**PREVIEW 1_ Jeff Volek - Keto-Adaptation and Performance (SD 2016)**

Restricting carbs is more potent than any drug,

any type of exercise, any type of supplement,

in terms of promoting the shift over to burning fatty acids and ketone for fuel.

I use the word keto-adaptation or fat-adaptation

to describe the vast physiologic process of adapting to this

and it does involve a lot of different cellular systems.

But in general what we're understanding now,

is that switching over to fat,

keto-adapting is associated with robust improvements

in a variety of chronic diseases,

as well as promoting enhanced performance

and recovery and resiliency in athletes.

So that's the paradigm, and ketogenic diets again,

we don't have to spend a lot of time on this,

because, normally when I'm talking to dietitians, like I was last week,

you have to spend an hour describing what a ketogenic diet is

and how it's different than other approaches.

But, you know, the are a lot of misconceptions

that ketogenic diets are high-protein and so forth.

They are not - they are low in carbs, but they're also moderate in protein.

They are not too low, to induce negative nitrogen balance,

they are not high either.

They are sort of a Goldilocks state where protein needs to be.

And that's different than all these other types of diet,

including other low-carb diets like paleo

or Mediterranean diets that are restricted in carbs,

but not enough to induce ketosis.

So, as humans, we don't store a lot of carbs

and we store very little in our blood.

How much glucose do we have in our blood?

Again, you guys are way smarter than the average person.

So, if we had a way to extract all that glucose out, it's 1 or 2 teaspoons.

And if we look at just a normal meal the average person consumes,

you know, this is not unusual to have a bagel and a latte with low-fat latte at Starbucks.

You know, just for perspective,

you may have 10 times as much carbs in that meal as you do in your blood.

So, that puts a stress on the body.

How does the body deal with that, because we don't like to have high blood sugar, right?

So, again just a little metabolism here, won't go too far.