

PREVIEW - Jeffry Gerber - Denver (2019)

Dr. Jeffry Gerber: There's this spectrum of insulin, the insulin spectrum that we use clinically to determine where somebody is. So, we have the insulin-sensitive on the left and the full-blown diabetic on the right.

So, depending on your sex, your age, where you are in your life, this can change and you use your metabolic markers to figure out where somebody is, and this helps us clinically. So, why is it that we have all these different body types?

Well, the personal fat threshold helps to explain it, and simply stated, the personal fat threshold describes how much subcutaneous fat your body can hold before it says, "I'm full". And then the energy needs to go somewhere else, it starts to spill into visceral fat in the middle and then the organ fat on the right.

So, I'm going to give you three examples. So, if you look on the left at the subcutaneous fat, here's an individual that tends to accumulate just a little bit of subcutaneous fat before the system fills up.

We have a second individual; they can store a little more subcutaneous fat. And then we have a third individual that can store a lot of subcutaneous fat but at some point, it becomes dysfunctional. Uh-oh, where's the energy going to go?

It spills into visceral fat, and then that fills up, that becomes dysfunctional. We've got a big problem now - there's almost no place to go. Ah, we find a home in the organ fat and you get fatty liver. And then that fills up... boy, are we in trouble?

We've got inflammation everywhere, our blood vessels turn fire-hot, they get inflamed, the next thing you know, you have a heart attack and you're a dead person.

So, that's not a good scenario, but that describes the personal fat threshold and I think if we can predict the personal fat threshold moving into the future, that'll help us clinically.