

## Lunch and Learn: National Nutrition Month

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[0:00:00-0:00:13]

Nicole Johnson: Alright we'll go ahead and get started. Well, Hello, everyone. Thank you for tuning in to our virtual lunch and learn today. I hope everyone is staying safe and healthy out there.

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[0:00:14-0:00:21]

Nicole Johnson: Before we get to our presentation, I want to mention a couple of upcoming events we have. We have a few

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[0:00:22-0:00:33]

Nicole Johnson: Group virtual group fitness classes. Our instructors are leading them via zoom from their own homes. We have about five throughout the week going on.

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[0:00:34-0:00:54]

Nicole Johnson: And you can find them all in register on link to health. We have a five-week online health athlete program, starting on April 8. Also starting on April 8 is another virtual session for eight weeks about staying calm and well in the midst of the corona virus storm.

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[0:00:55-0:01:03]

Nicole Johnson: During the presentation if you have any questions please just type them into the chat box and we will get to the end we'll get to them at the end.

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[0:01:04-0:01:13]

Nicole Johnson: I would now like to introduce our speaker. Jackie Buell practices as a sports dietitian at the Jamison Crane Sports Medicine Center.

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[0:01:14-0:01:23]

Nicole Johnson: Her primary academic appointment is in the School of Health and Rehabilitation Sciences; Jackie has a formal background in athletic training and exercise science.

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[0:01:24-0:01:34]

Nicole Johnson: As well as nutrition. Her research expertise is in the area of body composition and bone density and athletes. Please welcome Jackie Buell.

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[0:01:35-0:01:42]

jackiebuell: Thank you, Nicole. It's wonderful to be here. Uh, I hope to be able to give you a presentation that you can at least pick up a few pearls of things that are new.

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[0:01:43-0:01:54]

jackiebuell: Um, as you can tell, I'm waving my hands a little bit standing here uh, please notice that when I teach in the classroom I walk around everywhere and that's part of what helps me keep kind of my my level of animation up so

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[0:01:55-0:02:01]

jackiebuell: I'll probably walk around. I'll probably leave you looking at this window for a little bit, uh, feel free to to mute that piece. If you want to

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[0:02:02-0:02:09]

jackiebuell: Um I will say first, welcome to national nutrition month that's part of the reason we're doing this in March is this is national nutrition month

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[0:02:10-0:02:15]

jackiebuell: Funny enough, as you know, I'm also an athletic trainer and its national athletic training month. So welcome to both of those.

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[0:02:16-0:02:23]

jackiebuell: Uh, but, without any further ado, let's go ahead and and move through the slides that I prepared for you guys just kind of as our basis of conversation.

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[0:02:23-0:02:30]

jackiebuell: Um, again, I hope not to get too monotone, I know it's easy when you're recording things to get a little monotone, so we'll move through it so

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[0:02:31-0:02:42]

jackiebuell: Uh, they wanted me to provide you guys with some objectives and kind of give some direction to my talk. And so, as you can read for yourselves here, we're going to talk about how much energy you need, as well as how you might parse that to your macronutrients

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[0:02:42-0:02:49]

jackiebuell: You hear a lot of people say they're eating by their macros, you know, what does that mean? and I'm going to show you how to set your own macros. If you would like to

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[0:02:49-0:02:58]

jackiebuell: Um, as well I want you to realize that so much of our body relies on our genetic load. So, towards the end we'll talk about some chronic diseases.

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[0:02:58-0:03:10]

jackiebuell: Um, and I hope you realize that your genetic load is is a big part of that. Uh, and then we're going to talk a little bit about where you might find some resources on campus ff you want some further help help and direction.

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[0:03:10-0:03:21]

jackiebuell: So, if we start talking about energy balance um, and I think most people know that your calories in need to match your calories out in order to be in balance, in order to maintain your weight.

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[0:03:22-0:03:29]

jackiebuell: When you eat too much you gain weight. When you eat too little, you lose weight. Having said that, it's not really the case for everybody.

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[0:03:29-0:03:40]

jackiebuell: So, uh, each person kind of has their own individual metabolism. I certainly know plenty of fairly thin folks who tell you that it doesn't matter how much they eat they still can't gain weight.

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[0:03:40-0:03:49]

jackiebuell: I know plenty of heavy folks who say, it doesn't matter how little I eat. I still can't lose weight. Um, and so we want to talk about these kinds of things today.

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[0:03:49-0:03:59]

jackiebuell: Um, it is important to have a little bit of an energy deficit to lose weight. What I see most in my clinical practice are people trying to to restrict calories, way too far.

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[0:03:59-0:04:04]

jackiebuell: They come to see me because they're upset. They're not losing weight. They don't understand. They've done all this research online.

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[0:04:05-0:04:13]

jackiebuell: You know, Dr. Google might be one of our public enemies. Just saying, because you can find so much information out there that sometimes it's legit and sometimes it's not.

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[0:04:13-0:04:20]

jackiebuell: That's the other thing I want to do today is provide you with what I consider to be some legit resources for this kind of stuff. Okay.

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[0:04:20-0:04:28]

jackiebuell: Uh, but, you need to be really intentional about your energy balances. What I'm trying to get at with this and you want to be sure that you're kind of spot on to what you mean to be doing with your body.

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[0:04:29-0:04:38]

jackiebuell: Okay, so you don't always want to be bottom siding it. You don't want to be under eating so much all the time that your body can't do good and you don't want to be over eating so much all the time that your body can't do good.

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[0:04:39-0:04:45]

jackiebuell: And so, when we look at what kind of energy does each of us need it depends on a new number of factors here.

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[0:04:46-0:04:50]

jackiebuell: And so, when we look at a person's age, the older we get, the fewer calories we need

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[0:04:50-0:04:58]

jackiebuell: The younger person, the more they need to support growth and their physical activity. And then as we hit adulthood, where we stop growing, we kind of level off for a while.

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[0:04:58-0:05:09]

jackiebuell: Probably in our 30s and 40s, we start to go downhill, and then we hit our 50s, uh, along with change of life life issues uh, as your age decreases so do your calorie needs.

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[0:05:09-0:05:15]

jackiebuell: So as well, gender, if I'm going to calculate energy needs on a person, I'm going to use a different equation for men versus women.

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[0:05:15-0:05:24]

jackiebuell: Um, and again, age comes into that, as in terms of different equations. We usually use a person's height, their weight, and uh, their gender to do these

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[0:05:25-0:05:36]

jackiebuell: Um, do these calculations. So again, uh, some people have a really fast metabolism and some people have a slower metabolism and we'll talk about that and you want to be intentional about what you're doing.

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[0:05:37-0:05:47]

jackiebuell: One of the things I want to capture with a person when I'm interviewing them is how much training are you doing? You know, I can calculate, I can just lay down some general calorie needs for females by age.

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[0:05:47-0:05:55]

jackiebuell: Uh, If I want to, but if I really want to be specific and help them reach their goals then I want to know what is their training volume if they're doing exercise.

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[0:05:55-0:06:06]

jackiebuell: So, I will often talk about exercise and training volume. My background and training is sports nutrition. Doesn't mean I can't help people in general uh, but it means that that of course my language is loaded with that.

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[0:06:07-0:06:19]

jackiebuell: Okay, so this is a machine the the core kale RR, core resting metabolic rate machine that we use there in the lab. And this allows us and, in the labs, over in the Jamison Crane Sports Medicine Center.

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[0:06:20-0:06:28]

jackiebuell: And a person sits in a chair or on my dexa machine just like this uh, and relaxes and we relax them for a good 15 minutes if we've got time.

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[0:06:29-0:06:41]

jackiebuell: Uh, to be sure that they kind of come down to resting and then uh, this, I'm pretty sure you can see my cursor moving this little piece that goes in their mouth is where they breathe they've got a little clip on their nose and they inhale.

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[0:06:41-0:06:46]

jackiebuell: From the ambient air out here and when they exhale that volume of air goes through the machine.

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[0:06:46-0:06:51]

jackiebuell: And it estimates how much oxygen is that person taking out of the air. Therefore, how many calories are they burning.

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[0:06:52-0:07:05]

jackiebuell: K, so the whole idea of this resting metabolic rate is that you can be relaxed and not influenced on anything that jacks up your metabolism that day. So just for that reason these aren't always as um

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[0:07:05-0:07:13]

jackiebuell: They're not always as accurate as we would like them to be. But nonetheless, this is how we measure it in the lab. Now, there are a number of different machines.

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[0:07:13-0:07:19]

jackiebuell: Uh, that are out there. Another one that's fairly common and I think some folks on our campus have it as well is the med gem.

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[0:07:20-0:07:26]

jackiebuell: And it's just a little handheld that's about as big as what I'm holding right here that you plug in the same way and you breathe just through that handheld.

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[0:07:27-0:07:33]

jackiebuell: We think that these table top models are probably plus or minus 10% in terms of their accuracy.

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[0:07:33-0:07:40]

jackiebuell: I think you can probably get plus or minus 10% with some of the equations. So, when people say, is it worth my while to have this RMR test done?

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[0:07:41-0:07:51]

jackiebuell: Well, sure, if you if you feel like you want to have it done, just to see what it says, we actually offer this for 25 bucks in the clinic, but I'm only going to do them first thing in the morning because I want them to be fairly accurate.

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[0:07:52-0:07:57]

jackiebuell: A person gets up, they're welcome to brush their teeth, of course, and a little bit of water to go with that. Other than that.

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[0:07:58-0:08:07]

jackiebuell: No coffee no tea no cigarettes no smoking, nothing that amps up your resting metabolic rate. You want to come and get on the machine. So, you get a fairly accurate recording

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[0:08:08-0:08:14]

jackiebuell: I would say that if I test... I'll say 20 people maybe I find one or two

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[0:08:15-0:08:22]

jackiebuell: Who have a significantly low metabolism. So, it's really not a very big number. And there's some research around that as well. But that's been my experience clinically.

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[0:08:23-0:08:28]

jackiebuell: So, if we want to predict your energy needs uh, without using the machine to do it with

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[0:08:29-0:08:37]

jackiebuell: This is what we're going to do, we would use a prediction calculator, if you will. There are prediction equations. The two that I use most frequently are the Harris Benedict

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[0:08:37-0:08:46]

jackiebuell: And the Mifflin St Jeor equation. The Harris Benedict is one that I use for most folks who don't have any metabolic issues or they're not uh, morbidly obese.

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[0:08:47-0:08:52]

jackiebuell: Um, I will go ahead and use Harris Benedict for them. Even the athletes I work with, I often we use this Harris Benedict

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[0:08:53-0:08:59]

jackiebuell: There are probably three or four different equations, you could use for athletes, but in my experience, they're not much different than this Harris Benedict.

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[0:09:00-0:09:05]

jackiebuell: So, I've got a little Harris Benedict Excel spreadsheet built for myself that I can calculate people's calorie levels.

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[0:09:06-0:09:17]

jackiebuell: On that same spreadsheet, I've got the ability to look at the Mifflin St Jeor equation. Mifflin St Jeor and and all of these are named after the folks, of course, they're named after the folks who put the equations together.

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[0:09:18-0:09:29]

jackiebuell: But the Mifflin St Jeor equation is particularly helpful for folks who are uh, overweight or they bounced their way up and down a number of times. Maybe they've got just a little bit of metabolic damage from doing that.

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[0:09:29-0:09:38]

jackiebuell: Uh, the Mifflin St Jeor's a more cautious equation. So, if you want to be sure that your calculations aren't overfeeding you then use Mifflin St Jeor, that's fine.

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[0:09:39-0:09:44]

jackiebuell: So, uh, I'm not really going to share these equations, per se, with you there are available online, you can find them.

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[0:09:45-0:09:54]

jackiebuell: Uh, what I what I do want you to see is how this DRI equation works. And I've put in a different slide to help you see that today. But let's say that you've gone ahead and you've

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[0:09:54-0:10:00]

jackiebuell: Uh, run the Mifflin St Jeor equation on yourself, that represents your resting metabolic rate.

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[0:10:01-0:10:07]

jackiebuell: I often get the question, well, how is BMR basal metabolic rate, different from my resting metabolic rate?

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[0:10:08-0:10:11]

jackiebuell: In nutrition, we really talk about them as if they're the same.

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[0:10:11-0:10:21]

jackiebuell: The true difference would be your basal metabolic rate would have to be a situation where you were fasted overnight, you're laying in a bed in a place like our our Center for translational research.

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[0:10:21-0:10:29]

jackiebuell: They've got a hood that when you wake up the hoods over your head uh, that hood doesn't let any air escape and you barely wake up, you're at a point of

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[0:10:30-0:10:39]

jackiebuell: Uh, being awake without thinking about anything. And you're just laying there, how much oxygen do you use? That would be more like a BMR that's just not practical in a clinical setting, really.

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[0:10:39-0:10:50]

jackiebuell: Um, we might try it for some research and stuff like that. But, so RMR really describes just this resting you know by the time you get to my lab to have an RMR test done you have survived 315 traffic that morning.

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[0:10:51-0:10:59]

jackiebuell: Which means what? You're a little amped up typically, right? So, uh, there's almost no way to not have some sense of stimulus about yourself, by the time you get there.

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[0:10:59-0:11:09]

jackiebuell: So anyway, we find that RMR number, whether you do it by equation or measurement and then we have to put to it a physical activity factor. And so, this is where how much do you exercise kind of comes into it.

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[0:11:10-0:11:19]

jackiebuell: If you're really not doing much exercise, then you can use this physical activity factor of a 1.3. And when I say use a physical activity factor of 1.3

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[0:11:20-0:11:25]

jackiebuell: You find your resting metabolic rate and I'm showing you down here. If your resting metabolic rate 1250

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[0:11:26-0:11:38]

jackiebuell: Then you multiply that by this factor this physical activity factor of 1.3 and it gives you about 1625 calories. Okay, so a resting metabolic rate at 1250 is not a very large person.

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[0:11:39-0:11:50]

jackiebuell: And 1.3 is what I use when somebody is sedentary. I do have colleagues that will use a 1.2 when somebody's trying to lose weight as their physical activity factor that's fine, but you're in the ballpark. The point is,

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[0:11:51-0:11:56]

jackiebuell: Your resting metabolic rate is not the number of calories you should consume.

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[0:11:56-0:12:05]

jackiebuell: Anytime you're consuming fewer calories than what your body needs, you're asking for your body to kind of bring it in a little bit and not have as fast metabolism

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[0:12:05-0:12:06]

jackiebuell: At different points in time.

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[0:12:07-0:12:19]

jackiebuell: So, let me define for you a physical activity level of moderate activity would be a person who's getting to the gym, four or five days a week, an hour at a time, getting some pretty good workouts in there, cardiovascular, hopefully doing a little weight training as well.

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[0:12:20-0:12:26]

jackiebuell: Um, you know, if we've got an athlete who's doing practice five or six days a week, or maybe practice four days, game a couple days

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[0:12:27-0:12:37]

jackiebuell: I'll usually just use 1.5 on them. I don't see too many athletes that are your adult athletes who are trying to gain a lot of weight.

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[0:12:38-0:12:45]

jackiebuell: Right? So, I don't want to overfeed them. If I see an adolescent, a young person who's done growing, so, I'm not going to use the adolescent equation

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[0:12:45-0:12:52]

jackiebuell: But, I might use the adult equation, I might look at 1.7 or 1.9 for that kids' physical activity level, to be sure I'm feeding them enough

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[0:12:53-0:13:01]

jackiebuell: These tall, thin drink of water athletes are the ones that do want to gain weight. So, you got to be sure that you're kind of feeding them enough. So, when I'm looking at this, I'm looking at it on a spreadsheet.

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[0:13:02-0:13:10]

jackiebuell: I'm taking into consideration everything the person has said to me and trying to kind of get at what is our best guess at what the calorie intake should be

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[0:13:11-0:13:14]

jackiebuell: Okay. And, and I hope it really personalizes for people

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[0:13:14-0:13:22]

jackiebuell: Uh, what their calorie level should be. Now, yeah, you heard me say best guess. It sounds pretty scientific when you put all these numbers in the machine and it spits a number out.

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[0:13:22- 0:13:33]

jackiebuell: But not everybody has a calorie is a calorie. Um, I know plenty of women who tell me that I gain weight on 1000 calories a day, it's like, wow, that shouldn't be the case for anybody.

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[0:13:33-0:13:45]

jackiebuell: I have men who are are not that big and they're fairly thin and then they say, I can't gain weight eating 5000 calories a day. A calorie is not a calorie for those particular people. So, we have to find a good starting point.

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[0:13:46-0:13:49]

jackiebuell: That's kind of our best guess and then monitor from there and see how people do.

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[0:13:50-0:14:03]

jackiebuell: This is uh, me kind of getting back to that uh, calculator. The DRI calculator. The DRI calculator or the dietary uh, recommended intakes right and so you can go to this USDA

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[0:14:03-0:14:12]

jackiebuell: Website and you can see on the left-hand side, I've just put a picture of this in for you guys to see, but there's all kinds of dietary guidance and different things that you can learn from this website.

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[0:14:13-0:14:22]

jackiebuell: Uh, but in the uh, mainframe of this particular page you can see that it's got the DRI calculator for healthcare professionals, you can get on there and enter all of your information.

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[0:14:23-0:14:31]

jackiebuell: It already accounts as I point down here it already accounts for your activity level, it will give you an estimation of how many calories you need.

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[0:14:31-0:14:41]

jackiebuell: And so, I think that's a really useful tool and you don't have to have an account as a healthcare provider or anything like that to reach that. They just want people to use this under guidance of a professional.

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[0:14:42-0:14:46]

jackiebuell: Okay, so we take into account your body goal. So, let's talk about that for a few minutes.

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[0:14:47-0:14:55]

jackiebuell: If you want to lose body fat, most people come to me and they say, I want to lose weight and I say, okay. what kind of weight do you want to lose? And they look at me like,

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[0:14:56-0:15:07]

jackiebuell: Uh, weight on the scale. And I'm like, no do you want to lose fat weight? Do you want to lose lean mass? Oh no, of course, I want to lose fat, but they've already said they think losing weight means losing fat.

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[0:15:08-0:15:10]

jackiebuell: For people who are losing a fair amount of weight.

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[0:15:10-0:15:19]

jackiebuell: Often they'll lose about three pounds of fat to one pound of lean and just that ratio. So, we've got to be careful about how much we under feed them because the more you under feed them

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[0:15:19-0:15:30]

jackiebuell: Chances are, the more lean mass, they'll lose. I want you guys to realize that as we age it gets easier and easier to lose lean mass. So, we don't want to speed up that process by trying to lose weight.

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[0:15:30-0:15:39]

jackiebuell: Okay, so I usually I'll try to get them at about 300 maybe 300 maybe 500 at most calories under what their body needs.

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[0:15:40-0:15:52]

jackiebuell: The only caveat I will throw out there to that is when the person only needs 1600 calories, man, I refused to write a meal plan for 1400 or below.

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[0:15:53-0:16:04]

jackiebuell: I want people to eat enough. Let's make that difference by exercise. Right? I want them to keep their lean mass. I want them to get enough nutrients in their diet, we got to eat enough food to do that.

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[0:16:04-0:16:10]

jackiebuell: Okay, so if somebody wants to increase their strength, then, of course you've got to eat like you want to increase your strength.

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[0:16:11-0:16:24]

jackiebuell: Um, you cannot be eaten let's take a man who needs 2500 calories a day, who's tried to eat 1800, his ability to gain strength is really going to be limited because he's not eating enough calories for it. Whereas, if we had that guy at

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[0:16:25-0:16:33]

jackiebuell: 22-2250 calories, working hard in the gym, now maybe he can add some lean mass at the same time he's he's cutting a little bit of weight.

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[0:16:34-0:16:47]

jackiebuell: Um, It is possible, to lose some fat gain some lean. It is not true that we turn fat into lean mass. Okay, there are two very separate topics and your calories need to be in about the right place uh, for that to happen.

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[0:16:48-0:16:59]

jackiebuell: So, uh, when you're trying to lose weight, I want you to think about protecting your metabolism and a lot of people say what do you mean by protecting your metabolism? I want to keep that metabolism moving throughout the day.

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[0:16:59-0:17:08]

jackiebuell: Okay, and I, I often uh, in person do this little, I'll call it kind of almost a little skit, I hope it is the same online but, uh,

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[0:17:08-0:17:15]

jackiebuell: Talking about women who are trying to lose weight and certainly men can be this way too. It's just common that it's a female that comes to me and they say, okay,

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[0:17:15-0:17:25]

jackiebuell: So, I eat breakfast, because my mom always taught me that the most important meal of the day was to eat breakfast and people who are telling me to lose weight told me to eat breakfast, so I eat breakfast.

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[0:17:26-0:17:32]

jackiebuell: By breakfast they mean I have a bowl of oatmeal, maybe it has some berries in it and I have a boiled egg.

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[0:17:32-0:17:36]

jackiebuell: To me that's not much of a breakfast. But that's what this person this fictitious person is having.

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[0:17:36-0:17:46]

jackiebuell: So, then the middle of the afternoon, somebody has brought in some kind of donuts or cookies or something like that to the office this person's dieting, they say, No, no, I'm not going to have any of that. I'm going to wait until lunchtime.

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[0:17:47-0:17:57]

jackiebuell: Lunchtime comes that same person says, I'm going to have a salad because I know I can put some lean protein on that salad, I can put all these veggies on it, no dressing because I don't want to consume the calories.

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[0:17:58-0:18:03]

jackiebuell: Right? I'll just have chicken on top of my salad, in a dry salad, maybe with just a little oil vinegar or whatever.

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[0:18:04-0:18:11]

jackiebuell: So, middle of the afternoon comes they walk past the candy machine, they're just as hungry as you get because they haven't eaten much all day.

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[0:18:11-0:18:20]

jackiebuell: Right? They get home for dinner and if they happen to be the person who cooks dinner, they are nibbling all over everything that doesn't move in the kitchen because they're so doggone hungry.

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[0:18:21-0:18:29]

jackiebuell: Let me act like your metabolism and micro metabolism, if you will, in a similar situation. So, in the morning, your metabolism says

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[0:18:29-0:18:34]

jackiebuell: All right, we got a little bit of food. We're doing good. Get yourself moving, right? We can do all the things we need to do today.

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[0:18:35-0:18:44]

jackiebuell: It gets to be 10 o'clock. There's no snack coming in your body says, oh, we better slow down and this person's hungry at this point they know it, but nope, we're going to be good.

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[0:18:44-0:18:55]

jackiebuell: Right. They get to lunch. They feel good because they're having a little bit of lunch, but they still realize up here that they've restricted themselves, right. Their metabolisms like guys, all we're getting chicken. Really, it's all we're getting, slow down.

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[0:18:56-0:19:06]

jackiebuell: Middle of the afternoon, not getting anything, late day, not getting anything and then all of a sudden, this person goes way up, ate it up, they give you all this food. What's your body going to do with all those extra calories at that point?

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[0:19:07-0:19:20]

jackiebuell: Yeah, it's gonna storm, right? So instead of fallen off the wagon and eating so much at night, why don't we back up? Why don't we design a diet that has us eating across the day so we don't get so doggone hungry?

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[0:19:20-0:19:26]

jackiebuell: When you can suppress a person's appetite a little bit is when they're going to be able to keep their calories down a little better.

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[0:19:27-0:19:37]

jackiebuell: Right? I like to use fat in the diet and protein in the diet to help keep the the hunger at bay. So, we're going to eat protein throughout the day is going to be a piece of where I'm going with this.

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[0:19:37-0:19:48]

jackiebuell: Okay. So you got to eat the fuel yourself. I like people to kind of eat across the day, if they will, not necessarily eating all the time, but in some very distinct three meals. Couple of snacks.

153

[0:19:49-0:19:55]

jackiebuell: Uh, making sure that our proteins high. So no meal skipping, no really low-calorie diets,

154

[0:19:56-0:20:05]

jackiebuell: Unless you're part of a medically approved physician supervised program and then have at it. That's that's what you're paying to have done at that point.

155

[0:20:05-0:20:17]

jackiebuell: Alright. But I don't believe that those do us any good in terms of keeping our lean mass and just losing fat mass, Okay. In fact, let's think about it like this. I have a couple little scenarios I like to talk about here.

156

[0:20:18-0:20:27]

jackiebuell: Uh, If I get upset with my body and I think I want to lose weight, I go on a crash diet to lose that weight, when I lose that weight, I lose fat mass, and a little bit of lean mass.

157

[0:20:28-0:20:35]

jackiebuell: Uh, Okay, I'm done losing weight, feeling pretty good, I go back to my old eating habits, what do you know, next thing you know, boom, I'm right back up to my weight, maybe a little bit more

158

[0:20:36-0:20:41]

jackiebuell: When I gained back it's rare that I'm doing something to gain back muscle at the same time I gained back fat.

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[0:20:42-0:20:44]

jackiebuell: Right? So, every time I lose, I lose lean lose fat.

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[0:20:45-0:20:53]

jackiebuell: Then I gain fat, lose lean, lose fat, gain fat. You You get where I'm going? Over time you actually become fatter and fatter from that kind of behavior.

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[0:20:53-0:20:59]

jackiebuell: And I wholeheartedly believe that I see this quite a bit in my practice and most people who are in this situation will go, Yep, that's right.

162

[0:20:59-0:21:08]

jackiebuell: That's exactly how it feels. So, let's stop that big low-calorie dieting and try to get ourselves on a meal plan that helps us whittle back over time.

163

[0:21:09-0:21:14]

jackiebuell: We also know from the research literature that people that lose weight slower are more apt to keep it off,

164

[0:21:15-0:21:26]

jackiebuell: Then people who lose weight quickly. And so even though it was Spring Break time and then people in February wanted to lose XYZ pounds by spring break, not a good idea to try to cram that all in.

165

[0:21:27-0:21:38]

jackiebuell: Let's get that meal plan on there. Okay. So, I imagine I'm a flying along talking about this stuff, I imagine some of you have questions. And again, we're glad to take those at the end so.

166

[0:21:39-0:21:45]

jackiebuell: I do get a few people who want to gain weight. And I have a few things to say here. On my last slide

167

[0:21:46-0:21:54]

jackiebuell: I meant to make a comment about how deprived people make themselves feel when they're dieting. Right? That gal didn't let herself have donuts.

168

[0:21:55- 0:22:00]

jackiebuell: She didn't let herself have salad dressing or chickpeas or anything else greatly nutrition

169

[0:22:01-0:22:11]

jackiebuell: On her salad. She didn't let herself have an afternoon snack. So, no wonder by the middle of the afternoon she's feeling a little bit abused and when we feel a little bit abused, what's that mean? Over eating becomes easier.

170

[0:22:12- 0:22:22]

jackiebuell: Right? You know, you never hear, you should never hear somebody say, wow, you're looking a little heavy these days, you ought to cut down on what you're eating.

171

[0:22:23-0:22:30]

jackiebuell: Although these people who are really thin, they will often get comments of, you are looking pretty thin, you need to eat more.

172

[0:22:30-0:22:39]

jackiebuell: What makes people believe that they can comment to one person's body and not the other person's body? Why are we talking to people about their vehicles?

173

[0:22:39-0:22:48]

jackiebuell: About their bodies, right? people who are really thin who've worked hard to try to gain weight are equally as offended as the people who are heavy who would like to lose weight.

174

[0:22:48-0:22:57]

jackiebuell: So, you got to be careful what you're saying to folks is part of what I wanted to comment on both of these. Okay. So, if I go back a slide. Have a look at what these bullet points look like.

175

[0:22:58-0:23:13]

jackiebuell: Eating every few hours, eating to fuel yourself, anything to stimulate your muscles, eating every few hours, eating to fuel yourself, anything to stimulate your muscles. No meal skipping, trying to be about 300 to 500 calories different on this weight gain slide.

176

[0:23:13-0:23:20]

jackiebuell: Right? They really look similar to how much it's a matter of how much you're eating each time. What's your overall calorie goal set at

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[0:23:20-0:23:31]

jackiebuell: And how much are you eating each time. You see when people want to gain weight, I don't want them to eat 1500 calories in one setting. that's going to help you gain all way. It's not going to help you gain lean

178

[0:23:32-0:23:37]

jackiebuell: Going to help to gain more fat. Right. And so, we want to spread that out throughout the day, if we want to gain consistently.

179

[0:23:38-0:23:42]

jackiebuell: Okay, so the last bullet point on there, then, is nothing magical about overconsuming protein.

180

[0:23:43-0:23:49]

jackiebuell: Uh, so, I want this to move us kind of into our protein needs section of my presentation. So, now we're going to talk about macros. Okay.

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[0:23:50-0:23:56]

jackiebuell: Um, before we move on to macros, let me say that um, our body types are highly heritable.

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[0:23:56-0:24:05]

jackiebuell: Meaning uh, if you're obese, your offspring has uh a higher chance of becoming obese, if parents are thin, the offspring has a higher chance to being thin

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[0:24:05-0:24:12]

jackiebuell: Um, especially when I'm working with young males who are thin and they just want to grow and put on more lean mass and want their testosterone to be there, I often say

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[0:24:13-0:24:21]

jackiebuell: Yeah, what was your, your biological father mother's growth pattern? because off often times those are fairly heritable as well. Okay.

185

[0:24:22-0:24:32]

jackiebuell: So, inheritance is a big thing there. Okay, so with protein needs the RDA, the recommended dietary daily intake, is 0.8 grams per kilogram.

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[0:24:32-0:24:37]

jackiebuell: If you really want to use the grams per kilogram, that's what I use in clinical practice to find these macros.

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[0:24:38-0:24:43]

jackiebuell: Right. You take your body weight in pounds divided by 2.2 that gives you your number of kilograms that you weigh.

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[0:24:44-0:24:53]

jackiebuell: So, instead of just presenting it that like that. I went ahead and rounded some numbers to show you that 0.8 grams per kilogram is a little less than 0.4 grams per pound.

189

[0:24:53-0:25:03]

jackiebuell: Okay. And so, if I had 170-pound person, I multiply pounds by that factor of 0.4, and it gives me 68 grams a day for the RDA.

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[0:25:03-0:25:16]

jackiebuell: Well, the RDA was designed to keep most healthy people out of malnutrition, out of protein starvation. Okay. It is not necessarily the same as what a lot of us are seeing as optimal

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[0:25:17-0:25:25]

jackiebuell: Protein intake. And so, working with athletes and you can see my second bullet point in the sports world, we're using 1.7 grams per kilogram

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[0:25:26-0:25:35]

jackiebuell: In most settings, as the top number of grams per kilogram protein an athlete can use to build muscle. If you have somebody who's young and they are still

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[0:25:35-0:25:40]

jackiebuell: Uh, growing longitudinally still getting taller, as well as putting on muscle mass, that number might go a little bit higher.

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[0:25:41-0:25:47]

jackiebuell: Uh, but in general, I don't think I ever use anything above about 2.2. I know some of my uh,

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[0:25:47-0:25:52]

jackiebuell: Friends who are doing other kinds of diet manipulations will sometimes use up to 2.4

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[0:25:52-0:25:59]

jackiebuell: Grams per kilogram. I think the American strength coaches Association says 2.4, you don't hear much higher than that. Okay.

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[0:25:59-0:26:07]

jackiebuell: But let's say that this 1.7 is what we're trying to get at. The 1.7 grams per kilogram would be about 0.8 grams per pound.

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[0:26:07-0:26:20]

jackiebuell: And in that case, this 170-pound person would need about 132. You see, so, about double of what the RDA is and this is what a lot of folks, uh especially in the sports world are considering optimal.

199

[0:26:21-0:26:33]

jackiebuell: I will also mention that for weight loss, any weight restricted diet, you want that protein to be a little bit higher to try to keep people from losing their lean mass, to try to stimulate that lean mass and have planning for that.

200

[0:26:33-0:26:40]

jackiebuell: Okay. So as we age there's a lot of focus on sarcopenia, which means muscle

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[0:26:41-0:26:50]

jackiebuell: loss over time. Right, so sarcopenic obesity is that person whose lost muscle mass over time, yet they still weight what they used to

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[0:26:50-0:26:56]

jackiebuell: Um, and it puts you in a hard place. You're not able to get around as well as you used to, because you don't have the muscle mass to help you with that.

203

[0:26:57-0:27:10]

jackiebuell: So, we want our older population to have a little bit more protein as well. And again, this 1.7 is adequate for anybody. I think the last number I saw on males in their 50s, was it took at least 1.5 grams per kilogram protein

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[0:27:11-0:27:16]

jackiebuell: For them to maintain their muscle mass. Okay, so um,

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[0:27:16-0:27:29]

jackiebuell: We want protein centric meals is a big deal right now talking about splitting your protein up into small snippets throughout the day and depending on your body size, but for an average size person 20 to 30 grams per meal.

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[0:27:29-0:27:35]

jackiebuell: Um, depending again on body size. If you're a really large guy, then maybe that number becomes 30 or 35.

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[0:27:36-0:27:41]

jackiebuell: But, taking in more than 45 or 50 grams in any one setting is really kind of wasting that protein.

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[0:27:41-0:27:54]

jackiebuell: What you'd rather do let's say it's a protein drink that you're using for exercise recovery, then drink half of it now, and drink half of it as part of a snack later or something like that. Okay, don't waste that protein. It's pretty expensive.

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[0:27:54-0:28:04]

jackiebuell: Um so again, these protein foods uh, that I want you to realize uh, milk or dairy products, meat, cheese, eggs, beans, these are the kinds of things, of course, that have protein in them.

210

[0:28:04-0:28:12]

jackiebuell: Um I I anticipate we're going to get some comments later about uh, the difference in uh plant-based and animal-based proteins.

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[0:28:13-0:28:17]

jackiebuell: Animal based proteins have all of the essential amino acids that our bodies need.

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[0:28:18-0:28:33]

jackiebuell: You can still get those in plant-based proteins, you just want to eat a wide variety of plant-based proteins in order to get that. So, you don't want to live on rice alone for a long period of time. And I hope there are no vegetarians doing that anyway. Okay. But that's the deal with

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[0:28:34-0:28:38]

jackiebuell: animal proteins, being a better-quality protein, if you will, then plant based.

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[0:28:39-0:28:49]

jackiebuell: Plant based proteins have an added benefit of being full of antioxidants. And so, depending on what's going on with you. You might want to think about making some more of your proteins plant based as well.

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[0:28:49-0:28:59]

jackiebuell: And again, uh, I'll take any questions, relative to that as we get to it. So, we need to personalize this protein idea just like we've personalized the calorie stuff so

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[0:28:59-0:29:08]

jackiebuell: If you've got kidney disease or liver issues, I want you to be careful about just jacking your protein up. You need to talk with your physician, your nurse practitioner

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[0:29:08-0:29:17]

jackiebuell: About how much protein they think your body can do or meet with a dietitian, and let them think with you about that. We have dietitians who do nothing but kidney and liver disease kinds of things.

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[0:29:18-0:29:26]

jackiebuell: Let them help you with it. Um, but again, I had a fellow a few years ago that had a kidney disease, he was a firefighter. So, he's got some athlete needs.



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[0:29:26-0:29:33]

jackiebuell: Uh, as he's trying to keep his lean mass I started doing the research of how much protein, am I able to let him have, if you will, in his diet.

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[0:29:34-0:29:41]

jackiebuell: Uh, took it up with this physician and the physician was fine uh, with the 1.7 level that I really wanted him to have. That's not you.

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[0:29:41-0:29:49]

jackiebuell: That's him. So, make sure you talk to your practitioner about how much protein they feel is too much and again a dietitian can help you with that too.

222

[0:29:50-0:30:00]

jackiebuell: Okay, if you are a healthy person, you don't have kidney disease, you don't have any liver issues, there is no evidence showing us that high protein diets harm our kidney or our kidneys or liver.

223

[0:30:01-0:30:12]

jackiebuell: Okay, for unhealthy people. So, um, I've even seen studies where people are doing 3 or 4 grams per kilogram and they'll do it over a period of time, and they'll show you all their liver markers and their kidney markers.

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[0:30:12-0:30:21]

jackiebuell: And everything looks just fine. There are studies on athletes two years, a little bit longer, a basketball study that I saw. Uh, and it's showing that there's no harm done.

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[0:30:21-0:30:25]

jackiebuell: Uh, for somebody that's got healthy kidney and livers. Okay, so,

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[0:30:25-0:30:32]

jackiebuell: I I it is intuitive. For those of you that are healthcare practitioners, the way we break protein down in our body is in our liver

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[0:30:32-0:30:40]

jackiebuell: And then we get rid of it through our kidneys. Get rid of it. Meaning, get rid of the nitrogen, that gets denominated through our kidneys. So, it makes sense that

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[0:30:40-0:30:44]

jackiebuell: Uh, eating a high protein diet will stress those systems more.

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[0:30:44-0:30:57]

jackiebuell: You gotta drink a lot of water. It takes a lot of water to flush our system. It takes a lot of water to break protein down, so, you go on a high protein diet, you want to be sure that you're on top of your game in terms of hydration as well. Okay. Uh, but again,

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[0:30:57-0:31:04]

jackiebuell: Uh, I don't feel like 1.7 grams per kilogram even up to 2.2 or so is going to do anybody harm.

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[0:31:04-0:31:16]

jackiebuell: Let me say this about personalizing your diet, man. If you change what you're doing in your diet and you don't feel well, is that the right diet for your body? Our bodies have great intuition. You just got to listen to it. Got to figure out what's right for you.

232

[0:31:18-0:31:27]

jackiebuell: Okay. That's protein. Let's look at carb needs. And I think this one's even harder. Um, I think protein straightforward. I call protein my enough is enough nutrient.

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[0:31:28-0:31:33]

jackiebuell: You want enough. But once you've got enough, that's enough. So, there's a range of what we think is good in terms of protein.

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[0:31:33-0:31:41]

jackiebuell: Carbohydrate depends on what your activity level is. Somebody's an athlete I want them to have quite a bit of carbohydrate to help them stay fueled, okay.

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[0:31:41-0:31:51]

jackiebuell: Um yeah uh, people who are diabetic or pre diabetic, I want them to be careful how much carbohydrate they have because that's what's potentially going to further their diabetes issue.

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[0:31:51-0:31:55]

jackiebuell: Okay, so, genetics is a big piece of our carb tolerance.

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[0:31:56-0:32:06]

jackiebuell: In addition, we have a lot of GI issues that people have these days. And some of these are things like celiac disease and stuff like that, where there's somewhat of a genetic component to the autoimmune piece of that.

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[0:32:06-0:32:17]

jackiebuell: Right, and so we get this clustering of auto immune uh, issues in different families. And so, in my opinion, this is where we really need to to personalize okay, so uh,

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[0:32:17-0:32:23]

jackiebuell: a person with diabetes, obesity GI issues. We all tolerate carbohydrate differently. And by that, I mean um,

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[0:32:24-0:32:30]

jackiebuell: You know, some people can eat the heck out of carbohydrate and have 60-70% of their diet in carbohydrate and never gain a pound from it.

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[0:32:31-0:32:36]

jackiebuell: Other people eat that much carbohydrate and they're going to gain quite a bit of weight, even though they might be eating the same calorie level.

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[0:32:36-0:32:48]

jackiebuell: Okay, so um, some people are insulin resistant and that doesn't help them uh, with their issues, right. So, we all tolerate carb in terms of our insulin resistance, as well as our GI systems.

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[0:32:49-0:32:58]

jackiebuell: Um, I wanted to, I put it on this slide to remind me to talk about it. Our micro biome is significantly impacted by what we eat. So, your micro biome is this

244

[0:32:58-0:33:11]

jackiebuell: Idea that we have bacteria, bugs, that normally reside in our colon and their purpose in life is to help us digest different things and extract different nutrients, form the bulk of our feces.

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[0:33:11-0:33:24]

jackiebuell: Um, we now know that the gut brain axis, the gut communicates easily with the brain. There are all kinds of things they're coming out with now in terms of micro biome research. People that are struggling to lose weight

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[0:33:25-0:33:32]

jackiebuell: Probably ought to read some of this literature and think about whether or not they want to be on a good probiotic. Um, we talk about prebiotics.

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[0:33:33-0:33:42]

jackiebuell: And probiotics. Probiotics is trying to take the cultures that you want to live there. Prebiotics are trying to feed the cultures that live there.

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[0:33:42-0:33:49]

jackiebuell: Right, and so sometimes your probiotic prebiotic will be together. But a lot of these carbohydrates that we eat

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[0:33:49-0:34:00]

jackiebuell: Are prebiotics, meaning they feed our micro biome. So, you don't want to just wipe it out without a good reason to do, so you want to personalize your nutrition from that perspective.

250

[0:34:00-0:34:06]

jackiebuell: Okay. Uh, the other thing I wanted to mention here are food addiction issues. There are some great YouTube's out there.

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[0:34:06-0:34:18]

jackiebuell: Gotta be careful, again, what all you believe, but they're good for you to think about. Where it shows videos of looking at people's brains when they take sugar into their mouth and there are people who their brain lights up, just as if they were on drugs.

252

[0:34:18-0:34:32]

jackiebuell: Um, when they take sugar in their brain. We'll often joke about, I'm um, a little uh, carb addicted, I'm a little sugar addicted. You know, if you are you got to start thinking about that because the added sugars are probably part of what does us the most damage, uh, in our diet.

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[0:34:33-0:34:39]

jackiebuell: So, the current DRI, for carbohydrates, to have at least 130 grams a day and that's just to support your brain, right

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[0:34:40-0:34:44]

jackiebuell: Um, if I have somebody that I think is probably carb intolerant in terms of insulin resistance

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[0:34:44-0:34:51]

jackiebuell: I'll probably start them on a normal next diet first. Then I'll probably have their carbohydrates, depending on their body size. I'm talking about a female

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[0:34:52-0:34:58]

jackiebuell: 150-180 calories or 180 grams rather of carbohydrate. Right, so you want at least 130

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[0:34:58-0:35:06]

jackiebuell: If you're trying to eat a normal mix diet and then up just a little bit from there is just fine. It has to be that, if you're going to get the fruits in that I want you to get. Okay.

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[0:35:06-0:35:16]

jackiebuell: So, when you look at the acceptable macro nutrient distribution range, set by our federal government, 45 to 65% of your calories is what this should make up. Right,

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[0:35:16-0:35:27]

jackiebuell: Thought it might be good just to throw up here, uh, the fiber needs for women, as well as for men, in grams. You know, it's a good activity for you to try to figure out, am I getting enough fiber in my diet?

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[0:35:28-0:35:31]

jackiebuell: Specs especially if your backsides not working the way that you want it to.

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[0:35:31-0:35:38]

jackiebuell: When you increase protein, when you increase fiber, all those things at the same time, you're really going to increase your fluid intake or you're going to be constipated.

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[0:35:39-0:35:49]

jackiebuell: Okay, so, uh, be sure that you're you're getting your fluids. When I say too much fibers not a good thing, we think that once a person gets above 50 or 60 grams of fiber in their diet a day

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[0:35:49-0:35:57]

jackiebuell: Uh, that you're you have the potential of binding out some of the minerals that you need. We know some of those minerals attach our are attached to the fibers.

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[0:35:58-0:36:04]

jackiebuell: Um, so we want to be careful about actually getting too much as well. Again, under physician's guidance, don't worry about this.

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[0:36:04-0:36:15]

jackiebuell: Uh, but but, trying to give you some general things to personalize your diet with. So, I think I've probably talked about a lot of these things under individualized and carbohydrate on that prior slide.

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[0:36:15-0:36:19]

jackiebuell: Um, and of course there are different tests that we do for diabetes and pre diabetes.

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[0:36:20-0:36:28]

jackiebuell: Um, the one on there that you might not be aware of, I think most of you would know insulin resistance as a word, most of you would know that your doctor looks at hemoglobin, a1c

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[0:36:28-0:36:38]

jackiebuell: Or that they look at a fasting or a non-fasting blood glucose when they do our biometrics. Um, having high triglycerides is one of the things I look at in terms of somebody insulin resistance.

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[0:36:39-0:36:48]

jackiebuell: Uh, we know that folks on a high sugar diet often have higher triglycerides. You can get them back off that sugar a little bit, it'll improve those triglycerides. So, um,

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[0:36:48-0:36:58]

jackiebuell: You know, even if somebody's not on a high sugar diet, if they're diabetic, their body proceeds are on a high sugar diet. So, they're going to have higher triglycerides. So again, you want those triglycerides below about 150.

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[0:36:59-0:37:07]

jackiebuell: And uh, when those and your hemoglobin a1c is a little high uh, it's probably time to get worked up for some pre diabetes or diabetes.

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[0:37:08-0:37:14]

jackiebuell: I've put on here the low FODMAP diet. This is not something I work with a lot, but I have quite a few folks uh, around me that do.

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[0:37:15-0:37:24]

jackiebuell: Let me look up, I want to make sure I've got it right. That fermentable oligo-, di-, mono-saccharides and polyols, it's a lot easier to say FODMAP.

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[0:37:24-0:37:32]

jackiebuell: But basically, a low FODMAP diet means that you're dropping out of your diet some of these complex carbohydrates that you think are causing you to bloat.

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[0:37:33-0:37:35]

jackiebuell: Okay. And so, I'll get a lot of people that say, then after I eat

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[0:37:36-0:37:45]

jackiebuell: um, I get I get I get all this bloating and this uncomfortable and I'm pointing to my lower intestines right now. You can't see that. But that's about what they're describing and I like to differentiate.

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[0:37:45-0:37:54]

jackiebuell: Is your upper stomach hurt? or is your lower stomach hurt? And when that lower stomach is what's really bothering them, that's more than likely some of this GI system piece

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[0:37:54-0:38:02]

jackiebuell: uh uh, coming into that. Right. So, um, know that a low FODMAP diet is not what we think about when we think micro biome health.

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[0:38:02-0:38:10]

jackiebuell: So be careful just going on a low FODMAP diet unless you've got a reason to and then be really intentional about the carbs that are in your diet, they're going to help your microbiome.

280

[0:38:11-0:38:20]

jackiebuell: Okay. So, I've got a bullet point here about cutting back on those added sugars. Don't know if you know it, but we have brand new food labels out there these days. And by now, most of them should be in effect.

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[0:38:21-0:38:30]

jackiebuell: I think uh, that the USDA, FDA first put down these guidelines these new guidelines in 2016. In 2018 they started forcing people to be implemented into them.

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[0:38:30-0:38:39]

jackiebuell: And then uh, our large manufacturers had to be in first, and then our smaller manufacturers by now, by January 2020, everybody's supposed to be converted to these

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[0:38:39-0:38:47]

jackiebuell: uh, new food labels. So, on a new food label, it says right on there, says, carbohydrate, meaning total carbohydrates, often it'll say fiber

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[0:38:47-0:38:52]

jackiebuell: And then it'll say sugars and inset from sugars, it has to say added sugars.

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[0:38:52-0:39:03]

jackiebuell: Right, so you can tell how much is added sugar. Things like milk and yogurt have some sugar in them because of the lactose that's in there, of the sugars that are naturally in that milk.



286

[0:39:03-0:39:12]

jackiebuell: But when they've added a bunch to it on top of that, when you want to pick out that it's an issue. Okay. Our body sees sugar as sugar. So, don't be taken in a bunch of extra sugar, if you can help it.

287

[0:39:12-0:39:21]

jackiebuell: I like to do this little demonstration when I'm in person with folks. Uh, where we can divide that number by 4 to see the number of teaspoons. So, for instance,

288

[0:39:22-0:39:29]

jackiebuell: I have in the lab this little Activia. Wow. I shouldn't say that. Should I? shouldn't poo poo any products. But let's say I have a yogurt.

289

[0:39:29-0:39:37]

jackiebuell: And it's in a green container. So, we believe it's healthy. And it's the one that's advertised for good gut health.

290

[0:39:38-0:39:46]

jackiebuell: And so, we think, oh, and it's a Greek yogurt so it's got a little extra protein, and it must be good for me. I'm going to eat that. When I flip it over and read the label

291

[0:39:46-0:39:56]

jackiebuell: It's got 32 grams of total carbohydrate in it. Right. And mine must be an old label because it doesn't have the added sugars in it yet, but a serving portion, like that of of

292

[0:39:56-0:40:09]

jackiebuell: Yogurt should have about 12 grams of carbohydrate in it. It shouldn't have 32. So, 32 minus the 12 that's complex carbohydrate or that's that's not added to it.

293

[0:40:10-0:40:13]

jackiebuell: Is 20. Divide that by four. That's how many teaspoons of sugar

294

[0:40:14-0:40:23]

jackiebuell: Are added to that product. Get your little sugar bowl and your teaspoon out and count it out for yourself. When in the world would you ever put five teaspoons of sugar in your yogurt?

295

[0:40:23-0:40:35]

jackiebuell: Ooh! Okay. So, uh, might be something to help you with kiddos who have a sweet tooth as well. I know when my kids were little, they hated it when they saw the sugar bowl coming out because I was getting ready to teach him about the drink they were drinking.

296

[0:40:35-0:40:43]

jackiebuell: Uh, and again, a lot of people say, well, how do you get kids not to drink drinks like that? No, I let mine have it. It wasn't food war. We're not going to be a food war.

297

[0:40:43-0:40:50]

jackiebuell: But you best bet if that mountain dew was still sitting there an hour later it was going away because they're not paying any attention to it.

298

[0:40:50-0:40:56]

jackiebuell: Okay. So, I don't know if that's the right strategy or not. It certainly seemed to work well for us. Okay.

299

[0:40:57-0:41:01]

jackiebuell: Look at fat in the diet than 25 to 35 or 20 to 35% of the calories in your diet.

300

[0:41:01-0:41:12]

jackiebuell: And most people go, wow, that's like a third of my calories. It is but, fat is much more dense than carbon protein, in terms of their calories. So, it's really not that much fat and I'm going to give you some examples here in a minute.

301

[0:41:12-0:41:25]

jackiebuell: I want us to talk about essential fatty acids. I've got those to talk about. Uh, and then uh, when adding uh, fats, choose to add things like these uh, monounsaturated fats that I'm telling you about here. Okay. So,

302

[0:41:25-0:41:32]

jackiebuell: Um, I'm going to take our 170-pound person here and I'm going to show you, I I did the math on her offline.

303

[0:41:32-0:41:42]

jackiebuell: Uh, using that DRI calculator. It even tells you what your BMI is, so, she's a little, little, little overweight comes in and wants to lose some weight. She needs 2000 calories-ish.

304

[0:41:43-0:41:56]

jackiebuell: Right. So, if she wants to lose weight, I might put her at 1700 so if 1700s, my goal. I take my protein and and she happened to weigh 170 pounds. Again, I showed you earlier that I wanted that person on about 132 grams of protein.

305

[0:41:57-0:42:03]

jackiebuell: If I want her to have about 30% fat in her diet, which is kind of a nice level place to put people, that's 510 calories.

306

[0:42:04-0:42:13]

jackiebuell: You find the grams by dividing fats by 9. So, it's 57 grams. That is not a high fat diet at all, most people would struggle to only eat that much. Okay.

307

[0:42:14-0:42:28]

jackiebuell: And so minus protein minus fat is our carb. I show you here how I calculate the carb. Know that both protein and carbohydrate have 4 calories per gram. That's why those fours are in there, whereas fat has 9 per gram.

308

[0:42:29-0:42:38]

jackiebuell: Okay. So, I I I was worried about whether I would have uh, enough stuff to give you guys today and we're looking

309

[0:42:38-0:42:47]

jackiebuell: Pretty good on time already, in terms of 12:44. So I'm going to kind of go through these slides quickly, but you've got the resources in front of you. If you decide you want to explore it.

310

[0:42:47-0:42:50]

jackiebuell: And of course, I'm always glad to get emails from colleagues, so

311

[0:42:51-0:42:56]

jackiebuell: Um, you hear a lot about the Omega three fatty acids being this nice anti-inflammatory fatty acid.

312

[0:42:56-0:43:08]

jackiebuell: What some people don't realize Omega six fatty acids also exist in all these fats that we eat. We would like this ratio to be at uh a great place uh, two, three, six or so.

313

[0:43:08-0:43:18]

jackiebuell: Uh, to one, so six is probably a little high, but omega six to omega three for this inflammation. Um it's best to get your Omega threes, which are your DHA and your EPA

314

[0:43:19-0:43:30]

jackiebuell: Uh, from fresh sources, such as eating fatty fish. Some examples of that here, a couple times a week. We live in Central Ohio. It's not very easy to get that kind of fresh fish that we really like

315

[0:43:31-0:43:42]

jackiebuell: All the time without spending some money to get it. So, uh, depending on your income, you might be able to do that. The other thing, people are doing is taken up the alpha linoleic acid, the ALA.

316

[0:43:42-0:43:51]

jackiebuell: And and if we looked at the biochemically biochemistry pathways for these, It starts out as this ALA and then downstream, it becomes the EPA, the DHA.

317

[0:43:51-0:44:02]

jackiebuell: Uh, but our body, the DHA is what we want for our brain. Uh, and for a lot of our anti-inflammatory. So showing you here, these different seeds are good ALA sources.

318

[0:44:02-0:44:04]

jackiebuell: You may not realize it, but you should grind your own.

319

[0:44:05-0:44:18]

jackiebuell: All of these are made out of polyunsaturated fatty acids and polyunsaturated means that there's a point that can easily be oxidized and you don't want that oxidation to happen. You don't want the fat. You don't want that seed the start to taste ransom.

320

[0:44:18-0:44:26]

jackiebuell: Uh, rancid rather uh, rancid meaning spoiled kind of a funny and off taste to it, if you will. You've probably experienced that kind of thing in your oils in the kitchen.

321

[0:44:27-0:44:33]

jackiebuell: Okay. So you want to keep them in an airtight container, grind your own right before you use it, put them in that smoothie if you're going to.

322

[0:44:34-0:44:45]

jackiebuell: Thought it might be good to share a few things about dietary supplements. The uh, Office of Dietary Supplements or the uh, Office of Dietary Education. That was funny. So, the Office of Dietary supplements for the NIH.

323

[0:44:45-0:44:55]

jackiebuell: Uh, has a lot of nice fact sheets there. In fact, you can learn more about fish oils there and it'll give you some information about that. But if you're going to try to get your Omega threes from

324

[0:44:56-0:45:03]

jackiebuell: Uh, fish oil pills or from omega three pills you want it to be something that's third party verified. This USP stands for United States Pharmacopoeia.

325

[0:45:04-0:45:14]

jackiebuell: And it ensures that what's in this bottle is what it says it is. And it's not laced with lead or anything like that, and that it absorbs it it uh, digests uh,

326

[0:45:14-0:45:23]

jackiebuell: In your body, gets absorbed in your body. So, it's got some really good assurances with it, if you will. Any vitamin, mineral supplement you want to take look for this USP verification.

327

[0:45:24-0:45:30]

jackiebuell: Okay. With EPA and DHA, in particular, you got to check the label for storage. Some of them need to be kept in the fridge.

328

[0:45:31-0:45:39]

jackiebuell: Uh, some people say if you keep them in the fridge, you don't get the fishy burps as much. Uhh, and then looking at your dosage, you don't want more than about 2000

329

[0:45:40-0:45:50]

jackiebuell: uh, milligrams in a day as a supplement. Okay. So looking at cardiovascular disease prevention and this comes from the American College of Cardiology website.

330

[0:45:51-0:46:01]

jackiebuell: Dietary pattern that emphasizes intake of vegetables, fruits, whole grains, legumes, healthy protein sources such as low dairy products, low fat poultry, without the skin

331

[0:46:01-0:46:13]

jackiebuell: Fish, seafood, and nuts and non-tropical vegetable oils, and limits the intakes of sugars, sugar sweetened beverages, and red meats. Okay, this is what they're saying helps us avoid cardiovascular disease.

332

[0:46:13-0:46:15]

jackiebuell: We come here to the high blood pressure slide.

333

[0:46:16-0:46:25]

jackiebuell: You know the newest guidelines brought those blood pressure thresholds down even a little bit more. So, if you're marginally high in your blood pressure and you want to bring it down. There's no doubt that this

334

[0:46:25-0:46:35]

jackiebuell: uh, diets to stop hypertension, uh, the DASH diet is the best diet to use to help you control your hypertension. Again, look at the foods that are on here.

335

[0:46:36-0:46:45]

jackiebuell: There's nothing different about those in the previous slide. And these are the kinds of things that we think, does it do us more damage. Okay. Same information and so, uh,

336

[0:46:45-0:46:57]

jackiebuell: Want to talk a little bit on osteoporosis. Again, high genetic load, high genetic load for your blood pressure, high genetic load for your heart disease, high genetic load for osteoporosis. Right. And so, uh,

337

[0:46:57-0:47:05]

jackiebuell: Genetically 60 to 80%. So, if you've got mom or grandma in your family that already has osteoporosis, you ought to be considering what can I do for my bones now.

338

[0:47:06-0:47:13]

jackiebuell: Don't wait until you're in menopause and it's a little bit too late. I wish we could get all young women on the dexa machine so they knew what their bone health looked like.

339

[0:47:13-0:47:18]

jackiebuell: But that's not going to happen anytime soon. Alright. So diet wise, of course, calcium and vitamin D are important.

340

[0:47:19-0:47:26]

jackiebuell: I've given you some uh, levels here for vitamin D. You want them to be at least 30 but more than likely up around 45 or 50.

341

[0:47:26-0:47:34]

jackiebuell: They do not need to be up at 80 and 100 nanograms per milliliter. Okay. And then people often say, what's the best thing for me to do for my bones?

342

[0:47:35-0:47:37]

jackiebuell: Uh, in terms of osteoporosis. Eating enough

343

[0:47:38-0:47:47]

jackiebuell: Getting enough protein, making sure your calcium and vitamin D are adequate. We've got some other nutrients like vitamin K phosphorus that are in there, but we typically are doing fine on those.

344

[0:47:47-0:47:54]

jackiebuell: And then to exercise. We want novel impact exercise. Unfortunately, a lot of people say, well, and I'll start running. That's impact right?

345

[0:47:54-0:48:01]

jackiebuell: Well, it is impact, but it's not novel impact. You're hitting the same way, time after time after time and you're just putting an energy drain on your system. So, they're fun. They're uh,

346

[0:48:02-0:48:10]

jackiebuell: Surprised to see that a lot of my research shows that the lumbar spine and the risk bone density in runners doesn't look as good as it does in an average person who doesn't exercise.

347

[0:48:10-0:48:12]

jackiebuell: Yep. That's what I said.

348

[0:48:14-0:48:21]

jackiebuell: Looking at osteoarthritis, then this would give us a little bit here to look at in terms of anti-inflammatory foods. Think about the list I shared with you earlier.

349

[0:48:22-0:48:29]

jackiebuell: Same kinds of foods, we're talking about, again, highly anti-inflammatory because of their bright colors and fruits and vegetables.

350

[0:48:29-0:48:35]

jackiebuell: Okay. Potassium and magnesium are really important to get in the diet. And that's what we get from our fruits and vegetables as well.

351

[0:48:35-0:48:41]

jackiebuell: So, for osteoarthritis folks need to get their body weight down to a normal place and they need to be sure they're getting good sleep as well.

352

[0:48:42-0:48:50]

jackiebuell: A lot of research talking about folks who don't get enough sleep have a harder time managing their weight than folks who sleep seven to eight hours good sleep seven to eight hours a night.



353

[0:48:51- 0:49:01]

jackiebuell: So, sleep quality for somebody that's slightly overweight uh, typically you'll have a little bit sleep apnea. That's not good quality sleep. So, you want to get those kinds of things corrected medically as you can.

354

[0:49:01-0:49:08]

jackiebuell: This is just a little table here, I've given you the uh, reference for it. So, this is nutrition and clinical practice journal

355

[0:49:09-0:49:13]

jackiebuell: Uh, and again, uh, you can go to that journal. It's free, through our library website.

356

[0:49:14-0:49:26]

jackiebuell: And you can find this article and examine this for yourself. But basically, just trying to show you the same stuff. What we do in a standard American diet is not what these people who live a long time and have a high anti-inflammatory diet do.

357

[0:49:27-0:49:35]

jackiebuell: Okay. And then these are just some examples of the kinds of things people are trying these days. Uh, maybe a physician tells them to do some tart cherry juice for their

358

[0:49:35-0:49:46]

jackiebuell: Uh gouty arthritis. Again, you're kind of fighting inflammation with that uh, as well some of the active ingredients in it. So, I wanted to comment on the spices, turmeric, curcumin

359

[0:49:46-0:49:52]

jackiebuell: Um, there is a little bit of research showing us that people that take these in a dietary supplement.

360

[0:49:53-0:50:04]

jackiebuell: Some might have a liver that doesn't do so well with that. So, there are some case studies out there. So, know that when you start something new, start one thing new so, that if it's not sitting well with your body in some way, you get to learn that, right.

361

[0:50:05-0:50:18]

jackiebuell: Uh, but, cooking with these things have at it. Great idea. Okay. And again, some foods that fight inflammation and what I'm trying to show you this looks exactly like the list of foods that I showed you earlier, and the list of foods that cause inflammation.

362

[0:50:21-0:50:28]

jackiebuell: Okay, so um, at this point, uh I I do want us to have a little bit of time for um, some questions.

363

[0:50:28-0:50:36]

jackiebuell: uh, I I want to tell you guys, though, you get three free nutrition visits with a dietitian each plan year.

364

[0:50:36-0:50:45]

jackiebuell: Um, I've provided through Nicole list of the practitioners that we have at Ohio State. Not all of those will be ones you can schedule with. But if it's an outpatient facility,

365

[0:50:46-0:50:53]

jackiebuell: You can schedule with them. You don't have to have a physician referral. If you're on OSU's insurance, our insurance covers it completely.

366

[0:50:54-0:51:00]

jackiebuell: So, when you meet with me. We're going to meet for an hour the first time, and probably 30 or 45 minutes each time after that.

367

[0:51:00-0:51:10]

jackiebuell: And even at that, if you know somebody that's not on OSU insurance, 75 bucks for the hour, 45 bucks for a return visit. Not cost prohibitive, we hope, anyway, right.

368

[0:51:11-0:51:18]

jackiebuell: Um, so, there's also this free health coaching that we have, giving you the link here. Be sure that your accessing that if you'd like to.

369

[0:51:18-0:51:27]

jackiebuell: Um, the faculty, staff and fitness program is something that sometimes it's a well-kept secret, doesn't mean to be. Emily Martini over at exercise science runs that program.

370

[0:51:27-0:51:30]

jackiebuell: Uh, but they would welcome you to come over and learn how to work out.

371

[0:51:31-0:51:40]

jackiebuell: Um, and again, it's not cost prohibitive. There are a lot of discounted uh, physical activity place memberships, of course, none of those happen to be open at the moment, none of those happened to be open at the moment.

372

[0:51:40-0:51:46]

jackiebuell: Uh, but we'll get back to life as we know it. We hope. So, uh, again, my clinical stuff

373

[0:51:47-0:51:53]

jackiebuell: Listed here for you. I like to use the iDXA for body composition. When somebody comes to me and I says, I want to lose weight.

374

[0:51:54-0:52:04]

jackiebuell: I would like that weight loss to be fat not muscle. Sometimes people come to me and and I have a guy right now who weighs 220 and I looked at him and I go, you do not look like you weight 220.

375

[0:52:05-0:52:12]

jackiebuell: And so, let's get him on the iDXA and let's find out is it primarily muscle. Because if it is, yay him. Now, let's just work it with like slowly.

376

[0:52:12-0:52:20]

jackiebuell: If he's really that heavy and his BMI at a 31 uh, is really from being that heavy and its really body fat then it's a whole different pathway.

377

[0:52:21-0:52:26]

jackiebuell: So, you have to have a script from your docs saying iDXA for body composition and we get ya on here for 50 bucks.

378

[0:52:26-0:52:34]

jackiebuell: So, the RMR we've already discussed a little bit. This is the phone number for an appointment with me or my colleague Casey Maverick over at the Crane.

379

[0:52:34-0:52:48]

jackiebuell: Um, the number is uh, Nicole will distribute that handout that has all of our other dieticians listed on it as well. So, a lot of resources at Ohio State. So, what kind of questions do we have unmute yourself there, my friends, Josh, Nicole.

380

[0:52:48-0:52:56]

Josh Winn: Yea, So I'm just going to go through these real quick, uh thanks for everyone who submitted those through the uh, group chat. So, we'll go through these one by one.

381

[0:52:56-0:53:04]

Josh Winn: Uh, the first one was from Megan. Uh, What do you think about uh, individuals trying to lose fat and maintain the mass and supplementing with protein powder?

382

[0:53:05-0:53:11]

jackiebuell: I think, I think the first two pieces of that losing fat and keeping their lean or even adding lean, absolutely doable.

383

[0:53:11-0:53:21]

jackiebuell: If protein powder is your choice about how to do that, then I want my clients to use some kind of a third party approved uh protein powder and I have resources that I can share with ya.

384

[0:53:22-0:53:29]

jackiebuell: Um Megan, if you want to email me. I'm glad to share that handout with you or anybody else for that matter. Uh, third party uh,

385

[0:53:29-0:53:40]

jackiebuell: assures that it has the protein in there that it says it has there. A lot of games going on with dietary supplements right now. You could be taken a protein powder that doesn't have much protein in it at all and not know the difference.

386

[0:53:41-0:53:54]

Josh Winn: Absolutely. Uh, Next question is from Tanya. Uh, she asked a question about uh, the uh, fat disorder lipedema. And if you've heard of that. Uh, what is your thoughts and any ideas on diets to follow?

387

[0:53:55-0:54:01]

jackiebuell: Yeah, I gotta tell you that that one's beyond the scope of what I typically practice, sorry to say that, but better than blowing smoke at ya.

388

[0:54:02-0:54:08]

jackiebuell: Um, you know, I would suggest that you meet with uh, one of my outpatient colleagues that practice either over at Morehouse.

389

[0:54:10-0:54:18]

jackiebuell: Um, probably going to be your best your best shot on that one. So, Liz Wine Andy comes to mind, any of those folks over there.

390

[0:54:18-0:54:26]

Josh Winn: This is great. Uh, the next two or I'm going to kind of couple these two together. Thoughts on the keto diet and intermittent fasting.

391

[0:54:29-0:54:30]

jackiebuell: Yeah, I knew it wasn't going to get away from that one.

392

[0:54:32]

jackiebuell: So,

393

[0:54:33-0:54:45]

jackiebuell: Uh I, I I may be different than many folks who are practicing right now. And uh, I will tell you that I'm going to answer it the way Jackie feels. That does not represent how Ohio State or some of my fellow practitioners feel.

394

[0:54:46-0:54:50]

jackiebuell: If I've tried a normal mixed diet with somebody and it's not working for them,

395

[0:54:50-0:54:58]

jackiebuell: If it's a person with metabolic syndrome where you have a bigger belly, you're uh, carrying more your body fat centrally and your legs are really pretty thin and defined

396

[0:54:59-0:55:02]

jackiebuell: Uh, that's a person with metabolic syndrome insulin resistance.

397

[0:55:03-0:55:07]

jackiebuell: I've used keto with folks to a great amount of success, to help them. Now,

398

[0:55:07-0:55:17]

jackiebuell: Jeff Bullock is also on our campus. He is a professor over an exercise science. He does a lot of studies on this. So, there is evidence, to stand behind both of these diets.

399

[0:55:17-0:55:22]

jackiebuell: Is it the same amount of evidence that we have in some of these more balanced diets, probably not.

400

[0:55:23-0:55:27]

jackiebuell: I agree with that. But it doesn't mean that we should just throw it out and not use it for an individual.

401

[0:55:27-0:55:37]

jackiebuell: I I have not done much counseling with intermittent fasting; I need to do some more reading on that before I'm going to be comfortable doing that. Some of the early stuff that came out

402

[0:55:37-0:55:41]

jackiebuell: Didn't come out the way that that I would like to see it come out. If we're going to use that with folks.

403

[0:55:42-0:55:50]

jackiebuell: Uh, but bottom line is, anything that helps you keep your calories in a more fixed a little bit lower place, it's going to help you lose weight. And there are studies showing that.

404

[0:55:50-0:55:59]

jackiebuell: Uh, regardless of what you you've used. Somebody that wants to Keto, I would probably keto them for a good six weeks or so, depending on how their weight loss is going.

405

[0:55:59-0:56:08]

Um once they reach their weight loss goal, I'm going to graduate them back to the amount of carbohydrate that their body will tolerate. So, putting some dairy, some fruit, and some whole grains

406

[0:56:09-0:56:17]

jackiebuell: Back into their diet. I didn't say bread. I agree, white bread, you got to be careful with things that are highly processed. Use whole grains anytime that you're going to eat grains.

407

[0:56:19-0:56:30]

Josh Winn: Okay. Uhh, next question here is, uh, Dr. Recommend recommendations on dieting or uh, diet plans from post-surgery or injury.

408

[0:56:31-0:56:38]

jackiebuell: Yeah, yeah. Absolutely needs to be an anti-inflammatory diet, but it needs to be enough calories to help you heal. That is not a time to be trying to lose weight.

409

[0:56:39-0:56:46]

jackiebuell: Um, and I feel strongly about that. Your your tissues need to heal. And to do that, they've got to have the building blocks to heal. Um, there's even a fair amount of

410

[0:56:46-0:56:56]

jackiebuell: uh, folks who are eating pre-surgery to prepare for surgery and then eating right up to surgery. So this is a going to be a new era in this way.

411

[0:56:56-0:57:05]

jackiebuell: Uh, talking about how we eat around surgery but without a doubt, protein sufficient on the front side. Knowing that your body's in a good place in terms of not being malnourished.

412

[0:57:06-0:57:19]

jackiebuell: And then on the backside, enough protein and enough calories, to be sure that you're allowing your body to heal. Eating all the fruits and vegetables veggies any way that you can, in terms of a lot of antioxidant power, you want your body to heal.

413

[0:57:20-0:57:35]

Josh Winn: And this is the last question, know that people uh, I'll submit these all these questions to you, if you don't mind Jackie, if you don't mind answering. But this is the last question that for uh, that we have for time. Um, you mentioned uh, the idea of 130 for carbs, can you please speak

414

[0:57:36-0:57:44]

Josh Winn: um, the difference between simple carbs and complex carbs. And, second question, would eating a lot of fruit cause high triglycerides?

415

[0:57:46-0:57:55]

jackiebuell: So, I put I think the second questions an easy pick for me. So just let me say, everybody's an individual. And for some people eating a lot of fruit might be too high sugar in the diet, however.

416

[0:57:56-0:58:04]

jackiebuell: I don't think we talked about it like that. We say eat your fruits and veggies. Nine a day, nine servings of fruits and vegetables combined. I don't care if that's three fruits and six veggies.

417

[0:58:04-0:58:12]

jackiebuell: Four and five, however you want to split that. Uh, but no doubt, eating more complex carbohydrate is better for us than it then adding these simple sugars.

418

[0:58:13-0:58:23]

jackiebuell: Uh, I think it's surprising to people with um, fruits to see how much sugar is not actually in them. Um you know, look them up and find out how many grams and do the teaspoon

419

[0:58:23-0:58:25]

jackiebuell: Thing with them so, that you can see what that looks like.

420



[0:58:26-0:58:38]

jackiebuell: Um, fruits have different glycemic index as well. So, some hit our system a little faster than others. You're an individual. If you're a person that's struggling with carbohydrate overall then let's see what we can do to get the glycemic index in your overall diet down.

421

[0:58:38-0:58:57]

jackiebuell: But yes, it could, in in theory, cause somebody to have high triglycerides. Of that 130 grams, I would like all of that to be complex carbohydrate. Now, is that doable for everybody? No. Limit the added sugars best you can. Um, a lot of the uh old intuition said less

422

[0:58:58-0:59:05]

jackiebuell: Than 10% of your calories. Some of the new stuff says less than 25% I say I think less than 25% too high.

423

[0:59:06-0:59:15]

jackiebuell: Too high. So, 130 maybe maybe 15 of those are so as simple sugar, if you're just doing 130. 130 is pretty low, but your body doesn't know the difference between

424

[0:59:16-0:59:28]

jackiebuell: The sugar and the complex carbohydrate in terms of making our blood sugar from it. Does it hit our system faster because it's simple? Yes, that's an insulin resistance issue that's a different thing.

425

[0:59:30-0:59:32]

Josh Winn: Alright, one second Nicole.

426

[0:59:33]

Nicole Johnson: Okay

427

[0:59:33-0:59:43]

Josh Winn: I had some question Um, this is just for everyone if you did not register through link to health. Um, and you have access through link to health if you can just go back

428

[0:59:43-1:00:02]

Josh Winn: Um, to link to health and register for the webinar. Um, I greatly appreciate it and we'll be able to get that email out to you. If you do not have uh access to link to health, no

worries, please email me winn.50@osu.edu and I'll make sure you're on that email. Uh, without further ado, Nicole.

429

[1:00:03-1:00:11]

Nicole Johnson: Oh uh, thank you so much. Jackie, that was a great presentation, looking all the questions and comments, people really enjoyed it. Lots of good information.

430

[1:00:12-1:00:26]

Nicole Johnson: Like Josh said we'll be sending out a follow up email with some of the answers to these questions as well as a uh, evaluation, if you guys would please take a couple minutes to fill that out, we would greatly appreciate it.

431

[1:00:27-1:00:32]

Nicole Johnson: And again, thank you so much. Jackie, and have a great weekend everybody.

432

[1:00:33-1:00:34]

jackiebuell: Be well everyone

Ends