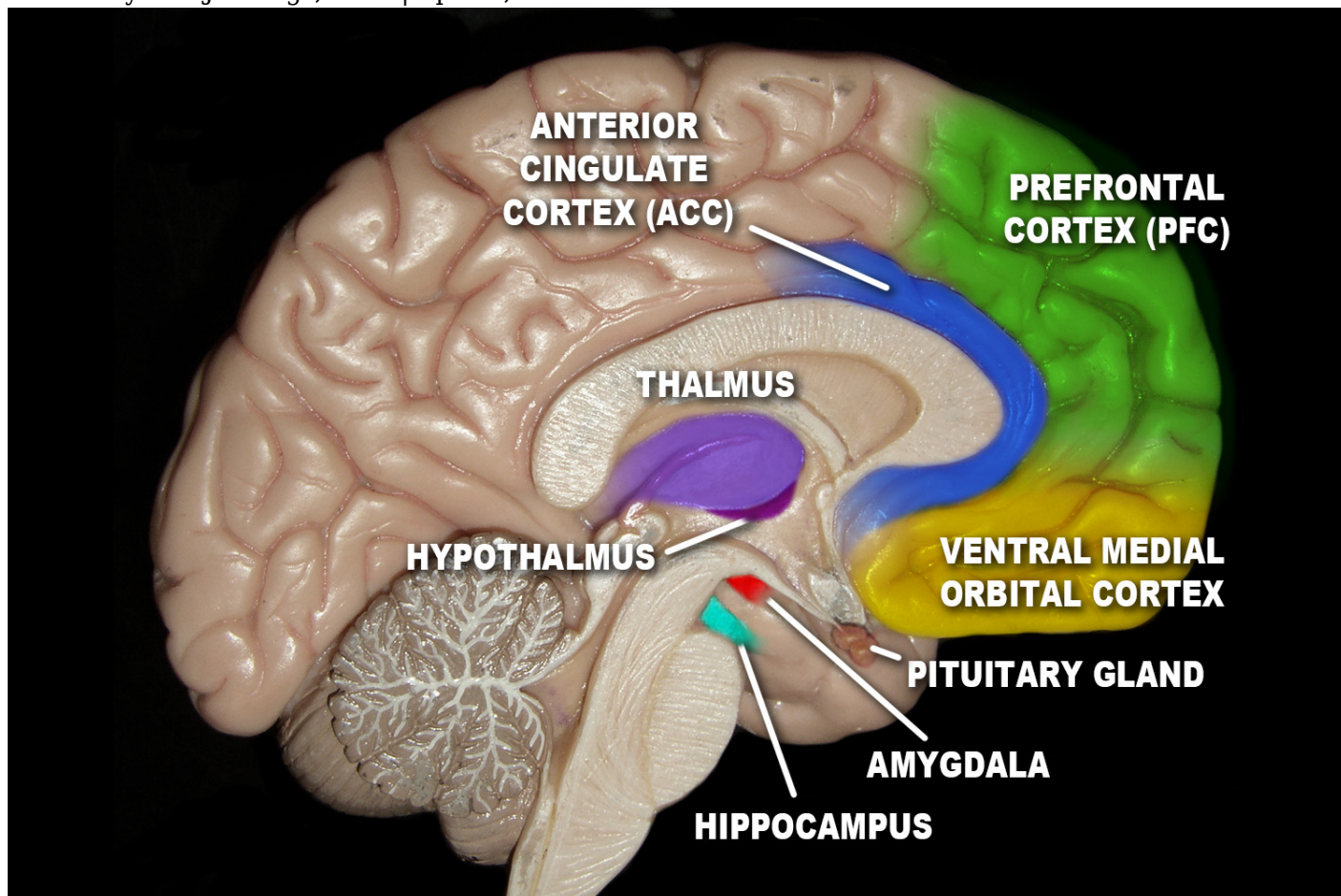


10 Simple Steps to a Healthy Brain

written by Tim Jennings, M.D. | April 2, 2012



1. Regular Sleep

Approximately one in three Americans is chronically sleep deprived, sleeping less than seven hours per night. Sleep is one of four physical requirements for life, along with air, water, and food. Yet far too many people fail to provide their brain and body with adequate sleep.

Chronic sleep deprivation is devastating to brain health. Without regular adequate sleep brain function is impaired, particularly the part of the brain in which we attend, focus, organize, plan, self-restrain, calm self and modulate mood.

Chronic sleep deprivation results in higher activation of the brain stress circuits, with subsequent increase in inflammation and oxidative stress - cellular damage to body and brain. This increases the risk for illness of brain and body such as, diabetes, obesity, depression and dementia.

A healthy brain requires regular sleep.

2. Regular Exercise (Both Physical & Mental)

According to the Centers for Disease Control, more than one third of US adults (35.7%) are obese.

Obesity is a high inflammatory state that reduces quality and length of life and results in accelerated aging and loss of brain tissue. A combination of a high sugar, high saturated fat diet and lack of regular exercise are primary contributing factors to obesity.

Regular exercise not only results in better physical health, and generally better weight profile, but also causes a cascade of beneficial events for the brain. Regular exercise causes the muscles to produce powerful anti-inflammatory cytokines that reduce inflammation. Exercise increases blood vessel growth in the brain improving oxygenation. Additionally, regular exercise causes the brain to produce proteins that stimulate the brain to make new neurons and increase the growth neuron-to-neuron connections. People who exercise regularly are at lower risk for dementia. Finally, exercising the brain itself by engaging in mentally stimulating activities, puzzles, Bible study, learning a new language etc. activates growth factors that promote brain health. If you don't use it, you will lose it – so exercise regularly!

3. Hydration

Water is the single largest component of your body comprising well more than half of your body weight. Every cell of the body requires water. Water is essential for the functioning of our cells and the removal of waste products of metabolism.

Dehydration shrinks the cells of the body and their function becomes impaired. This results in increased oxidative stress and inability to clear toxins, which results in greater damage to our cells, including our brain. Concentration, memory and general alertness can be negatively affected by dehydration.

An average adult should drink eight 8-ounce glasses of water each day, and more if exercising vigorously, or working in hot humid environments in which sweating profusely.

4. Healthy Diet

You have probably heard the old adage we are what we eat. Well there is much truth in this saying. What we eat provides the nutrients and building blocks from which the tissues of our bodies are made.

Diets high in sugar and saturated fats increase inflammation and oxidative stress accelerating the aging process and decline in brain function. Conversely, diets high in fruits, nuts, grains, vegetables, cold-water fish, olive oil, provide antioxidants, which reduce inflammation and slow the aging process.

In general, the more highly processed the food the less healthy and more damaging to body and brain. The less processed the food the healthier for body and brain.

5. Avoid Toxins

It doesn't take much brain power to figure out that tobacco, heavy alcohol use, and illegal drugs are damaging to body and brain and accelerate the aging process. But one toxin often missed is high caffeine use. While one or two caffeinated beverages may not confer great risk, higher amounts do increase inflammation, interfere with sleep, reduce blood flow to the brain and increase oxidative stress on the brain.

Other potential toxins, for which we have concern, but not solid evidence, include the myriad of man-made chemicals infused into our society. Read the labels on many household items and you will discover a long list of man-made chemicals, to which we are daily exposed. Only time and research will tell the

full impact on physical and mental health these substances are having.

6. Forgive

Grudge holding, bitterness, resentment are toxic emotions that activate the brain's stress pathways causing activation of inflammatory factors. Failure to resolve such feelings results in increased oxidative stress and damage to physical, mental and relational health. Forgiving those who have offended us does not mean what they did was okay, but relieves us of carrying the toxic emotions of anger and resentment everywhere we go and over time ruining our own health.

7. Develop Healthy Relationships

Relationship conflict activates the brain's stress circuits, which turns on the immune system causing increase levels of inflammatory factors. Chronic relationship conflict also interferes with regular sleep. The combined effect of increased inflammation and sleep deprivation accelerate aging and undermine brain health. People with chronic relationship problems have higher rates of mental and physical health problems.

Conversely, healthy relationships are protective and reduce the incidence of both physical and mental health problems. Adolescents who grow up in homes in which they have one adult who is a close confidant perform better in school, get more awards, have less depression and lower rates of drug problems.

8. Be a Giver

Multiple studies have demonstrated that persons who are involved in any form of regular volunteerism have better physical health, lower blood pressure, are on less medicines, maintain independence longer in life and have lower rates of dementia.

Loving other people is healthy for the brain.

9. Minimize Theatrical Entertainment

Brain research has demonstrated that theatrical entertainment (but not education programming) alters the brain structure, resulting in decreased development of the prefrontal cortex (higher brain where we plan, organize, self-restrain, attend, have good judgment), and over development of the limbic system (lower brain where we experience fear and irritability). This occurs in a dose dependent fashion, meaning the more TV watched the more damaged done. This imbalance increases the risk for attention problems as well as anxiety and mood problems.

Minimizing theatrical entertainment is protective for the brain.

10. Build relationship with God of Love

Individuals with a healthy spirituality, focusing on a God of love, have reduced anxiety, stress and overall more meaningful and satisfied life. Research shows healthy spirituality reduces rates of suicide, increases life satisfaction scores, and general results in healthier relationships and lifestyle.

Conversely, God constructs that incite fear are associated with increased anxiety, dread, worry, relationship conflict and a general sense of life dissatisfaction, all of which increase inflammation and

are unhealthy for the brain.