

*****#2, Industry and Artistry (??), Amy Brier & Ivy Tech Students <http://www.amybrier.com>

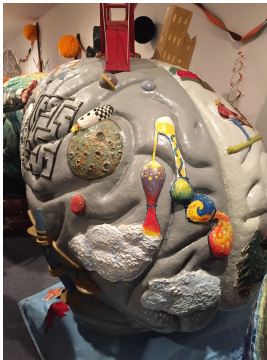
Health. What we eat, how much we sleep we get, and the thoughts we think can all profoundly influence our overall mental health.

Illness. The brain is just like any other organ in that it too can become ill. Brain illnesses include manic depression (bipolar disorder), schizophrenia, and anxiety disorder. Treatment helps.

Treatment. A combination of medication and talk therapy for psychiatric illnesses influence the chemistry in our brain by increasing or decreasing specific neuronal activity.

Neurons. Neurons communicate with one another using chemical neurotransmitters. Different brain disorders reflect different groups of neurons with faulty communication.

Addictions. Smoking, drugs, and alcohol profoundly disturb the healthy internal environment of the brain, making it really difficult for neurons to do their jobs.



How do you learn best?

- A. Reading material to myself
- B. Hearing someone explain it
- C. Imagining myself doing it
- D. Watching someone else do it
- E. Teaching someone else to do it
- F. Repeating an activity over and over

#4, Brain Foods, Bonnie Gordon-Lucas <http://www.mybonnie.com>

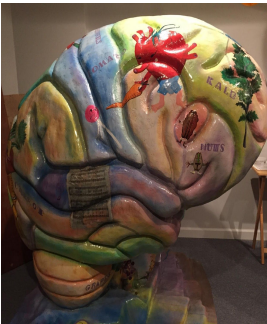
Food. Different foods stimulate us in different ways. Milk and turkey contain tryptophan, which turns into serotonin and we relax.

Antioxidants are like garbage collectors. They help clean out the brain so neurons and glial cells can function better.

Fish. Coldwater fish – especially salmon and tuna – contain omega 3-fatty acids that protect brain cells and reduce the risk of heart disease and stroke.

Balance. A healthy brain needs the right balance of nutrients along with physical activity, mental challenge and social interaction.

Fat. Diets extremely low in fat can make you feel foggy in the brain because neurons need good fat to conduct their messages.



What is your favorite “brain superfood?”

- A. Nuts
- B. Berries
- C. Salmon or tuna
- D. Oatmeal
- E. Avocados
- F. Dark chocolate

#5, Music Around the World, Merridee LaMantia & Jill Bolte Taylor <http://drjilltaylor.com>



Playing music is a great way to challenge our minds and integrate information between our left and right hemispheres.

Listening. Our left brains' critical judgment circuitry determines whether or not we like a piece of music.

Physical. Most world cultures move their bodies when they perform or sing music.

Cognitive. People who have trauma to their left hemisphere language centers may not be able to speak but they can often sing.

Performance Anxiety. There are techniques we can learn to train ourselves to minimize stage fright.

What do you like to do most?

- A. Compose music
- B. Practice music alone
- C. Perform music for others
- D. Dance to music
- E. Teach music
- F. Listen to music

#7, CT Scans, Yara Clüver & Althea Crome <http://www.bugknits.com>

BMI. Neuroscientists have developed Brain-Machine Interface (BMI) technology to help those with serious physical disabilities use their thoughts to send email and turn on TVs via electrodes implanted in their brains.

Implants. Neuroprosthetics are artificial devices implanted in the brain to repair damaged structures. The two most well-known devices are cochlear (hearing) and retinal (vision) implants.

Electronic Tattoo. Scientists are working on an electronic tattoo to monitor the heart, brain, and other bodily systems. This technology may be able to prevent epileptic seizures or warn of heart problems.

Stroke Repair. The sooner a stroke survivor gets to a hospital for help, the better the long-term outcomes for that person generally are.

Neurogenesis. The brain can create some new neurons (undergo neurogenesis), resulting in the ability of the brain to create new neural networks necessary for recovery from trauma.



*****What is most true about you?

- A. I wake up happy in the morning.
- B. I feel uncomfortable around happy people.
- C. I am sensitive to the feelings of others.
- D. I would rather be happy than right.
- E. I would rather be right than happy.
- F. I experience joy when others succeed.

#12, Nature Neuro, Robin Ripley

Branches. Neurons receive information from other neurons through their dendrites or cell bodies. Neurons carry information to their target tissue via their single axon.

Blood-Brain Barrier (BBB). Not everything circulating in the blood gets into the brain, due to the BBB.

Fluid. Blood is toxic to neurons. The \"blood\" of the nervous system is the clear, colorless cerebrospinal fluid (CSF). CSF helps cushion the brain and protect against injury.

Proton Radiation Therapy delivers a very precise, pinpoint beam of radiation that can target various types of brain and other tumors while sparing healthy tissue.

Cerebrum. Our brain is divided into the right and left cerebral hemispheres, which are connected by over 300 million axonal fibers, making up the corpus callosum.



Which is most true about you?

- A. I like to be organized and set goals.
- B. I tend to do things at the last minute.
- C. I'm an early starter on long-term projects.
- D. I thrive when I am being creative.
- E. I work best in small groups.
- F. I work best when I work alone.

#15, Evolution of Learning, Jon & Patricia Hecker <http://www.tattoodreams.biz>

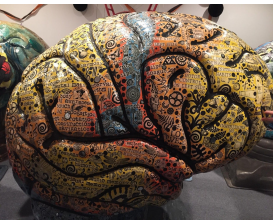
Heart vs. Brain. Ancient Egyptians considered the heart to be the source of intelligence, not the brain. They removed the brain during the process of mummification.

Brain vs. Heart. The 4th century B.C. philosopher, Aristotle, described the brain as being a \"cooling agent\" for the heart and a space where the spirit circulated.

Thinking Brain. In the 2nd century A.D., the physician Galen determined that mental activity took place in the brain.

Anatomy. Sixteenth-century Renaissance artist Leonardo da Vinci conducted many dissections of the brain and body looking for the seat of the \"soul.\"

Evolution is any change across successive generations in the heritable characteristics of biological populations.



I like learning about:

- A. Invertebrates
- B. Vertebrates in general
- C. Genetics
- D. Basic biology
- E. Human anatomy
- F. Neurosciences

#16, Communication, Joe LaMantia <http://lamantiastudio.com/home.html>



Reading Aloud. Reading aloud and talking to a child promotes brain development.

Language and the Brain. Neurolinguistics is the study of how humans understand and produce language.

Second Language. Children between the ages of 6 and 13 have the greatest potential to learn a second language.

Primitive Nervous Systems. Jellyfish do not have a brain but rather a \"nerve net\" made up of interconnected neurons that move together in a wave formation.

Whales and Humans. The blue whale has the largest brain of all animals. It weighs a little over 13 pounds. The human brain weighs a little under 3 pounds.

I like to work with other people who are:

- A. Knowledgeable
- B. Friendly
- C. Practical
- D. Goal oriented
- E. Visionary
- F. Spontaneous

*****#17, Sports Safety, Joe LaMantia <http://lamantiastudio.com/home.html>



Speech. Broca's area is a group of neurons in the inferior frontal gyrus of the brain, and it is involved with speech production.

Hearing Brain. Sound comes into our ears and then is transduced into a neural code that travels along cranial nerve VIII (vestibulocochlear) to our auditory cortex.

Aphasia. Damage to the language centers in our left hemisphere may result in a problem with creating or understanding speech (aphasia).

Movement. Kinesiology is the study of human movement, which involves the sciences of biomechanics, anatomy, physiology, psychology, and neuroscience.

Motor Imagery. When we imagine performing an activity, our neurons do not know that they did not really perform that action. This is why using imagery to learn is effective.

My favorite form of exercise is:

- A. Cycling
- B. Yoga
- C. Running or hiking
- D. Working out at the gym
- E. Team sports
- F. Water sports

#20, Bipolar Brain, Martina Celerin <http://www.martinacelerin.com>



Bipolar Disorder. Over 10 million Americans have bipolar disorder, and more than half of all cases begin between the ages of 15 and 25. Bipolar disorder (manic depression) is often treated with lithium.

Delusions. People with schizophrenia (or during the manic phase of bipolar) experience delusions, whereby they have a belief system that is not shared by the normal population.

Ups and Downs. People who have bipolar disorder experience intense \"ups and downs\" far beyond those seen in people who are not affected by this disorder.

Depression. Depression is a treatable illness in which an individual always feels sad, lacks energy, has trouble concentrating, and has little interest in doing anything.

Hallucinations. People with schizophrenia (or during the manic phase of bipolar disorder) may hear, see, or smell things that the rest of us do not experience.

I am close to someone who has been diagnosed with:

- A. Schizophrenia
- B. Chronic depression
- C. Manic depression
- D. Anxiety
- E. Obsessive compulsion
- F. None of the above

*****#21, Thinking Outside the Box, Peter N. Gray <http://www.metal-i-genics.com>



Genetics. Your body is genetically programmed to be healthy. When overwhelmed by stress, toxins, and poor diet, the human body begins to fail.

Brain/Body. Structure governs function. The brain controls all functions of the body and is highly dependent on its surrounding structure: the spine and skull.

Blood. The brain needs blood. Any interference of blood supply adversely affects the brain and nerves. Exercise and proper diet can restore blood to the brain.

Chiropractic: The science and art of chiropractic medicine is centered on releasing interferences of the brain and nervous system, particularly in the cranium and spinal column.

Speed. The brain and nervous system function like the Internet. Is your brain on high speed or dial-up speed?

Where do you hold the most tension in your body?

- A. Head and neck
- B. Jaw
- C. Shoulders
- D. Lower back
- E. Hips
- F. I'm Zen and don't hold tension.