

BEH PODCAST – EPISODE 11

CAN CAFFEINE DECREASE BLOOD FLOW TO THE EYE?

Participant: My question is about caffeine. I read somewhere that caffeine can cause a restriction of blood flow to the optic nerve and I was wondering what your view was on drinking coffee, is it counterproductive?

Dr. Miller: That's a good question. Coffee can reduce blood flow, but it can also open blood flow up. Blood flow in the brain and the eye is a very complex thing, because it's controlled by two different systems that balance each other. The autonomic nervous system has the sympathetic and the para-sympathetic. Those are the medical terms for the systems. The sympathetic is part of the autonomic nervous system that would be fight or flight, really pump you up, but it also can slow down blood flow to the brain, but it depends on what the nature of the stress is. Sometimes sympathetic overload, and that's kind of the state that caffeine mimics, it produces an increase in sympathetic tone, which can also open up blood flow.

The effect of coffee is complex and caffeine is complex because it does not just an effect on the nervous system, it has an effect on the liver. There's a certain workload that the liver has to do to process the caffeine, and interestingly, in oriental medicine there's a connection between the organ that we call the liver and the system that's referred to as the liver system, which is much broader than just that organ in Chinese medicine. There's a connection between the liver system and the visual system in oriental medicine. The thing that stresses the liver is going to be a little bit negative on the eyes.

Caffeine is one of those things that as long as you do it in moderation, meaning you have some coffee in the morning and you're not drinking coffee all day long, or late at night, you will probably tolerate it pretty well. One of the things that's interesting just about caffeine and coffee is it's been a very highly studied drug. It's essentially a drug, legal, but a drug. Consider the billions of cups of coffee that people consume probably every day. People have been very worried about the negative health effects that caffeine and coffee might have. However, every attempt to try to link consumption of coffee and consumption of caffeine with some disease, cancer, degenerative disease or circulatory disease has never found a connection. Part of the reason for that is that coffee, if it's prepared from the whole bean, is a plant substance. It's a whole substance and there are good things which outweigh the bad.

The reason I say that coffee has a lot of benefits from being a plant substance is that in the few studies that they've done where they showed any negative impact at all from coffee or caffeine, used decaffeinated coffee. Part of the reason for that is that whatever process you use to decaffeinated the coffee, whether it's a water process or something a little more toxic, whatever you do that removes the caffeine, also removes a lot of the antioxidants and the other things that are good. So you suddenly don't have a whole material anymore, and it potentially could lead to some problems. So my

recommendation is that if you are going to drink coffee at all, just drink coffee and don't drink too much of it.

You hear about how there are antioxidants in things like green tea. Well, the amount of antioxidants in coffee far outweighs what's in green tea. So coffee isn't all evil, but you can definitely overdo anything, even something potentially good, but I would not worry too much. I have had, and I don't mean this as a fallback position, but I've had quite a few people that I've seen in this program who've done very well who drink coffee. So I do not find evidence that coffee is the undoing of this program. So I hope that answers that question for you.

Carlyle: I would say too, Damon, that it's also what you put in the coffee. So if you're doing a lot of milk and sugar and things like that, that might not be great either.

Dr. Miller: Yes, if your body doesn't like milk and you're loading up your coffee with half and half or whole milk, or you're using some kind of bizarre, who knows what it is, artificial creamer just to make it white, there's all kinds of chemicals and things in there that may not be good for you. You can easily dump 20 grams of sugar into a cup of coffee and that's over half the amount of sugar you should eat for the whole day. So thank you, that's very true.