up, Bob, with two slides. And these are great recommendations that come from the Rudd Center for Food Policy and Obesity. And these are recommendations

for health professionals when you see someone who comes in your office with obesity, and you haven't really been thinking about this. You want to consider a patient's previous negative experiences, which are quite common because of other providers they may see, recognize that having obesity is a product of many factors – genetics, biology, physiology, the built environment, the socioeconomic factors that lead to poor access of good quality food, as an example. Explore all causes of presenting problems, not just body weight. When a patient comes in with a cough, or asthma, the first thing out of your mouth shouldn't be, you know, if you weren't over weight so much, your asthma would be better. That is not what they are seeing you for, and they can develop problems that are independent of their weight. Recognize that many patients have tried to lose weight repeatedly. Emphasize the importance of behavior change rather than weight. And this is important. Weight is an outcome, a measurement. Weight is not a behavior. So, rather than just saying, I want you to lose weight, you want to say, I'd like you to eat healthier, choose healthier foods, get more physical activity. And the outcome of that is losing weight. You don't just lose weight as a behavior. Acknowledge the difficulty making lifestyle changes. It is very hard. There is a lot of inertia in making changes, a lot of obstacles. People are often ambivalent about making changes. And, lastly, recognize the small weight losses can improve health.

And, Bob, this is the very last slide, and I want to end on this. These are recommendations for health professionals, questions you can ask yourself to identify your own attitudes. And, trust me, we all have attitudes and implicit bias when it comes to a lot of health issues. Obesity is among them.

And I just want to read these to you as I end up, because I think they are very important for you to be asking yourself.

1. Do I make assumptions on weight regarding character, intelligence, professional success, health status, or like behaviors?
2. Am I comfortable working with people of all shapes and sizes?
3. Do I give appropriate feedback to encourage healthful behavior change?
4. Am I sensitive to the needs and concerns of individuals with obesity?
5. Do I treat the individual, or only the condition?

So, these are just great questions to ask yourself. So, the next time you encounter a patient like the one we started off with, who has type 2 diabetes, has lost weight in the past, but is struggling, is asking you for help because they are confused, you can approach the situation by asking, "Is this a good time to talk about weight, since you brought it up?" And having a sensitive, empathetic tone, and inquisitiveness to really understand what is going on with this patient, to walk in their shoes, and to be a support for them, and part of the solution, not part of the ongoing problem.

So, Bob, I am going to end there. And I think we want to tackle the two questions?

DR. ECKEL: Okay, thanks very much, Bob. It's always an outstanding presentation, and you really condensed a lot of important material into a very short time segment.

So this question as Bob posed earlier, which of the following obesity phenotypes describes the highest risk for developing cardiometabolic disease? And I think he has already answered that for you. It's item #1, lower body type distribution at physical exam, right? No. It's item #2, upper body fat distribution on physical examination.

Bob, mechanisms. You talked about excess intraabdominal fat or visceral fat, and optimally why is that body fat distribution so important and leading to onset of type 2 diabetes, and also other cardio-renal metabolic diseases that follow?

DR. KUSHNER: Yeah, it turns out, Bob, that the fat within the abdominal cavity that we call visceral fat is biologically quite different than subcutaneous fat that you could biopsy through the scan, or an individual has a lower body fat distribution, hips, thighs, and buttocks. It's a more benign energy storage depot than the fat in the middle part of the body. It's more biologically active, and it releases adipokines and cytokines, and other types of products that circulate through endocrine faction, or paracrine faction in order to affect distant organs like muscle, regarding insulin sensitivity. So, it's an inflammatory tissue that affects many other organ beds.

DR. ECKEL: And, ultimately, I think this leads to increasing insulin resistance, which I think in the setting of type 2 diabetes ultimately stresses that beta cell, and ultimately they become relatively insulin deficient. So, intra-abdominal fat is our big concern. And you know, women can put it either place. But once the menopause occurs, typically both men and women tend to gain additional waist circumference and intra-abdominal fat. So that is why we see more diabetes, particularly weight-related, as people get older.

Next question, Bob.

DR. KUSHNER: Bob, just before we go, I want to add one more thing. And that is the next step after answering this question, which we didn't pose to everyone, is, well, how do I measure, how do I know someone has increased body fat distribution in the upper depot? And the way you know it is you do a waist circumference. It's that physical exam that has been lost in the shuffle; not a lot of people do it. So, you could do a waist circumference, typically at the anterior superior iliac crest. There's a bone landmark, and the higher the level, the higher the risk of having visceral fat. For at least Caucasian population, if a woman with a waist circumference over 35 inches, a man over 40 inches, and a BMI of under 35. That's the group that we typically do a waist circumference.

DR. ECKEL: Yeah. In general, someone comes in with a BMI of 40 or 45, the waist circumference becomes a bit redundant under the circumstances, don't you think? But

those people who are in the overweight category, or maybe BMI is a little bit above 30, up to 35, that waist circumference may be meaningful information.

Let's go to the next question.

So, Bob has posed to you, which of the following is the best initial approach to discuss body weight with your patient? Inform them that they need to lose weight using a sensitive tone, of course? Ask if it is a good time? Discuss the hazards of obesity and continued weight gain? Or, recommend that they take action today to control their weight?

So, Bob, you kind of answered this one, too. This patient actually came to you saying I think my diabetes may be related to my excess weight. So that ask becomes pretty easy here, doesn't it?

DR. KUSHNER: Yes, it does. And I threw you a softball, Bob, on that one, because the patient is expressing frustration, but many patients, because of this legacy effect of being chastised and shamed and not knowing how the health care provider is going to respond to questions about their weight, they may never bring it up. It's like the Clinton thing – don't ask, don't tell. You know, in the military. So, I know you're overweight. You know you're overweight. But we are not going to talk about it today during our encounter. So, you want to proactively bring it up, knowing all the information I've just presented to you over the past twenty minutes, and say, is this a good time to talk about you weight because your weight is likely to have an effect on your diabetes, and will improve with weight loss. What do you think?

DR. ECKEL: You know, the approach to the obese patient in the clinic is something we learn along the way. But, often, I feel like a good history and physical exam in an obese-type patient takes at least 45 minutes, typically 60 minutes, because it really requires an understanding of how people gain weight, and why they have trouble losing it. That is really physiology and pathophysiology. But ultimately, this is really a time-dependent process. Now, most patients, like the one you presented with type 2 diabetes and a modestly elevated A1C who, in fact, weight is a concern, the primary care physician is the person seeing this patient. How can they take a fifteen- or twenty-minute patient visit and take all the skills you know, and you know them as well as anybody, and apply those in a short clinic visit?

DR. KUSHNER: Yeah, it's a great question. And what my general recommendation is after you have broached the topic by asking about permission and the patient is in agreement, probably the most efficient way of doing it is to have the patient set up a separate visit where that becomes the focus of the conversation. And, not only by doing that, you can ask the patient, you know what, I'd like you to do a little homework, if you will, before we set up that visit. I'd like you to track your diet for maybe one to three days, so you are more mindful about what you are eating. You can do it with pen and paper, or use an app. You can think about the questions you have about your body weight. You can think about

times in your life when you've gained weight, think about what questions you want to be asking me about different treatment options, so you come to the office prepared with questions and information, and more thoughtfulness. I will carve out my 15-20 minutes, and that is what we are going to focus on, with the goal being you are going to walk out of the office at that point with an action plan. So you have an agreed upon agenda that will not be crowded out by all the other problems that you are dealing with that patient.

DR. ECKEL: And typically we begin with a lifestyle approach which is a combination of nutrition or caloric intake, links to physical activity, and, in some circumstances, and I think well documented by our great colleague in Philadelphia, Tom Wadden, a behavioral intervention can be additionally useful. But those tools, particularly the later, may not be so available. But when we think about lifestyle, I do the same thing you do, Bob. I carry out patients for one week in gathering data related to their caloric intake, and I really say to them, very carefully, until we understand when you are eating and how much you are eating, and, by the way, just asking somebody that doesn't do a very good job. Having them collect data, maybe up to three days, perhaps up to seven, to get some information about their caloric intake pattern. Because most people overestimate their physical activity, and underestimate their food intake in the clinic. Your thoughts about that.

DR. KUSHNER: Yeah. I just want to emphasize that the classic treatment for obesity is cognitive behavioral therapy, or CBT. It has many components. I think the most useful component of CBT is self-monitoring. In fact, if you want to change anything in your life, monitor it, because it increases mindfulness of what you are doing. You are in the moment and it puts it front and center what you are actually trying to achieve, or what you just did. So, by asking someone to monitor their diet, they increase awareness. They begin planning. They start problem solving. They start thinking about what they would do differently. And it prompts questions that they want to ask me. So, it does everything. It also has restraint if they are really serious about it. Also, I think that's very important.

DR. ECKEL: What I do is I get on the scale every day. I can lose a few pounds, but nevertheless, I don't really think I have weight related issues metabolically or cardiovascularly directly. But all that aside, every day, and if I gain a pound or two, I say, what, was it the salt intake yesterday? Was it fluid intake? Or whatever. And often the weight changes a lot from day to day based on salt and water metabolism. So people should not get discouraged. They just need to have a metric to understand how they are doing.

So, Bob, an issue that often comes up is this recidivism of the obese state. In other words, many people come to the clinic. They've lost 5-10% of their weight four and five times, but they keep gaining back, and they kind of settle in at that same BMI of 33.5 or 36. And is the approach to the weight cycling patient who still needs to lose weight medically, asking first, of course, is that approach any different than it would be in someone who has just gained weight now, and they are asking for the first time to help them with their weight reduction.

DR. KUSHNER: I think the way you set up that patient tells us a lot. Two points come to mind, Bob. One is it highlights the biology and the biologic forces that push weight back up. Obesity is a chronic relapsing disease, so it is likely as you see progress, the body starts to push back biologically through appetite regulation, gut hormones, and so forth, to push you back where you were. So that speaks to that underlying process. It also suggests to me if I see a patient like that, I don't want them to reinvent the wheel one more time of what they've done five times only to end up being more frustrated. If the patient is a candidate for biologic treatment, which would be pharmacotherapy, as an example, I am going to be thinking about drug management earlier in that patient because they have already demonstrated to me by history that the biologic forces of maintaining that weight loss are very strong, and they could probably use injunctive treatment. So I would likely have that conversation with them if they are a candidate.

DR. ECKEL: Oh, that's a great answer. And when, at what point, do you consider ultimately directing a patient to a metabolic or bariatric surgeon? And, by the way, when we send a patient to a surgeon, we are not sending them to the operating room. We are hopefully finding a surgeon that has compassion, understanding, and understands not only the need for potential operative approaches to their obesity, but understands all the stigmata and biases and discrimination that exists in your care, or in my care, or in any of your cares, out there in the audience. Bob, your thoughts?

DR. KUSHNER: You know, the indication – it is probably worth mentioned the indications for pharmacotherapy and bariatric surgery, which, unfortunately are based on BMI, which I think is a terrible marker for obesity as a disease. It only marks body weight and size. But for pharmacotherapy, a BMI of 30 or more or 27 or more with one or more comorbidities. So that is when you think about pharmacotherapy.

Bariatric surgery, which you are talking about, Bob, is someone who has a BMI of 40 or more, or 35 or more with one or more comorbidities. So, we base it on BMI because of cut points and thresholds, and insurance issues. And until we come up with better markers, that is really what we have to deal with.

DR. ECKEL: Alright. To summarize our time together, Dr. Kushner has very well outlined the relationship between obesity and type 2 diabetes based on the epidemiology. We have learned something about the pathophysiology and the downstream effects of those two disorders that are concomitantly present in your patient. And, finally, what he brought up so importantly is the approach to the patient is critically essential in making sure that the diagnostic impressions to follow, and the therapeutic decision-making makes a bond between you and your patients so success to follow is much more likely. So, I want to thank Dr. Kushner again for an outstanding presentation. And I hope you enjoy the dialog to follow. Thank you for being part of our program today.