5 Ways CARNITINE Helps Boost Energy (Backed by Science) Transcript

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Introduction to Carnitine and Energy

This one I wanted to talk about five of the top ways that carnitine can help you with energy and fatigue. Hey, it's Dr. A. On this channel, we answer all things healthc care, medical, etc. So, the first thing is why would carnitine as an amino acid get involved in making energy? And obviously, if I have fatigue, I have low energy. Well, what happens is carnitine is inside of your cells and it helps in a place called the carnitine shuttle to take fats and put them into the mitochondria which make your energy. And when you burn fats in the mitochondria, you make more energy than when you burn carbohydrates. But burning fats is more energy dependent because you have to go through a thing called beta oxidation to chop them up into little twocarbon pieces. And without carnitine, we wouldn't force the fats into the mitochondria to make energy. So carnitine is very crucial to the formation of energy through getting energy substrate or the fuel to make energy, highdose fuel like fats into the mitochondria. So what are five things that carnitine can help you with in regard to energy? And this is about lesser known things with carnitine. But the one that it relates to energy in the lesserk known area is that carnitine actually is involved in blood sugar control. Carnitine's involved in a lot of hormonal processes we don't think of but blood sugar control. And the reason that having blood sugar control helps with energy is number one, if you don't have good blood sugar control, you can wind up with your blood sugar and your insulin going like a roller coaster all day. And when you hit the peaks and the values of that roller coaster of blood sugar and insulin, you can feel very tired and fatigued. So that's a big way it can help with energy is through supporting blood sugar control through the day. The next way, which is a lesser thought of thing, is in addition to helping with this energy production, carnitine also helps take the trash out of cells. So carnitine literally is involved in getting rid of toxic materials from the inside of the cell which is very very important as well.

Number three is the overall what we call the central nervous system control of energy. So all of your mitochondria in your physical body below the neck create the energy and that's largely what we feel as our body energy is all the energy going on in our muscles and our organs and stuff like that. But there's also the central control of the perception of energy. And the central control of energy in the brain also feeds into how we feel, how energetic and awake we feel. Because the brain runs on a lot of different fuels, fats being one of them. Carnitine is used in very high levels in the brain. And so it can help us with the central perception of energy in our body as well as that peripheral one. The next thing is if you switch your diet, especially if you are fasting, if you do a low carbohydrate diet or you go on a ketogenic diet, you can have a dip in energy that they call the keto flu, right? You feel yucky and tired and everything. One of the fastest ways out of that dip in energy or the keto flu is actually to give somebody some sort of carnitine to increase the burning of fat and the helping of the fat and the ketone balance that's going on. So what'll happen is if you suddenly change your diet or you suddenly go into a fast, your body will start to burn way more fats and it will run out of the energy transporters in the carnitine shuttle and so the fats will start to build up and you'll run out of literal energy. So you feel like you crash in fasting fatigue or the keto flu or low carb flu if you will. We will give people carnitine or acetil lcarnitine as a way to help them redistribute and burn the fats in the way that they're supposed to. So it's really helpful with the brain fog and fatigue on that end.

And then the fifth way it helps is its global way of helping to burn fat and that is in all of your tissues, all of your cells in your body. You have generally in almost every cell mitochondria. mitochondria are running all the time to create whatever your cell does the energy for it and the total of those trillions of cells in all of their production makes you feel energy. So its primary job of helping the carnitine shuttle take fats from the cytool the out outer part of the cell area into the mitochondria through the carnitine shuttle and burn to get more energy because you get much more energy from a fat than a carbohydrate. It's global energy production number five.

All right, I'm Dr. A. I hope that answers that question. If you haven't considered subscribing, please do. We uh have a really growing community here.

Our job on this channel is to explain things health and health care, answer questions, and talk about all things health, healthcare, chronic illness, sometimes cancer, etc., and mostly the questions you guys ask. So, I'll see you all on the next video. Take a look at these other videos here. I'll see you later.