PREVIEW_ Dr. Georgia Ede - Presentation (San Diego 2017) 1

Dr. Georgia Ede: But what about in the brain? So insulin resistance in the brain is very different than it is in the body. Brain is special. So remember that the higher the blood sugar, the higher the brain sugar, so let's say your blood sugar is going too high too often.

Then your brain sugar will also be going too high too often. But remember that your insulin will plateau at a certain point, so you'll have plenty of glucose flowing into the brain, but you might not have enough insulin.

And over time if you're developing insulin resistance of the body that includes the blood brain barrier and the insulin receptors not only do they have a saturation point as we talked about before, but they also can become insulin resistant themselves, become damaged and desensitized and down regulate.

And that will limit how much insulin can go into the brain. And that's a problem because your cells, and particularly we're going to focus on the cells of the hippocampus, the memory center of the brain, those cells require insulin in order to process glucose.

Cells can't process glucose without insulin. So then what you've got is a situation where despite swimming in a sea of glucose, your brain cells can literally starve to death.