

## Risky Behavior and Brain Injury

**Source:** Produced by Victoria Tilney McDonough and Brian King

**Video Link:** <http://www.brainline.org/content/multimedia.php?id=3205>

**Dr. Deborah Little:** One of the questions that always confounds with age is this topic of "can the brain recover, can the brain repair itself, can the brain adapt to damage?" The answer is yes. We have hundreds of papers that have been pre-reviewed that have been published that show new connections can be made, doesn't necessarily remediate the entire damage that's there, probably not, what we're probably doing is finding new ways to do the tasks that we were doing them before.

But the more we know, the better it is so the field of neural stem cells becomes a big topic. So, the brain, up until the point where we die, the brain continues to develop and generate neural stem cells. This is not us giving people stem cells, this is purely what we do inherently. Neural stem cells proliferate into certain areas and there are certain conditions we can use to increase the amount of them and so this is one of the big topics of research that's being done is "how do you increase or encourage plasticity?"

It's something that we think of with our rehabilitation, that's what we think rehab is doing is increasing the communication between areas of the brain to increase kind of that inherent neural plasticity.