## **BEH PODCAST – EPISODE 8**

## **BEH BASIC PROTOCOL – TAURINE**

Dr. Miller: Today we are going to talk about Taurine, one of the seven items in our basic protocol for the treatment of eye disease. (And let me just say that today is the 13<sup>th</sup> of April, 2016 and I believe the reference number for this call is 5). There are numerous classes of supplements in the protocol. There are the anti-oxidants, which are intended to reduce damage in the retina. Vitamins and the minerals are the main source of anti-oxidants. We're doing a program intended to regenerate tissues in the eyes by enlisting the systems in the body. The natural systems that help us regenerate complex tissues like the spinal cord, brain and eye. That critical system are stem cells, which all of us carry around with us.

If you're trying to rebuild complex tissues, you need to make sure you have all the raw materials present. For the most part, you obtain those materials from the things we eat. There are a few specialized materials which you wouldn't necessarily get from everyday foods. We include those in the protocol because we want to make sure you have enough of everything your body needs. Taurine is one of those materials; the other two similar ones are Lutein and DHA.

Today, we're focusing on Taurine. Taurine is an amino acid. It's a sulfurcontaining amino acid. It's known as a conditionally essential amino acid. In nutrition, essential means anything where you have to eat it because you can't make it. A couple examples are essential fatty acids and essential amino acids. Essential nutrients must be in your diet. Your body has a limited ability to fabricate Taurine and other amino acids, but it doesn't do it very efficiently. That's why it's conditionally essential. We want to make sure you have plenty of Taurine around, so we have you take one pill a day. And it's actually a vegetarian source, the one from thorn.

We suggest you take your Taurine pills at night because amino acids absorption

1

into the blood stream, is competitive. That means if you just had a big piece of meat, and you take a Taurine pill, there are only a few revolving doors, a few places where the amino acids can get from the gut into the blood stream. If there's a lot of competition for those few doors, you may not absorb all of the Taurine in the pill you take. By taking it at bed time, you do a couple of things. First, it is separate from other foods you've eaten major meals. Second, it puts Taurine into your blood supply at night, when the majority of healing happens in the body.

The only other place in the body where there's as high a concentration of Taurine as you find in the eyes, is the heart. As a result, Taurine is also useful for the heart. The data on Taurine is interesting. Some of the data is indirect, meaning what happens when you don't have enough Taurine. There's been data in human beings about Taurine deficiency. Taurine deficient diets are mostly found in people who don't eat meat. Vegetarians or vegans can sometimes get into troubles with their eyes and heart, because they aren't getting enough of the sulfur-containing amino acids that would build Taurine or actually contain Taurine themselves.

One piece of evidence about the importance of Taurine was kind of an accident. People who are vegan or vegetarian sometimes want to have vegan or vegetarian food for their pets. They just didn't want meat in the house at all. There were some attempts to make vegetarian cat foods without meat. There is not enough Taurine for the cats in the vegetarian foods and a whole lot of cats ended up blind. The cast literally became blind because of the lack of Taurine. There is plenty of other evidence that shows a clear relationship between Taurine and eye health.

Taurine could be taken at other times as long as it is not near a big meal with a lot of protein. It does not have to be at bed time, but bedtime has the added benefit of having it circulating in your body at the time when your body is repairing cells.

That's really about the end of the story on Taurine. If people have questions about it, we can come back to it at the end. Foods that are rich in Taurine contain a lot

2

of sulfur-containing amino acids. Eggs are a great source of Taurine, and meat has a lot of Taurine in it. There are food sources for Taurine. But just to be safe, we have found that adding this single pill to the supplement protocol was valuable.