The Case for Neurogenesis and Our Diet

By Darsi Beauchamp, Ph.D.

What exactly is neurogenesis and how does it affect people? Neurogenesis is the process by which stem cells and progenitor cells generate neurons. Our brain health depends on many factors. Firstly, addictions to heavy alcohol consumption hurts our brain as well as other drugs. In 1999, a Yale study of the brain demonstrated that adult brains are still capable, despite aging, to generate new connections and new brain cells by simply restimulation of the brain.

No longer do we have a clean slate from birth and no longer do we have our brain atrophy if we can prevent it.

How do we prevent a brain from going into atrophy? Our neurons can change in such a way that we gain plasticity. Neurogenesis is the formation of new brain cells in adults. A recent study published in the Journal of Physiology (2016) demonstrates that aerobic exercise that is sustained will trigger neurogenesis.

A study at the University of Texas also found that challenging mental activities and learning stimulates memory and high-level thinking. The 2009 Strangl and Thuret study also demonstrated that diet impacts our neurogenesis. This study focused on the calories we consume, how often we eat, the types of food we eat and their texture (smooth textures are not the best) and the contents of the food we eat. So when we fast a few times a year and we complain about it, or think that it hinders our system, the total opposite is true! Fasting increases the production of new neurons! Development of new neurons reduces the risk of strokes, Alzheimer's disease, Parkinson's disease and speech impairments. I am not saying do not eat; just watch what you eat and reduce the caloric intake to 50 to 70 percent of the normal diet. The fasting is done intermittently or by simply eating at longer intervals. The types of food we eat are also very important. A low saturated-fat diet will help increase the new cells, while a high saturated-fat diet reduces the amount of new cells in the hippocampus—the area of memory, learning, emotion (mood), planning and spatial abilities. The best type of fat shown to help our brains is in the foods of salmon, tuna, walnuts and/or flax seeds, and other foods include cocoa, red wine (one glass) because of the resveratrol and, of course, turmeric. Yes, you heard correctly—the famous omega-3 fatty acids you have been hearing about for a decade. You want to remember better? Then you must eat better and exercise, nothing new by these news, except now we know that the four regions of the brain affected are the cerebral cortex, the hippocampus, amygdala and cerebellum. What does this mean for our brain? That we must eat more than balanced, that we must also reduce stress by exercising and sleep well—or our brain health and mental health will suffer, never mind our emotions.

Dr. Beauchamp is a psychotherapist with a master's in family therapy and is a LAC who uses CBT/DBT, biofeedback, neurofeedback, hypnotherapy for children and adults in her practice. She works at the (in Iselin and Morristown) neuro-psychology practice with Psychologist Dr. Barbara Couvadelli, who performs neuro-psych testing. Neuro-psychology is a comprehensive and preventive center. For more information, you can contact Dr. Beauchamp at 973-400-9794. Insurance is accepted.

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The HEALTH LINK

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