PREVIEW_ Benjamin Bikman - Presentation (Breckenridge 2018) 2

Dr. Benjamin Bikman: What happens then when we add protein to the diet, to these ratios? We are a community that appreciates and respects insulin. To what degree do we need to worry about the insulinogenic effect of the amino acids as a part of the proteins that we ingest?

Well, let's look... in the fasted state if someone is doing this long-term-ish fast, hopefully they're being smart about it, hopefully they're avoiding refeeding syndrome. When they eat protein we see a change in the insulin to glucagon ratio going from 0.8 down to 0.5.

And so we see this relative increase in glucagon over whatever relative change is happening with insulin. That's not surprising, that's exactly what we saw with the dogs, do you remember? How the insulin didn't change, yet the glucagon changed substantially?

It lowered the insulin to glucagon ratio. So putting this person... at least maintaining them in this very catabolic state. Now with the standard American diet... are you ready? When this person eats protein we see that their ratio goes up to 70, so about a 20 time increase.

So this kind of gets to the heart. This gets to the heart of our collective appreciation of the insulinogenic effects of the proteins we eat. Because it's justified but we have to put it in the right context for those of us who are controlling carbohydrates and have a healthy respect for insulin... this is us here.

Now, what do you think it's going to happen? Are you ready? When a person eats protein on a low-carb diet it changes from this relatively low level and goes up to... 1.3. There is in fact no change and technically speaking there's a 6% change, which means that it stays at 1.3.