Enhance Heart Health: Fasting & Autophagy Tips Transcript

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Introduction to fasting and heart health

Hey, guys. Dr. Jockers here. And today we're talking about eight ways intermittent fasting improves your heart health. And so we know that cardiovascular disease is really the number one killer in Westernized countries, right.

Right there with cancer. And when we look at really the root cause of heart disease, we know it's inflammation. In fact, inflammation is at the root of practically all known chronic health conditions.

So we think about dementia, Alzheimer's, Parkinson's. These are all diseases characterized by chronic inflammation, cardiovascular disease or heart disease, whether it's atherosclerosis, arteriosclerosis, blood pressure issues.

These things are all related to chronic inflammation that's affecting the arterial beds. And you can see in this chart just how much inflammation affects every system of our body.

So really the key to being healthy in the 21st century is controlling the inflammatory response. And so we know one thing that really drives inflammation is the hormone insulin and insulin's job is to come out when our blood sugar is high, it comes out to take the sugar out of the cell or I'm sorry, out of the bloodstream and bring it into the cells.

Inflammation, insulin, and cardiovascular disease

So it's like a key opening, a locked door on the cell to allow sugar glucose to move into the cell. And it's extremely important for that. The problem is when we have chronically elevated insulin, so we should only have insulin at a high level for short periods of time when we're consuming a meal, when we're consuming many meals, multiple meals throughout the day and we're consuming a lot of sugar and starch in our meals, we're going to end up with higher levels of insulin.

And insulin is a pro-inflammatory hormone, so it signals the upregulation of inflammatory gene pathways. Why does it do that? Well, if we look at the history of mankind, we know that chronic infections have killed more people in the history of mankind than anything else.

And inflammation is the body's way of adapting to infections and preventing infections from killing us. When we would eat food. Or really still when we eat food, we take in bacteria and other pathogens.

So eating food itself promotes an inflammatory process. And part of the way it does that is by increasing insulin. And when insulin increases, the body knows, okay, food is coming in.

That means pathogens are coming in. That means we need to be careful because we may have a very infectious pathogen that can kill us. So we'll upregulate inflammation and that's what ends up happening in our body, goes into a little bit more of a survival mode.

So we get higher amounts of insulin when we're consistently eating meals throughout the day, particularly meals that are higher in sugar and starch, and that is going to cause a downregulation.

Our Libre Detoxification Pathways Increase in blood pressure. So, you know, insulin alone, I should say it's not a bad thing. Okay. Just so everybody knows, it's the chronically elevated insulin.

That's a problem. That's because we're eating so often. Our ancestors would only eat once or twice a day, maybe. Right. And sometimes they would go days without eating.

And so they kept insulin under control and their body was very insulin sensitive. But when insulin is elevated, we

end up getting all these kind of changes, changes in our hormones.

We get a romanization for men where they have higher amounts of testosterone.

How fasting lowers insulin and supports healing

We get an organization with women where they have higher amounts of testosterone, a condition called PCOS polycystic ovarian syndrome associated with insulin resistance, more oxidative stress along the in the heart tissue and along the arterial beds, which can lay the groundwork for developing plaque and arteriosclerosis and high blood pressure.

So a lot of major issues there. Now, how fasting improves heart health. Fasting works directly on insulin. When we fast we lower insulin by lowering insulin, we're going to decrease inflammation, oxidative stress, we're going to enhance our sensitivity to insulin.

When we do eat food, we're also going to improve our mitochondrial health. And I'll talk more about that. Of course, when insulin goes down, insulin is a fat storage hormone.

So it tells our body to store fat when insulin drops, we start burning fat for fuel. So we start burning up that extra fat, which only improves our insulin sensitivity.

We also repair dysfunctional cells, a process called autophagy, which is extremely important for cardiovascular health. This improves blood pressure. We have high insulin. High insulin causes some changes, particularly in our kidneys and our blood vessels that will drive up blood pressure and also causes sodium retention, which means we're going to have more water because what follow sodium water?

And so when we have high insulin, it it tells us to hold on to it to sodium. And so we end up with higher blood pressure. And when we fast we actually need more sodium because we are insulin drops and we we excrete more sodium.

So we actually need more. And then fasting also helps to strengthen blood vessels. And that's because our body gets more resilient. So we get stronger, healthier cells with healthier mitochondria.

So they're less resistant, they're less they're less susceptible to stress and they're more resilient to a stress. And that's really what we're trying to accomplish here.

And so one of the key mechanisms for how the body heals can actually heal arterials, sclerosis and heal heart disease is through this process of autophagy.

When we fast we activate autophagy, which is driven by these lysosomes which go in and metabolize older damaged cellular components like damaged mitochondria, damaged Golgi apparatus and endoplasmic reticulum and all the different components of the cell.

We go in, we we get rid of those, we recycle the raw materials and we create new, healthier mitochondria, new, healthier cellular organelles. And through that process, we can actually build much healthier cells and reverse the aging process and reverse the disease process.

Autophagy, blood pressure, and vessel repair

In fact, this interesting study here came out of the Journal of American Heart Association and says February 2019, so very recent. And it actually talks about how intermittent fasting reverses an advanced form of cardiomyopathy.

And this is a rat's study. What they actually showed was this autophagy Lysosome Machinery and how basically intermittent fasting, upregulated this autophagy like lysosome machinery, this ability to break down older cells and older cellular organelles.

And it stimulated what's called the autophagy like flux to pre-condition the heart and that reduced ischemia reperfusion, which is basically like a low oxygen level injury and cell death.

So a lot of these cells were dying due to poor oxygenation and the autophagy process was able to reverse that. So really powerful stuff right there showed it in rats.

You know, there's some translation there that that could be happening with them with humans as well. And I believe so. I believe that, you know, they do the human studies will see a lot of changes.

We've already seen some studies showing improvements in blood pressure in LDL, HDL and triglyceride levels. So when you fast your triglycerides go down, your HDL goes up, your LDL goes down typically or stays the same.

And so you get the optimal ratio there with your triglyceride, HDL and LDL. And I go over that in the article that associates this with this video that you can see in the links below.

And then fasting also helps improve ketone production and it stimulates what we call mitophagy and mitochondrial biogenesis, where we produce newer, healthier mitochondria in the mitochondria, produce the cell, they produce all the cellular energy within every cell.

So the more healthy mitochondria we have in a cell, the more energetic the cell is, the more stress resilience it is, more it's able to handle stress, respond and adapt to it.

So we get more of these mitochondria when we're doing intermittent fasting. Intermittent fasting also helps to reduce oxidative stress and plaque formation in our arteries.

It improves the vascular tone.

Research on fasting and heart function

So the ability, the elasticity of the collagen tissue on the inner lining of the blood vessel becomes better, becomes stronger, it becomes more flexible, more elastic.

So very important there. And that's going to help with blood pressure, helping stabilize blood pressure. And, of course, reducing atheroma and arteriosclerosis where we have arterial hardening of the arteries.

A0 is when we have plaque buildup, right on the arteries. And both of those are obviously big time problems and intermittent fasting really helps with that. Now, how do we practice this?

I always tell people start small, you know, if you've never fasted before, master a simple fast 12 hours overnight, then move it into a brunch, fast drink water in the morning.

Then you can proceed to a crescendo fast, which is 16 hour fast, two days per week. So this could be like from finishing dinner at 8 p.m. and not eating again until 12 p.m.

the following day. Okay. And you do that twice a week. Nonconsecutive days for the crescendo fast. Then you move into the cycle fast where you're doing that 6 hours, three times a week.

Then you can extend it up to what we call a strong, fast, right where we're doing more of a 16 to 18 hour window and you're eating your meals in like a six hour eating window, like this example, 10 a.m.

Practical fasting schedules and recommendations

, the person's fasting, they're waiting until 1:00 here and then they're eating their food and you're eating between 12 p.m. and 6 p.m. would be an example of the strong fast.

So whether you're only eating in an eight hour window each day or a six hour eating window each day, that's a strong, fast doing that on basically just about every day.

And then you can move it into what we call oh matter one meal a day or you're just having one large meal and one hour timeframe every single day. And you know, obviously we want to make sure we're eating nutrient dense foods during that period of time, but that can have a profound effect on reducing overall inflammation.

And, you know, if I had heart disease, this would definitely be a practice that I would do, would be tightening up that eating window, going into one to maybe two meals a day, depending on my weight, if I needed to lose weight, I would only do one meal a day and I would just have a really good healthy meal in a one hour timeframe and eat till I was satiated.

And that's all I would do. But I didn't need to lose weight. I would probably try doing kind of like what I do now where I do two meals a day in a six hour eating window.

So I usually eat my meals between 1 p.m. and 7 p.m., and I do that five days a week and then two days a week. I do a just one meal a day. Okay. So I do a what's what's called a five to fast five days of eating.

So two meals, two fasting days where only one meal. And that seems to work really well for me. For some people, though, just doing 124 hour fast per week can be really powerful.

And then for others, especially if you really need to lose weight, doing alternate day fasting where you you go, you alternate between eating one meal and eating two meals, right?

So maybe one day, Wednesday, Friday, you're meaning one meal, Tuesday, Thursday, Saturday, Sunday, you're eating two meals, for example. That could be some sort of an example of alternate day fasting.

So all those strategies will really work, really help your body to help heal your cardiovascular system, help prevent hardening of the arteries, help help improve your blood pressure, help improve your cholesterol, triglyceride levels, your insulin, fasting, blood sugar, and really just get a powerful anti-aging effect.

So start practicing that. I know you'll see great results. Would love to hear your questions, your comments below. So please do that. And if you haven't subscribed to our channel, please do and hit the bell button nixes.

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So you don't want to miss these, so be sure to hit that bell button again. Hopefully you guys got a lot out of this training and everybody be blessed.