Weight and BMI
By Mala Seshagiri

Dr. Hendler: Hello and welcome to KP Healthcast. This is Peter Hendler, I’ll be your host today. Today, our guest is Mala Seshagiri, who is a Registered Dietitian and is the Director of Health Education for Fremont, Hayward, and Union City Kaisers. Mala is a repeat guest and she has a podcast on healthy eating. Today, we will be talking about weight and BMI. Welcome Mala.

Mala Seshagiri: Thank you Dr. Hendler. I again look forward to doing another podcast with you, with now emphasis on BMI and weight.

Dr. Hendler: Okay, there’s a lot of hype about BMI. What is BMI?

Mala Seshagiri: I think before explaining what BMI is, why is there hype about BMI? As you’re well aware, obesity and weight has increased tremendously in the United States, along with other developing countries in the world. We have now over two-thirds of the adult population that is overweight and at least over a third of them who are obese. How are we categorizing them as overweight and obese? There are different ways, of course that we can do this. Traditionally we’ve looked at weight and weight alone to determine if a person is overweight or obese. We have now found that really a better measurement is to have a ratio of your weight to your height to assess your risks to many medical problems due to excess body weight, and that is what BMI is. In fact, it stands for Body Mass Index and it’s a ratio. There is no units or there is no particular, it doesn’t come as pounds or it doesn’t come down as inches but it’s really pounds divided by inches and those of you who really want to do the calculation, the calculation is 703 times your pounds, so whatever your pound weight is, divided by your height in inches squared. That gives you the ratio and that is your BMI.

Dr. Hendler: But the formula’s probably on line too, isn’t it?

Mala Seshagiri: It is and, in fact, you can either go to any of your doctor websites and look up the resources on weight and you should find a link to how to calculate your BMI. If you don’t have that link immediately, you can go to the CDC, or the Center for Disease Control, and you’ll find links there on how to calculate your BMI. And even if you forget the formula, you do not have to calculate this. We have a chart that, in fact, plots your height and then it also plots what your BMI should be for your weight so you don’t, in fact, have to do any calculations. And now if you go to the CDC site, you can, in fact, download the calculator, the BMI calculator to your pocket PC and you have it on hand you can definitely impress your friends at parties on how you can calculate their BMIs.
**Dr. Hendler:** Now, I see here this Kaiser Permanente BMI handout that you have. Is that something that members can get from the Health Education Departments?

**Mala Seshagiri:** Certainly, they can get this from any of the Health Education Departments. They can also go to the Kaiser website and look at the various resources we have around health education and get this information also.

**Dr. Hendler:** Well, we sort of answered the next question but I’ll ask it anyway. What should my BMI be?

**Mala Seshagiri:** Okay, and I know you don’t want to divulge your weight, Dr. Hendler, or your height, but if we make an assumption that your weight is 132 pounds and you are 5 foot 5, and audience, this is not his height, this is not his weight, I’m just picking a height and weight here. If that was the case, then you’ll find, according to the chart, this person’s BMI might be close to about 22-23. So what does this mean, if you find a value of 22 or 23? By the way, Dr. Hendler, have you ever figured out your BMI?

**Dr. Hendler:** I did. I think it was near, it was still in the okay part but getting to upper part of the okay part.

**Mala Seshagiri:** Okay, so what is the okay part then? The okay part is a BMI of between 19 to 24. Is that the okay part you were in Dr. Hendler?

**Dr. Hendler:** Well actually I have a question about that, can BMIs really be the same for men and women?

**Mala Seshagiri:** Yes they can. In fact, this chart is the same for men and women. It is for adults. Having said that, and I will get back to what is an okay number, there are a couple of things that the audience should remember when we talk about the BMI. We’re looking at weight and we’re looking at height. What constitutes your weight, if you think about your body, what all constitutes your weight? You have muscle in your body, you have fat in your body, and you have water in your body. So when you’re doing this calculation, you do not differentiate between the weight that is due to water, weight due to muscle, or weight due to fat. Which means that if you are someone who is very muscular, men generally have lower body fat than women and higher muscle than women, generally, but if you are very fit and you exercise quite a bit, you will have higher muscle mass and muscle mass will always weigh more than fat mass, which means that on the BMI scale, you may actually tip to the higher BMI, which doesn’t necessarily that you may be at risk due to obesity due to fat but it really shows that you might have a higher weight due to muscle. So when you look at the BMI, you must always keep that in mind, that we are not really assessing body composition but just generally looking at risks of high body weight to height. So what are some of the risks? If you fall between 19 to 24, and we just took this person who was 5 foot 5 and weighed 132 and I told you his BMI, or her BMI, was close to about 22 to 23. That falls in the range of 19 to 24, which means that there is less risk for this person of medical problems.
**Dr. Hendler:** We were talking about how your body is composed and, of course, that means like what percent body fat you have. Now everybody who’s ever been to a gym, they have these little machines that you’re supposed to grab with your hands and it’s supposed to like measure the electrical resistance from one hand to the other and that’s supposed to estimate your body fat. That always seemed kind of silly to me because if you had abdominal obesity, the electricity wouldn’t be going through there at all. So do you know if those body fat analyzers that are just the little tiny machines they have at gyms where you grab your right hand against one electrode and your left in the other and you press the buttons with your age and weight, do they give you an accurate percentage of body fat?

**Mala Seshagiri:** Like any measurement, you know, unless the machine is calibrated well, there are always errors that come in any measurement. What you are talking about is really where the electrodes are measuring the amount of electricity that’s flowing through your body and what resistance it encounters and that is really measuring your body water and based on that they can then go back and do calculations on how much body fat you do have and this is called bioelectrical impedance and there are things where you can get hooked or even step on, there are now scales that are called bioelectrical impedance, that you can step on that will tell you how much body fat you have. The caveat here that I need to inject is that if you have high body water because of any medical problems, then this is not a correct way of assessing your body fat.

**Dr. Hendler:** That’s very interesting, and then what about my concern that the electricity goes from one hand, up your arm, across your chest, and then down to the other hand, missing any abdominal fat. So if someone had central obesity or mainly abdominal fat, would it falsely tell them that they were okay when they, in fact, had a higher percentage of body fat because the electricity and the impedance wasn’t going through their abdomen?

**Mala Seshagiri:** I see your question Dr. Hendler. I’m not the best person to answer on that question.

**Dr. Hendler:** Sure, it’s unfair of me to go off script but...

**Mala Seshagiri:** I do see the tit and tat here but for the audience, what you need to be aware of is that any measurement you take, whether you take it on a scale or a bioelectrical impedance measurement, you do skin fold measurements, you do underwater measurements, you do the BMI, these are all just techniques that we can use to assess risks. We then have to factor in many other things that happen. First of all, is there a genetic propensity for you to gain weight because it is in the family? Do you have as what you mentioned Dr. Hendler, abdominal fat? Is the fat centered around your abdomen or is it around the hips? The risk factors will change. Do you want to take a waist measurement? Usually that’s another way of determining your risks to medical conditions.

**Dr. Hendler:** I’ve heard of that recently, it’s the waist to abdomen ratio.
**Mala Seshagiri:** It could be that or it could be the waist to hip ratio.

**Dr. Hendler:** That’s what I meant, okay. Waist is abdomen, right, okay. Alright, well how can I increase my BMI if I were lucky enough to have too low of a BMI?

**Mala Seshagiri:** If your BMI is less than 19 and you want to increase your BMI, obviously if you’re an adult, you’re not going to change your height, so we’re not talking about height, we’re talking about weight. So if you’re talking about weight, what are the different ways of gaining weight and gaining it in a healthy way. You obviously don’t want to gain weight where you tend to have a high body fat but if you have very low body fat, you know there is then, of course, it’s quite okay to gain a certain amount of body fat. So how do you do that? The easiest way, of course, is to increase calories in your diet. Typically, when you have calories in equalling calories out you tend to maintain weight. If you take in more calories then you’re putting out through exercise or body functions, you will gain weight. So you obviously have to take in much more calories so you can gain weight. What are the different ways of gaining weight? By increasing calories, you could increase it in the form of more serving sizes, maybe if you’re constantly having non-fat products, to go to low fat. I would not recommend regular because, as I said, you still want to maintain a healthy diet. The other part of this equation is, can you then exercise more, because I just told you earlier on that muscle mass tends to weigh more then fat mass, so if you do exercise more you will find your weight will increase. In fact, often the challenge for people who lose weight is that they will get into a rigorous exercise program and they will not see any change in their weight, which can discourage them from actually going on a weight loss regime but what is really happening is, they are now much healthier because they’ve changed their eating habits, they’re increasing their activity, so if you did a body composition they’re actually exchanging muscle for body fat, even though the scale is not telling you that.

**Dr. Hendler:** And I imagine they would have a suspicion that was true because the shape of their body would probably be changing.

**Mala Seshagiri:** Very correct. In fact, you’ll find that many of these people will say, first of all, they have more stamina because what are some of the benefits of exercise? It will help replace fat with lean body mass, it would increase your body strength, your bone strength, it will lower your blood pressure, but you will also find that it will also change your waist size and clothes that didn’t fit you that well before because you had a larger frame now fit you much better. In fact, you may end up going and getting a brand new wardrobe.

**Dr. Hendler:** Okay, well the more common question, I’m sure, rather to increase your BMI is the question of if my BMI is too high, how do I decrease it?

**Mala Seshagiri:** If your BMI is too high, we have a couple of ranges you need to look at. As I mentioned before, the BMI of 19 to 24 is the normal weight and your risks to medical problems are less but if you have a BMI between 25 to 29, that puts you in the
category of overweight and that starts increasing your risks. And of course, if you are in
the category of 30 and above, that is when we start categorizing it as obesity and, of
course, that increases risks even further to many of the chronic diseases such as diabetes,
heart disease, and hypertension. So how do you lower your BMI? Again, we’re going
back to that formula of calories in equals calories out, you maintain your weight. If you
take in more calories than you’re putting out, you tend to gain weight so the logical thing
would be you need to now take in less calories and put out more calories. So what does
that mean? That means you will have a combination of reducing the calories you are
taking in, and I’m not talking about crash dieting, I’m talking about the little changes you
can make where you may substitute high-fat foods or high-calorie foods with lower
calorie foods, such as whole milk with skimmed milk or with reduced fat milk or
reducing the amount of servings that you take of butter or of mayonnaise. Any of those
little changes that you can make to reduce your calories from concentrated foods. And
then the other part of the equation is to increase your exercise and the physical activity
can benefit anyone of any age and it’s never too late to begin any physical activity
program that is correct for you, and keep in mind, any time you make changes on
physical activity or eating, always consult your provider. There may be certain medical
problems that you need to check with your provider before you start with any program.

Dr. Hendler: Could you say a few words about low-carb diets that seemed to be such a
very big thing a few months ago?

Mala Seshagiri: Sure, I’d be happy to. Um, as you just said, fad diets. Diets come and
go and dietitians are well aware of that. And I think in any diet, when you’re trying to
assess the quality of a diet, there are a few things you need to keep in mind. Is this a
diet? And really, we don’t like to use the word “diet”, we’re really talking about healthy
eating. But if it is a diet, is this a diet that you feel you can live with for the rest of your
life? And low-carb diets may not be something you can actually live with for the rest of
your life, and is it really necessary for you? Any time you change eating habits and if
you’re eating so-called regular carbs and then reduce it to low carbs, the body will
immediately make some changes and you will lose weight. There is that immediate
benefit that you will see but in the long range is it necessary? Because what are you
substituting for the carbs? Are you taking in more proteins, are you taking in more fat?
Are there reasons why you should be concerned if you take in more protein or fats based
on your own medical history. So these would be some concerns of immediately going to
a low-carb and making sure that you are able to get the necessary calories and vitamins
and minerals in a balanced diet.

Dr. Hendler: There is another approach to losing weight which is in the public media an
awful lot and it has to do with various herbs and various substances that have claims that
they’re clinically tested and you will dramatically lose weight and you won’t have to do
the exercise or the diet and they’ll suppress your appetite. I probably don’t want to name
any brand names because I don’t think we can do that but there’s one that’s particularly
being pushed lately. Do you have any comments on that?
Mala Seshagiri: Yes I do and thank you for bringing that up. Whenever you see the claim that it’s clinically tested, you need to look further. Who actually clinically tested it and how many people were involved? I’m sure you’ve seen claims where they would say four out of five doctors approve of this, and that’s it. There were four doctors who approved out of a bunch of five doctors, which in any clinical setting, is not adequate to determine the efficacy of a product. If you have any questions of these products, I would highly recommend that you go to the FDA site, which is the Food and Drug Administration site, which will cite all these various products and whether they are safe or not. And in fact, if they’re not, you will also be able to read which products are being recalled and I would highly recommend that. And if you are taking any of these products, please do share that with the providers. In fact, Kaiser has a very good site to determine the quality of many complementary medicines that are out there on the market and many of you would have noticed that in our pharmacies we do sell different products but they’re all FDA approved.

Dr. Hendler: I’d like to make a comment about when there are claims that something has been clinically proven. Of course anybody can call their kitchen a clinic and they can clinically prove something but if you want to know whether it’s really legitimate, I could suggest PubMed. Now PubMed is actually the National Library of Medicine and what you do, because it has a hard to remember URL, is you just go to Google and then you just Pub, P-U-B, Med, M-E-D, it’s one word PubMed, and because it will be the first hit, it’s one of the only times when you can actually hit the “I’m Feeling Lucky” button on Google. When you’re there, you’re in the National Library of Medicine and you can type in the name of the particular dietary supplement or herb that is making these claims of being clinically proven and this is where you’ll see the real clinical studies, if there are any. If nothing comes up, it’s never been tested in a real university in a real way. If there is any real data, then it will be known to the National Library of Medicine. So a suggestion would be that anytime you hear anything in any medical subject where they’re claiming it’s clinically proven, go to Google, type “PubMed”, hit “I’m Feeling Lucky”, and start doing your research there.

Mala Seshagiri: I think that’s great advice.

Dr. Hendler: Well Mala, this has been very enjoyable. I hope we can do a lot more shows.

Mala Seshagiri: I look forward to it!

Dr. Hendler: Now, since the people listening to this show may not have heard your other show, I wonder if you would like to finish by adding any extra thoughts or any extra things that you’d like them to know.

Mala Seshagiri: Yes I would. In fact, I had mentioned how one way of decreasing your weight or, in fact, even increasing your weight in terms of muscle mass is exercise and that’s one thing you’re constantly hearing me talk about, exercise. In fact, in many studies done they have found that if you are consistent with exercising or being active,
that is the best way to maintain your weight. So how can you begin an exercise program? First of all, you always want to run it by your provider, as I mentioned before. If there is anything in your medical history that needs to be taken into account. And really another very simple way of exercising is walking. We’ve done it for generations and, in fact, those of you who follow the marathon, and again, the Kenyans won the marathon and that is something that’s part of their life. They’re constantly walking and they’re very fit. So how could you add more steps to your day and become more fit? As you’re aware and you may have heard in the media, you know there are now step counters called pedometers. In fact, we have pedometers available in many places, in commercial places, on line, we have them in Kaiser. And why is a pedometer helpful? It’s a very simple tool to help you track how many steps you take a day. And CDC has shown that if you take 10,000 steps a day, that’s the equivalent of five miles a day. If I asked you to walk five miles a day, that would seem very daunting, but you’ll be surprised, when you put the pedometer on typically everybody actually logs in between 2,000 to 5,000 steps a day so you’re already walking 2 ½ miles a day. So how can you increase the number of steps you take a day? Park in a spot that is safe but allows you to walk a few extra steps when you go to work. Do not take the elevator, take the staircase. Walk to a restroom or a copy machine at different times of the day so you’re able to add steps and have activities over the weekend that will allow you to increase those steps. Just the little things will add up.

**Dr. Hendler:** It sounds like we’d better schedule a podcast on exercise. We’ve done Healthy Eating, we’ve done BMI, which is the weight, and it sounds like the natural third one would be the exercise part.

**Mala Seshagiri:** I think so!

**Dr. Hendler:** Okay, well I’d like to thank everyone for listening and as always, be sure to visit us at KPHealthcast.org and as always, keep finding new ways to THRIVE.