PREVIEW_ Amber O'Hearn - Presentation (Breckenridge 2018) 2

Amber O'Hearn: Why do we use ketosis even when we have plenty of protein, more than enough protein to supply our brains needs with glucose without compromising our lean mass?

Or to put it another way... other animals continue to burn through lean mass even though... all the way until they can fuel everything with glucose. So what makes that difference?

I think it has something to do with the brain, but of course I don't really know, I wasn't there, but I'll suggest some reasons why the brain might've been the key to that advantage.

We have really big brains, primates already have big brains compared to other mammals and ours tripled in size compared to that. And the brains take a lot of energy. At the same time that we tripled our brain size we also lost intestinal tissue.

Scientists think that that is because intestinal tissue is very expensive to maintain and so in order to allow the extra energy to free it up to make brain tissue, we gave up some of our colon tissue.

And then that in turn made us more dependent on animal sourced food, because now we couldn't ferment so much fiber into fat. So the brain takes a lot of energy. A human adult brain uses about 20% of all the energy that we're using, we're using in our brain.

A little bit of that needs to come from glucose or at least does come from glucose even when we're fasting, but the rest can be done with ketones. And it doesn't seem to be a limit to how much we'll take up in the brain.

Whatever's floating around, we'll take it up proportionately. Now if you think adults have big brains, how much bigger is your brain if you're actually a baby?