## 365 Brainy Fact-A-Day Calendar

## Collated by Eric H. Chudler Neuroscience for Kids

For references and sources of these brainy facts, please visit:

http://faculty.washington.edu/chudler/neurok.html

Instructions:

- 1) Print out each page.
- 2) Cut out each square.
- 3) Stack squares by date.

| January 1  | January 2  |
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| The cortex gets its name from the Latin word for "bark" (of a tree).   | There are approximately 86 billion neurons in the human brain. |
| January 3  | January 4  |
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| The average human brain weighs about 3   | Unlike humans, the octopus does not have                       |
| pounds (1.4 kilograms).  | a blind spot.  |
| January 5  | January 6  |
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|  | <br>The skin of an adult human covers about                    |
| The average length of the adult spinal cord  | 18-20 square feet (~2 square meters) and                       |
| is 45 cm for men and 43 cm for women.  | weighs about 6 lb (2.7 kg).                                    |
| January 7  | January 8  |
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| The energy is the extremely set the first set of the se |  |
| The sponge is the only multicellular animal without a nervous system.  | The word "hypnosis" comes from the Greek word meaning "sleep." |
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| January 9   | January 10   |
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|   | The pufferfish, eaten as a delicacy in                               |
| A butterfly can taste with its feet.  | Japan, contains a potent neurotoxin called tetrodotoxin.             |
| January 11  | January 12   |
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| The heaviest human brain ever recorded weighed 5 lb., 1.1 oz (2.3 kg).                    | Stroke ("brain attack") is the 3rd leading cause of death in the US. |
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| January 13  | January 14   |
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| The Greek philosopher Aristotle believed  | <br>Information travels in the nerves at speeds                      |
| that the heart, not the brain, was the seat of  | up to 268 miles per hour (429  |
| mental processes.   | kilometers/hour).  |
| January 15  | January 16   |
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| The smallest bone in the human body is the "stapes." This bone, found in the ear, is only |  |
| 0.25 to 0.33 cm long (0.10 to 0.13 inches)  | 400 to 500 ml of cerebrospinal fluid is                              |
| and weighs only 1.9 to 4.3 milligrams.  | produced each day.   |

| January 17  | January 18   |
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| Some of the oldest cells in the human body are neuronsthey last a lifetime.       | <br>If people sleep 8 hours each day, they<br>sleep the equivalent of 122 days per year. |
| January 19  | January 20   |
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| Most people dream about 5 times during  |  |
| each 8-hour period of sleep. Based on this number, people have about 1,825 dreams |  |
| every year.   | An average yawn lasts about 6 seconds.   |
| January 21  | January 22   |
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| The distance separating two neurons at a  | People typically blink about 15 times per  |
| synapse is 20-40 nanometers. (1   | minute. If you are awake for 16 hours each   |
| nanometer is equal to one-billionth of a  | day, then you blink approximately 14,400   |
| meter.)   | each day.  |
| January 23  | January 24   |
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| Bicycle helmets reduce the risk for head  | Percentage of total cerebral cortex volume (human): frontal lobe = 41%; temporal lobe    |
| injury by as much as 85% and reduce the   | = 22%; parietal lobe = 19%; occipital lobe =   |
| risk for brain injury by as much as 88%.  | 18%.   |

| January 25                                     | January 26  |
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| <br>Schizophrenia affects about 1 out of every |   |
| 100 people.                                    | People can distinguish between 3,000 and 10,000 different smells.                   |
| January 27                                     | January 28  |
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|  | Each year in the US, about 200,000 people   |
| Bees and butterflies can see ultraviolet       | require hospitalization for head injury and 52,000 people die due to head injuries. |
| light.   |   |
| January 29                                     | January 30  |
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| <br>The human cerebellum weighs about 150      | <br>There are about 300 million neurons in the                                      |
| grams.   | octopus brain.  |
| January 31                                     |   |
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| Fevers are controlled by the part of the       |   |
| brain called the hypothalamus.                 |   |

| February 1  | February 2  |
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| Sounds as loud as 130 dB can cause pain.                          | Epilepsy affects about 2.5 million people in the US.                      |
| February 3  | February 4  |
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|   | A 12 oz. can of Coca Cola has 46 mg of caffeine, a central nervous system |
| The brain of the great physicist Albert                           | stimulant. A cup of coffee has 60-150 mg of                               |
| Einstein weighed 1,230 grams.                                     | caffeine.   |
| February 5  | February 6  |
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| It is estimated that there are 60 trillion (yes,                  | Each eye of a dragonfly has about 30,000                                  |
| trillion) synapses in the cerebral cortex.                        | lenses.   |
| February 7  | February 8  |
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| In the US, one third of all adults complain about sleep problems. | The channel catfish has 100,000 taste buds on the outside of its body.    |
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| February 9  | February 10   |
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|   | The corpus callosum, the fiber tract that<br>connects the right and left hemispheres of |
| About 4 million people in the US have   | the brain, contains more than 300 million   |
| Alzheimer's disease.  | axons.  |
| February 11   | February 12   |
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| The venom of the black widow spider is  |   |
| called "latrotoxin." This toxin causes a massive release of acetylcholine from      | <br>The X-ray was invented by Wilhelm Konrad  |
| neuromuscular junctions.  | Roentgen in 1895.   |
| February 13   | February 14   |
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| The human cerebral cortex has an area of  |   |
| about 2.5 square feet, has 25 billion<br>neurons, is interconnected by over 100,000 | <br>The eardrum (tympanic membrane) is only   |
| kilometers of axons and receives 300  | 0.1 millimeter thick and weighs only 14   |
| trillion synapses.  | milligrams.   |
| February 15   | February 16   |
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| The "four-eyed" fish ("Anableps") has TWO   |   |
| pupils in each of its eyes. Therefore it can  | <br>Approximately 50% of the population of the  |
| See above and below the water at the  |   |
| see above and below the water at the same time.                                     | US is nearsighted.  |

| February 17   | February 18                                   |
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| The human hypothalamus weighs about 4 grams.  | <br>A giraffe sleeps only two hours each day. |
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| February 19   | February 20                                   |
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| The human eyeball is 24.5 mm (~ 1 in)   | There are about 1,200,000 nerve fibers in     |
| long.   | each human optic nerve.                       |
| February 21   | February 22                                   |
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| The adult human spinal cord weighs about  | <br>The brain of a cat weighs about 30 grams. |
| 35 grams (0.1 lb).  |   |
| February 23   | February 24                                   |
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|   | As many as one in five Americans will be      |
| There are about 3 million miles of axons in the human brain.  | affected by a mental illness sometime in      |
| A state of the second s<br>second second se | their lives.                                  |

| February 25   | February 26   |
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|   | Of the 31,000 suicides in the US each year,                         |
| The aplysia ("sea hare") has a nervous system with only 20,000 neurons. | 60-80% are associated with depression or manic-depression.          |
| February 27   | February 28   |
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| The economic cost of stress and stress-                                 | Odin, a central character in Norse mythology, used two ravens named |
| related disorders in the US is \$200 billion                            | "Thought" and "Memory" to bring him news                            |
| each year.  | from around the world.  |
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| March 1  | March 2   |
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|  | After early childhood, synapses in the  |
| The cerebral cortex makes up about 77% of the total volume of the human brain. | human neocortex are lost at a rate of 100,000 synapses per second.                |
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| March 3  | March 4   |
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|  | <br>Clausama is a leading squar of blindness                                      |
| Approximately 8% of all males and about  | Glaucoma is a leading cause of blindness in the US. Approximately 5,400 Americans |
| 0.5% of all females are colorblind.  | go blind from glaucoma each year.   |
| March 5  | March 6   |
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| Head injuries account for 62% of bicycle-<br>related deaths.                   | The gene responsible for Huntington's disease was discovered in 1993.             |
| March 7  | March 8   |
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| Humans can hear sounds with frequencies  |   |
| between 20 and 20,000 Hz; cats can hear frequencies between 100 and 60,000 Hz; | <br>Written about 1,700 B.C., the Edwin Smith                                     |
| elephants can hear frequencies between 1                                       | surgical papyrus contains the first recorded                                      |
| and 20,000 Hz.   | use of the word "brain."  |

| March 9   | March 10   |
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| The world's largest invertebrate (animal                                    |  |
| without a backbone) is the giant squid ( <i>Architeuthis dux</i> ).         | The National Institutes of Health was established in 1887.                     |
| March 11  | March 12   |
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| The term "homo sapiens" comes from the                                      | There are approximately 1 billion neurons                                      |
| Latin words meaning "wise man."   | in the human spinal cord.  |
| March 13  | March 14   |
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|   | A giraffe has seven vertebrae in its   |
|   | neckthis is the same number of neck bones as in people and most other          |
| In 1891, Wilhelm von Waldeyer coined the term "neuron."                     | mammals.   |
| March 15  | March 16   |
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| Venomous snakes can be dangerous even after they are dead. People have been |  |
| "bitten" by snakes that were dead or thought to be dead.                    | When asleep, humans spend 23.1% of the time in rapid eye movement (REM) sleep. |
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| March 17  | March 18  |
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| <br>Receptor cells in the taste buds are<br>replaced about once every 10 days.  | The word "carotid" (carotid artery) comes<br>from the Greek word karotis meaning<br>"deep sleep." |
| March 19  | March 20  |
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|   | Agenesis of the corpus callosum (ACC) is a birth defect in which the structure that               |
| <br>The cerebellum makes up 10% of the total                                    | connects the two hemispheres of the brain (the corpus callosum) is partially or                   |
| volume of the human brain.  | completely absent.  |
| March 21  | March 22  |
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| Taste buds are not just found on the tongue; they are also found on the palate, | <br>The brain of the fly contains 337,856   |
| pharynx and larynx.   | neurons.  |
| March 23  | March 24  |
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| Opossums do not have a corpus callosum (the large bundle of axons that connects |   |
| the right and left cerebral hemispheres).                                       | Many spiders have eight eyes.   |

| March 25  | March 26  |
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| The Controlled Substances Act of 1970                                 |   |
| states that the mandatory penalty for                                 |   |
| possession of 1 gram of LSD is 5 years in prison.                     | <br>The human eye weighs about 7.5 g.   |
| March 27  | March 28  |
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|   | <br>A 12 oz can of Jolt cola has 71 mg of                                     |
| The barbituate "pentobarbital" is also                                | caffeine. A cup of coffee has 60-150 mg of                                    |
| known as truth serum.   | caffeine.   |
| March 29  | March 30  |
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|   | The brain of a goldfish makes up 0.3% of                                      |
| The first lobotomy in the US was performed by Walter Freeman in 1936. | its total body weight. An adult human brain is about 2% of total body weight. |
| March 31  |   |
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| Approximately 2 million people in the U.S.                            |   |
| are impaired by the effects of  |   |
| cerebrovascular disease, including strokes.                           |   |

| April1   | April 2  |
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| More than 28 million Americans (about                |  |
| 10% of the population) have hearing                  | <br>Cerebrospinal fluid is 99% water.  |
| impairments.<br>April 3                              | April 4  |
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|  | <br>A Purkinje neuron in the cerebellum may  |
| The human brain has 100 trillion synaptic            | receive 150,000 contacts from other  |
| connections.   | neurons.   |
| April 5  | April 6  |
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| <br>About 100 million Americans need eve             | <br>Each year there are about 300,000 brain<br>concussions that occur during sports                |
| <br>About 100 million Americans need eye<br>glasses. | <br>Each year there are about 300,000 brain<br>concussions that occur during sports<br>activities. |
|  | concussions that occur during sports   |
| glasses.   | concussions that occur during sports activities.   |
| glasses.   | concussions that occur during sports activities.   |
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| glasses.   | concussions that occur during sports activities.   |
| glasses.   | concussions that occur during sports activities.   |
| glasses.   | concussions that occur during sports activities.   |
| glasses.<br>April 7                                  | concussions that occur during sports<br>activities.<br>April 8                                     |
| glasses.   | concussions that occur during sports activities.   |

| April9   | April 10   |
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| Young adults spend about 20-25% of sleep time in REM sleep.                            | Aphasia is the name of speech and language problems caused by brain injury.          |
| April 11   | April 12   |
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|  | <br>Humans sleep for 17-18 hours a day at  |
| The knee jerk reflex takes about 30 milliseconds.                                      | birth, 10-12 hours at age 4 and 7-8.5 hours by age 20.                               |
| April 13   | April 14   |
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| The vagus nerve, important for controlling heart rate and other internal functions, is | The cerebellum is only 10% of the entire volume of the brain, but contains more than |
| the longest of the 12 cranial nerves.  | half of all of the neurons in the brain.   |
| April 15   | April 16   |
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| About 3% of all people living to the age of 80 will be diagnosed with epilepsy.        | Acetylsalicylic acid (aspirin) was first synthesized by Felix Hoffmann in 1897.      |

| April17  | April 18  |
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| In 1998, illegal drug use or nonmedical use of legal drugs resulted in 542,544 visits to | <br>About 50 ml of blood travels through 100 g                                  |
| emergency departments in the US.   | of brain tissue each minute.  |
| April 19   | April 20  |
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|  | <br>The Seciety for Neuroscience, with more                                     |
| The human corticospinal tract, the pathway   | The Society for Neuroscience, with more than 36,000 members, is the largest     |
| from the cerebral cortex to the spinal cord<br>that is important for movement, contains  | professional organization in the world<br>dedicated to the study of the nervous |
| over one million axons.  | system.   |
| April 21   | April 22  |
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|  | <br>Atropine, a drug that blocks the action of                                  |
|  | the neurotransmitter acetylcholine, comes from the plant called "the deadly     |
| The facial, glossopharyngeal and vagus   | nightshade." Belladonna is Italian for  |
| nerves all carry information about taste.  | "beautiful lady."   |
| April 23   | April 24  |
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| The three most common fears are: snakes (#1), heights (#2) and flying (#3).              | <br>Some butterflies have ears on their wings.                                  |
| $(\pi, \tau)$ , noights $(\pi Z)$ and nying $(\pi S)$ .                                  | come battermes have cars on their wings.  |

| April25   | April 26   |
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|   | <br>The human ear canal is about 2.5 cm in   |
| Between 20-28 million American have some form of hearing loss.        | length and 0.6 cm in diameter.   |
| April 27  | April 28   |
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|   | In 1904, US President Theodore Roosevelt   |
| Each of your eyeballs is moved by six                                 | threatened to outlaw football after 19 college football players were killed or       |
| muscles.  | paralyzed from brain or spinal cord injuries.  |
| April 29  | April 30   |
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|   | When children are six years old, they can  |
| As you age, the amount of rapid eye movement ("dream") sleep you have | understand approximately 13,000 words;<br>high school graduates know at least 60,000 |
| decreases.  | words.   |
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| The dura mater is the outermost covering of the brain. The term "dura mater" comes from Latin meaning "hard mother."         May 3       May 4             The roundworm (Caenorhabditis elegans) has 302 cells in its nervous system.       May 4         May 5          Each year approximately 7,000 sledders age 16 and younger are taken to the emergency room for head injuries.          May 7       May 8             The James Parkinson first described a neurological disorder called the "shaking palsy" (later to be called Parkinson's rises and in 1917   | May 1             | May 2  |
|--|-------------------|--|
| The active ingredient in catnip is called nepetalactone.       of the brain. The term "dura mater" comes from Latin meaning "hard mother."         May 3       May 4             The roundworm (Caenorhabditis elegans) has 302 cells in its nervous system.       Charles Scott Sherrington coined the term "synapse" in 1897.         May 5       May 6          Each year approximately 7,000 sledders age 16 and younger are taken to the emergency room for head injuries.          May 7       May 8          May 8             Dr. James Parkinson first described a neurological disorder called the "shaking palsy" (later to be called Parkinson's   |                   |  |
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| The active ingredient in catnip is called nepetalactone.       of the brain. The term "dura mater" comes from Latin meaning "hard mother."         May 3       May 4             The roundworm (Caenorhabditis elegans) has 302 cells in its nervous system.       Charles Scott Sherrington coined the term "synapse" in 1897.         May 5       May 6          Each year approximately 7,000 sledders age 16 and younger are taken to the emergency room for head injuries.       May 8         May 7       May 8          May 8   |                   |  |
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| The roundworm (Caenorhabditis elegans)<br>has 302 cells in its nervous system.<br>May 5<br>May 5<br>May 6<br>The roundworm (Caenorhabditis elegans)<br>has 302 cells in its nervous system.<br>May 6<br>May 6<br>The roundworm (Caenorhabditis elegans)<br>May 7<br>May 8<br>The roundworm (Caenorhabditis elegans)<br>The roundworm (Caenorhabditis elegans)<br>May 8<br>The roundworm (Caenorhabditis elegans)<br>The roundworm (Caenorhabd |                   | of the brain. The term "dura mater" comes    |
| has 302 cells in its nervous system.       "synapse" in 1897.         May 5       May 6          May 6          Mountain Dew soda (12 ounces) contains 55 mg of caffeine. A cup of coffee has between 60-150 mg of caffeine.         May 7       May 8          The folds and ridges of the outer ear are  | May 3             | May 4  |
| has 302 cells in its nervous system.       "synapse" in 1897.         May 5       May 6          May 6          Mountain Dew soda (12 ounces) contains 55 mg of caffeine. A cup of coffee has between 60-150 mg of caffeine.         May 7       May 8          The folds and ridges of the outer ear are  |                   |  |
| has 302 cells in its nervous system.       "synapse" in 1897.         May 5       May 6          May 6          Mountain Dew soda (12 ounces) contains 55 mg of caffeine. A cup of coffee has between 60-150 mg of caffeine.         May 7       May 8          The folds and ridges of the outer ear are  |                   |  |
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| May 5       May 6             Each year approximately 7,000 sledders age 16 and younger are taken to the emergency room for head injuries.       Mountain Dew soda (12 ounces) contains 55 mg of caffeine. A cup of coffee has between 60-150 mg of caffeine.         May 7       May 8          Dr. James Parkinson first described a neurological disorder called the "shaking palsy" (later to be called Parkinson's  |                   |  |
| <ul> <li>Each year approximately 7,000 sledders age 16 and younger are taken to the emergency room for head injuries.</li> <li>May 7</li> <li>May 7</li> <li>May 8</li> </ul>  |                   |  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  | May 5             | May 6  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  |                   |  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  |                   |  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  |                   |  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  |                   |  |
| age 16 and younger are taken to the<br>emergency room for head injuries.55 mg of caffeine. A cup of coffee has<br>between 60-150 mg of caffeine.May 7May 8<br>Dr. James Parkinson first described a<br>neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's<br>The folds and ridges of the outer ear are  |                   |  |
| emergency room for head injuries. between 60-150 mg of caffeine.<br>May 7 May 8 Dr. James Parkinson first described a neurological disorder called the "shaking palsy" (later to be called Parkinson's The folds and ridges of the outer ear are   |                   |  |
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| neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's The folds and ridges of the outer ear are  |                   |  |
| neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's The folds and ridges of the outer ear are  |                   |  |
| neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's The folds and ridges of the outer ear are  |                   |  |
| neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's The folds and ridges of the outer ear are  |                   |  |
| neurological disorder called the "shaking<br>palsy" (later to be called Parkinson's The folds and ridges of the outer ear are  |                   |  |
| palsy" (later to be called Parkinson's The folds and ridges of the outer ear are   |                   |  |
|  |                   | The folds and ridges of the outer ear are    |
|  | disease) in 1817. | called the pinna.                            |

| May 9  | May 10   |
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| The chemical known as ether was first<br>used to manage pain during surgery in   | <br>Physicist Albert Einstein did not speak until      |
| 1846 at Massachusetts General Hospital.  | he was three years old                                 |
| May 11   | May 12   |
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| The pupil of the eye can vary in diameter  |  |
| from 1.5 to 8.0 mm. Therefore, the amount of light entering the eye can change 30-   | <br>There are 10 billion neurons in the human          |
| fold.  | cerebral cortex.                                       |
| May 13   | May 14   |
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| <br>The word "cerebellum" comes from the   | <br>The brain of the bottle-posed dolphin              |
| Latin words meaning "little brain."  | weighs about 1,500 grams.                              |
| May 15   | May 16   |
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| Worker honey bees have a ring of iron  |  |
|  | <br>The term "dendrite" was introduced by C            |
| navigation.  | Golgi in about 1870.                                   |
| May 15<br><br>Worker honey bees have a ring of iron<br>oxide ("magnetite") in their abdomens that<br>may be used to detect magnetic fields for | May 16<br><br>The term "dendrite" was introduced by C. |

| May 17  | May 18  |
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|   | <br>The part of the brain called the "amygdala"                                       |
| Each year about 10,000 babies born in the   | gets its name from the Greek word for   |
| US develop cerebral palsy.  | "almond" because its shape.   |
| May 19  | May 20  |
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| The aroma of coffee contains over 800   |   |
| different chemicals, but only 20-30 of them contribute to the characteristic quality. | Monarch butterflies migrate up to 3000 kilometers (1,864 miles).                      |
| May 21  | May 22  |
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|   | There are 1 quadrillion synapses in the   |
| In 1504, Leonardo da Vinci produced wax   | human brain. That's 1,000,000,000,000,000<br>synapses! This is equal to about a half- |
| casts of the ventricles of the human brain.   | billion synapses per cubic millimeter.  |
| May 23  | May 24  |
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| The weight of the human brain triples   |   |
| during the first year of life, going from 300 grams to 900 grams.                     | Thomas Willis coined the term "neurology" in 1681.                                    |
| grams to 500 grams.   |   |

| May 25                                     | May 26                                       |
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| Every 33 minutes someone dies in an        | The word "axon" comes from the Greek         |
| alcohol-related traffic accident.          | word meaning "axle" or "axis."               |
| M 07                                       | -  |
| May 27                                     | May 28                                       |
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| The lumbar puncture, a method to obtain    |  |
| cerebrospinal fluid by inserting a needle  |  |
| between the lumbar vertebrae and into the  | About 30 million people (10% of the          |
| subarachnoid space of the spinal cord, was | population) in the US have functionally      |
| introduced in 1891 by Heinrich Quinke.     | significant hearing loss.                    |
| May 29                                     | May 30                                       |
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|  | The olfactory epithelium of the human nose   |
| The cerebral cortex is composed of six     | contains about 12 million olfactory receptor |
| layers of cells.                           | neurons.                                     |
| May 31                                     |  |
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| The human olfactory system is              |  |
| anatomically complete before birth.        |  |
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| June 1   | June 2  |
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| There are an estimated 300,000 sports-<br>related brain concussions in the US each | <br>Women comprise 22% of the LIS eccentific  |
| year.  | Women comprise 22% of the US scientific and engineering workforce.                  |
| June 3   | June 4  |
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| <br>A jellyfish has no brain.  | Roman emperors believed that eating lettuce would help a person sleep.              |
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| June 5   | June 6  |
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|  | <br>The US Drug Enforcement Agency seized   |
| The word "cochlea" comes from the Latin  | 9.3 million ecstasy pills in 2000 (up from  |
| word meaning "snail shell."  | 400,000 in 1997).   |
| June 7   | June 8  |
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| Americans consume about 45 million   | In the season finale (May 14, 1998) of the TV show "Seinfeld," Jerry Seinfeld said, |
| pounds of caffeine each year.  | "Maybe if we lie down our brains will work."  |

| June 9  | June 10   |
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| Birds are insensitive to the effects of hot                                       |   |
| peppers because they do not have receptors for the chemical (capsaicin) that      | At least 56,000 motor vehicle accidents each year in the US are attributed to   |
| makes hot peppers "hot."  | sleepiness behind the wheel.  |
| June 11   | June 12   |
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|   | <br>The entire left series of the nerver for                                    |
| Normal vision for people is 20/20. A hawk's                                       | The entire last name of the person for<br>which Tourette Syndrome is named is   |
| vision is equivalent to 20/5. This means the                                      | Gilles de la Tourette. People dropped the                                       |
| hawk can see from 20 feet what most people can see from 5 feet.                   | "Gilles de la" and the disorder is known<br>simply as "Tourette Syndrome."      |
| June 13   | June 14   |
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| The expression "memorize by heart" is derived from the old belief that the heart. |   |
| not the brain, was important for memory.  |   |
| Also, the word "record" comes from the Latin word for "heart."                    | The word "physician" comes from the<br>Greek word "physis" meaning "nature."    |
| June 15   | June 16   |
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|   | When tests for speed and accuracy are given, people who stay awake continuously |
| Three neuroscientists were awarded the  | for 20-25 hours have similar problems as  |
| Nobel Prize in Physiology or Medicine in 2000.                                    | people who have a blood alcohol level of 0.10%.                                 |
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| June 17   | June 18   |
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|   | Compared to humans, houseflies are 10                 |
| Slime eels have no eyes, but they do have light-sensitive sensors in their tails. | million times more sensitive to the taste of sugar.   |
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| June 19   | June 20   |
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| Epilepsy was once called "morbus  |   |
| Herculeus" because it was thought that  |   |
| Hercules had epilepsy. Epilepsy was later called "morbus sacer" which means       | The giant axon of the squid can be 100 to             |
| "sacred disease."   | 1000 times larger than a mammalian axon.              |
| June 21   | June 22   |
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|   | A textbook on phrenology, the "science"               |
| The octopus and squid belong to the class   | correlating bumps on the skull with                   |
| of animals known as the "Cephalopoda" meaning "head-footed."                      | personality traits, sold over 100,000 copies in 1827. |
| June 23   | June 24   |
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| There are an estimated 300,000 sports-  | Tarantulas and other spiders sense                    |
| related concussions in the US each year.  | vibration with hairs on their legs.                   |

| June 25  | June 26   |
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| Nine out of 10 people are right-handed, 8<br>out of 10 people are right-footed, 7 out of |   |
| 10 people are right-eyed and 6 out of 10 people are right-eared.                         | After age 30, the brain shrinks a quarter of a percent (0.25%) in mass each year. |
| June 27  | June 28   |
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| The neurotransmitter serotonin was first   | <br>12.5 billion aspirin tablets, gelcaps and                                     |
| isolated in 1933.  | caplets are consumed each year in the US.   |
| June 29  | June 30   |
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|  | <br>The iris, the colored part of your eye, gets                                  |
| Sleepwalking is also known as  | its name from the Greek word meaning  |
| "somnambulism"; sleeptalking is also known as "somniloquy."                              | "rainbow." In Greek mythology, the goddess of the rainbow is named Iris.          |
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| July 1  | July 2  |
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| When neuroanatomist Santiago Ramon y  |   |
| Cajal was 11-years-old, he destroyed a  | <br>The Tekey seeks (Cekke sekke) yees it   |
| neighbor's gate with a homemade cannon and spent three days in jail.            | The Tokay gecko (Gekko gekko) uses it tongue to clean its eyes.                       |
| July 3  | July 4  |
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| Without myelin, the human brain would have to be 10 times bigger than it is now |   |
| and we would have to eat 10 times as  | <br>The size (  |
| much to maintain our brain.   | The giant anteater has no teeth.  |
| July 5  | July 6  |
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|   | Neuroptera" is the name of an insect order  |
| <br>Approximately 450 million people suffer                                     | including the lacewings and antlions.<br>"Neuro" comes from the Greek word for        |
| from neuropsychiatric (mental and   | "nerve" and "ptera" comes from word for   |
| behavioral) disorders.  | "wing."   |
| July 7  | July 8  |
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| The pupil in the eye of the giant cuttlefish (a                                 | The Snellen Eye Chart (the one with the letter E pointed in different directions) was |
| squid-like animal) is rectangular.  | invented by Dr. Hermann Snellen in 1862.  |
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| July 9  | July 10  |
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| The "absolute threshold" in humans for vision is a candle flame, 30 miles away, on a dark, clear night. | The "absolute threshold" in humans for hearing: A ticking watch 20 feet away in a quiet place. |
| July 11   | July 12  |
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| The "absolute threshold" in humans for  | The "absolute threshold" in humans for   |
| taste is a teaspoon of sugar in 2 gallons of water.   | smell is a drop of perfume in a three-room apartment.  |
| July 13   | July 14  |
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| <br>The "absolute threshold" in humans for  | Eagles have more than 1 million  |
| touch is the wing of a bee falling from 1   | photoreceptors per square millimeter in their retinas; humans have 200,000                     |
| centimeter onto your cheek.   | photoreceptors per square millimeter.  |
| July 15   | July 16  |
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| In 2000, 495 doctorates were awarded in   |  |
| neuroscience; 39.4% of these new PhDs were women.   | Approximately 80% of the dragonfly brain is devoted to processing visual information.          |
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| July 17  | July 18   |
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|  | <br>In 1921, Hermann Rorschach developed  |
| Every year 27 million people in the US   | the inkblot test to assess personality.   |
| benefit from pain relief, sedation and unconsciousness from anesthetics.         | Each day in the US, 33 babies are born with permanent hearing loss.                           |
| July 19  | July 20   |
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|  | <br>The second second second second second  |
|  | The average (median) amount of sleep<br>each day by university students was 7.75              |
| Rats will die after two to three weeks of total sleep deprivation.               | hrs (in 1969); 7.13 hrs (in 1979), 6.75 hrs<br>(in 1989); 6.65 hrs (in 2001).                 |
| July 21  | July 22   |
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| Approximately 600,000 people in the US have a stroke every year, and 167,000 die | <br>Approximately 1 in every 1,000 people in  |
| from it. Stroke is the third leading cause of death in the US.                   | the US has the autoimmune disease multiple sclerosis.   |
| July 23  | July 24   |
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| Between 1987 and 1997, the number of   | On May 13, 1935, World War I hero   |
| people in the US being treated for depression more than tripled, from 1.8        | Colonel T.E. Lawrence (better known as<br>"Lawrence of Arabia") suffered a fractured          |
| million to 6.3 million, while those taking antidepressants doubled.              | skull when he lost control of his motocycle.<br>He fell into a coma and died five days later. |
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| July 25  | July 26  |
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|  | In the US, 10% of children and adolescents   |
|  | suffer from mental illness severe enough to cause impairment. However, only 20% of |
| Worldwide, 120,000 tons of caffeine are  | these children and adolescents receive   |
| consumed each year.  | mental health services.  |
| July 27  | July 28  |
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| Sharks can detect electrical fields  |  |
| generated by animals. To detect these  |  |
| fields, sharks use special organs called ampullae of Lorenzini that are located            |  |
| below their eyes.  | Another word for sneezing is "sternutation."                                       |
| July 29  | July 30  |
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|  | <br>Potov tomporarily paralyzas muscles by   |
| A shark's hearing is similar to that of a  | Botox temporarily paralyzes muscles by<br>interfering with acetylcholine, which    |
| whale or dolphin.  | transmits nerve signals to muscles.  |
| July 31  |  |
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| Sharks have a fantastic sense of smell.  |  |
| Fish extracts with concentrations of only 1 part per 10 billion parts of water can alter a |  |
| shark's behavior.  |  |
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| August 1   | August 2  |
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| Huntington's disease, an incurable,  |   |
| untreatable inherited illness, affects 30,000 people in the US, slowly killing their brain |   |
| cells and eroding muscle coordination,   | In 1999, 30.1% of all traffic accidents   |
| memory, judgment, and emotional stability.   | resulting in a fatality involved alcohol.   |
| August 3   | August 4  |
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| The first Ph.D. with "Psychology" in its title   |   |
| was given to Granville Stanley Hall at Harvard University in 1878.                         | Women metabolize caffeine about 25% faster than men.                                  |
| August 5   | August  |
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| <br>Raccoons can smell an acorn buried up to   | Sharks can detect pressure that depresses their skin only eight ten-thousandths of an |
| two inches under dry powdery sand.   | inch (10 microns).  |
| August 7   | August 8  |
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| <br>Destisides which discuss the   |   |
| Pesticides which disrupt the nervous system are part of the reason why 32                  | Glaucoma is the second leading cause of blindness in the US. The number one           |
| species of frogs have become extinct in the last few decades.                              | cause of blindness in the US is macular degeneration.                                 |
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| August 9   | August 10  |
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| Allan MacLeod Cormack, who won the   |  |
| 1979 Nobel Prize in Medicine or Physiology<br>for the invention of computer-assisted | Cats can hear sounds in a 10.5 octave range. Humans have a hearing range of                  |
| tomography, never received a PhD or MD.  | about 9.3 octaves.   |
| August 11  | August 12  |
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|  | The annual salary range for a neurologist is   |
|  | \$106,000 to \$199,701. The annual salary range for a psychiatrist is \$110,000 to           |
| One child goes blind every minute.   | \$152,008.   |
| August 13  | August 14  |
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|  | In 2001, eight young U.S. football players   |
|  | died as a direct result of injuries suffered   |
| Approximately 160 million people in the US   | on the field. Of these eight players, six died of brain injuries, 1 died of a fractured neck |
| wear glasses or contact lenses.  | and one died of a ruptured spleen.   |
| August 15  | August 16  |
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|  | At the 2002 USA Memory Championship,<br>Scott Hagwood correctly matched 97 of 99             |
| It is estimated that more than seven million   | faces and names after spending 15  |
| people become blind every year.  | minutes studying the pairs.  |

| August 17  | August 18  |
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| The original recipe for Coca-Cola contained a small amount of cocaine (about 22.5    |  |
| milligrams of cocaine per gallon). Cocaine was removed from Coca-Cola in 1903.       | The average daily consumption of caffeine among adults is 200 mg/day.              |
| August 19  | August 20  |
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| The country with the most neurologists per person is Lithuania where there are       |  |
| approximately 6,240 people for every   | Americans spend \$11 billion each year for   |
| neurologist.   | glasses and contact lenses.  |
| August 21  | August 22  |
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| <br>Sharka can dataat watar mayamant through   |  |
| Sharks can detect water movement through a series of pit organs (the lateral line    | In the US, more than 80% of adults   |
| system) located under their skin.  | consume caffeine on a daily basis.   |
| August 23  | August 24  |
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| <br>The "cauda equina" is the name for the   |  |
| collection of spinal nerves at the lower end   |  |
| of the spinal cord. The term "cauda equina" comes from the Latin words meaning "tail | Percentage of university students who are "dissatisfied" with their sleep: 24% (in |
| of a horse."   | 1978), 53% (in 1988), 71% (in 2000).   |

| August 26   |
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| <br>An estimated 180 million people worldwide                 |
| are visually disabled.  |
| August 28   |
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| As people age, their ears get larger. Ear                     |
| circumference increases on average 0.51 millimeters per year. |
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| August 30   |
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| <br>In the early 1920s, Hans Berger recorded                  |
| the first human electroencephalogram                          |
| (EEG).  |
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| September 1   | September 2   |
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| <br>Derkinger le discose effects (1.20% of results                                      |   |
| Parkinson's disease affects 1-3% of people<br>over the age of 65 years and 10% of those | In 2001, 17,448 people died in alcohol-<br>related motor vehicle crashes. That is 41% |
| over 80 years.  | of the year's total traffic deaths  |
| September 3   | September 4   |
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|   | Humans can feel a dot that is only 0.006<br>mm high and 0.04 mm across when it is     |
| The word "neurology" was coined by  | moved across a fingertip. A standard  |
| Thomas Willis in 1681.  | Braille dot is 167 times higher.  |
| September 5   | September 6   |
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| <br>The word "dendrite" (the part of a neuron   |   |
| that brings information toward the cell   | The vertebral column, the collection of   |
| body) comes from the Greek word meaning "tree."   | bones (back bone) that houses the spinal cord, is approximately 70 cm long.           |
| September 7   | September 8   |
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| <br>Dipolor dipordor, o parious brain disease   |   |
| Bipolar disorder, a serious brain disease that causes extreme shifts in mood, energy,   |   |
| and functioning, affects approximately 2.3  | The complete inability to taste is called   |
| I million adults in the LLS or about 1.20/ of   |   |
| million adults in the U.S. or about 1.2% of the population.                             | ageusia and the reduced ability to taste is called hypogeusia.                        |

| September 9   | September 10  |
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| Thomas Edison is reported to have said,   |   |
| "Sleep is an acquired habit. Cells don't sleep. Fish swim in the water all night. | <br>In 2001, the use of GHB (gamma                  |
| Even a horse doesn't sleep. A man doesn't   | hydroxybutyrate) resulted in 3,340                  |
| need any sleep."  | emergency-room visits in the U.S.                   |
| September 11  | September 12  |
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| The average number of neocortical neurons lost is 1 each second or                | <br>The average intelligence quotient (IQ)          |
| approximately 85,000 each day or  | score is 100. About 68% of the population           |
| approximately 31 million each year.   | has IQ scores between 85 and 115.                   |
| September 13  | September 14  |
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| The word "retina" comes from the Latin  | Normal eye pressure ranges from 10-22               |
| word meaning "net."   | mm Hg.  |
| September 15  | September 16  |
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| "Cataract" comes from the Latin word  | The number of neurons in the neocortex of           |
| "cataracta" meaning "waterfall" because   | females is 19.3 billion; in males, the              |
| looking through a waterfall is similar to the vision that results from cataracts. | number of neurons in the neocortex is 22.8 billion. |
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| September 17   | September 18  |
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| <br>An eagle can see a rabbit from three miles<br>away.                    | In a 7-year study, people who ate at least<br>one serving of seafood once a week had a<br>30% lower risk of developing dementia<br>than those who ate less seafood. |
| September 19   | September 20  |
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| Smells and tastes are experienced in                                       | The length of myelinated nerve fibers in the brain is 150,000-180,000 km.   |
| approximately 1% of all dreams.  |   |
| September 21   | September 22  |
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| Composer Ludwig van Beethoven may have been poisoned by lead; his hair had | <br>The brain of a grasshopper has  |
| lead levels 100 times greater than normal.                                 | approximately 16,000 neurons.   |
| September 23   | September 24  |
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| The average number of neocortical glial                                    |   |
| cells in young adults is 39 billion; in older                              | The number of synapses in the cortex is   |
| adults, there are 36 billion glial cells.                                  | 0.15 quadrillion.   |

| September 25   | September 26   |
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| "Rabies" comes from the Latin word   | The vagus nerve, important for controlling the functions of many internal organs, gets |
| "rabere," meaning "to rave" as well as a Sanskrit word for doing violence.           | its name from the Latin word meaning "wandering."                                      |
| September 27   | September 28   |
| September 27   | September 20   |
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| Rubbing baby teeth with the brain of a rabbit is an old folk remedy to prevent tooth | Roman emperor Elagabalus (3rd Century) was served 600 ostrich brains at a single       |
| decay.   | meal.  |
| September 29   | September 30   |
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| Some people, such as professional  |  |
| perfumers, can distinguish between 100,000 different smells.                         | The word "brain" appears 66 times in the plays of William Shakespeare.                 |
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| October 1  | October 2   |
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| <br>The bill of the platypus is equipped with<br>sensory receptors to detect electrical fields.<br>It may use this ability to find food. | The famous French writer/philosopher<br>Voltaire (born 1694, died 1778) is said to<br>have consumed 50 cups of coffee a day or<br>approximately 3,750 mg of caffeine a day. |
| October 3  | October 4   |
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| <br>The ancient Roman goddess of wisdom  | <br>The human retina contains approximately   |
| and war is named Minerva supposedly was  | 120 million rods and 6 million cones. Rods  |
| born when she leaped from Jupiter's brain, completely grown and dressed in armor.  | are cells used in dim light; cones are cells<br>used for color vision.  |
| October 5  | October 6   |
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| The movie "Rainman" starring Dustin  |   |
| Hoffman and Tom Cruise was inspired by a   |   |
| real person named Kim Peek who has memorized 7,600 books and every area  | <br>John Styth Pemberton, the man who   |
| code, zip code, highway and television   | invented Coca-Cola, was addicted to   |
| station in the US.   | morphine.   |
| October 7  | October 8   |
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|  | <br>The channel catfish has a chemical  |
|  | sensing system that can detect the  |
| Competitive eating champion Takeru<br>Kobayashi set a world record by eating 57  | equivalent of less than one-hundredth of a teaspoon (1 to 100 micrograms per liter) of  |
| pan-seared cow brains (17.7 pounds) in 15  | alanine (an amino acid) in an Olympic-size  |
| minutes.   | swimming pool.  |

| October 9   | October 10   |
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|   | Some unusual phobias are aerophobia  |
| Atropine, a drug that blocks receptors for<br>the neurotransmitter acetylcholine, is made | (fear of the air), chromatophobia (fear of colors), spectrophobia (fear of mirrors), |
| from the poisonous Atropa belladonna  | odontophobia (fear of teeth) and   |
| plant.  | basiphobia (fear of walking).  |
| October 11  | October 12   |
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| In the US, 50 billion aspirin tablets are consumed each year.                             | An octopus has receptors for taste on the suckers in its arms.                       |
| October 13  | October 14   |
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| <br>The rate of fatal alcohol-related motor   |  |
| vehicle crashes among drivers between 16  |  |
| and 20 years old who use alcohol is more<br>than twice the rate for drivers aged 21       | Louis Braille invented the system of<br>reading by touch (the Braille system) when   |
| years and older.  | he was only 15 years old.  |
| October 15  | October 16   |
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| <br>Within the US in 1990, approximately \$1.6  | In 2001, the three drugs that caused the most visits to emergency departments        |
| billion was used to eliminate or mask   | were alcohol (34%), cocaine (30%) and  |
| underarm odors.   | marijuana (17%).   |

| October 17   | October 18  |
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| Right-footed African Grey parrots have a larger vocabulary than left-footed African Grey parrots.  | The bacterium Streptococcus pneumoniae causes more than 3,000 cases of meningitis in the US each year.                |
| October 19   | October 20  |
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|  | <br>Drunken behavior and violent crimes   |
| Adolf Eugen Fick coined the term "contact<br>lens." He made the first contact lens for<br>vision correction from glass in 1887.                | involving adolescent drinking cost the US<br>\$53 billion per year, including \$19 million<br>from traffic accidents. |
| October 21   | October 22  |
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| In 2001, approximately 22.8% of the adults<br>in the US were smokers. In 1993,<br>approximately 25.0% of the adults in the<br>US were smokers. | Mr. Jeffries, a Bassett Hound, is the dog<br>with the longest ears. His ears measure<br>29.2 cm (11.5 in) in length.  |
| October 23   | October 24  |
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| John Adams (2nd President of the US) and his son, John Quincy Adams (6th President   |   |
| of the US), were both born in Braintree,<br>Massachusetts.   | Leonardo da Vinci designed contact lenses made of glass filled with water.  |

| October 25   | October 26   |
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| Eight hours in a smoky bar breathing   |  |
| second-hand smoke is the equivalent to smoking a pack of cigarettes.   | A sperm whale's click is the loudest sound produced by any organism on the planet. |
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| October 27   | October 28   |
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| <br>The corpus callosum, the fiber tract that  | "Ammon's horn," an area of the hippocampus was named after a character             |
| connects the right and left hemispheres of   | from Egyptian mythology who had a ram's  |
| the brain, is approximately 10 cm long and   | head and large curved horns similar to the   |
| 1 cm wide.   | shape of the hippocampus.  |
| October 29   | October 30   |
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| Neuroanatomist Santiago Ramon y Cajal  | In 2001, approximately 22.8% of the adults   |
| (1906 Nobel Prize winner) worked as a barber's apprentice and a shoemaker  | in the US were smokers. In 1993, approximately 25.0% of the adults in the          |
| before his career in neuroscience.   | US were smokers.   |
| October 31   |  |
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| The second secon |  |
| The esophagus goes right through the brain of an octopus.  |  |
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| November 1   | November 2   |
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| <br>Morphine, the analgesic (pain reliever) drug<br>from the opium poppy, is named after the<br>Greek god of dreams, Morpheus.                             | <br>Approximately 3.3% of snowboarding<br>injuries involve the spinal cord; 1.4% of<br>skiing injuries involve the spinal cord.  |
| November 3   | November 4   |
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| Alexander Graham Bell, who invented the<br>telephone in 1876, suffered from<br>headaches (probably migraines) that lasted<br>hours to days.                | The human brain uses 15-20% of the<br>body's oxygen supply. The brain of the<br>African elephant nose fish uses 60% of its<br>body's oxygen supply.                      |
| November 5   | November 6   |
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| <br>Impressionist painter Claude Monet (1840-<br>1926) had cataracts and was almost blind<br>by 1922. He had cataract surgery on his<br>right eye in 1922. | Cerebral oxygen consumption is 3.5 ml/100g of brain/minute or 49 ml/minute for a whole brain. The energy consumption of the brain is equal to that of a 20 W light bulb. |
| November 7   | November 8   |
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| <br>Sailors once believed that smelling the bad<br>breath of whales could cause brain<br>disorders.  | <br>Neurophysiologist and Nobel prize winner<br>(1932) Edgar Douglas Adrian was an<br>expert fencer and mountaineer.   |

| November 9  | November 10  |
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| Bruxism, or grinding of the teeth, causes tooth and jaw pain in 15-20% of people in     | <br>An octopus has twice as many nerves in its   |
| the US.   | body than it has in its brain.   |
| November 11   | November 12  |
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| Approximately 24.5% of people between the ages of 53 and 97 years have an               | A severe lack of vitamin A can result in<br>night blindness, the inability to see in low |
| impaired sense of smell.  | light conditions.  |
| November 13   | November 14  |
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|   | The venom of some scorpions affects a  |
| There are 186 million MORE neurons in the left cerebral hemisphere of the brain than in | victim's nervous system. In 2002, scorpions stung 15,687 people in the US and two        |
| the right hemisphere.   | people died.   |
| November 15   | November 16  |
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| Forty years ago, 42% of adults in the US  | The Centers for Disease Control (CDC)  |
| smoked. Today, approximately 23% do.<br>Surveys report that 70% of smokers want         | estimates that 500,000 people in the US exhibit symptoms of chronic fatigue              |
| Garreys report that rove of smokers wall  |  |
| to quit.  | syndrome.  |

| November 17   | November 18  |
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| Panic disorders affect 2.4 million adults in the US each year.              | The average duration of a single blink is 0.1 - 0.4 seconds.                       |
| November 19   | November 20  |
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|   | <br>In the US each year, 1.4 million people  |
| The eye of an octopus does not have a                                       | have cataract surgery, making it the most  |
| cornea.   | common operation.  |
| November 21   | November 22  |
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| Oilbirds have the highest density of rod                                    | There are more than two million cases of   |
| receptors (1 million rods per square millimeter) of any vertebrate eye. The | traumatic brain injury (TBI) in the US each<br>year. Most TBIs are caused by motor |
| highest density of rod receptors in humans                                  | vehicle accidents, falls, gunshot wounds   |
| is only 175,000 per square millimeter.                                      | and sports injuries.   |
| November 23   | November 24  |
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| <br>In 1921, Austrian scientist Otto Loewi                                  |  |
| discovered the first neurotransmitter that he                               |  |
| named "Vagusstoff." We now call this chemical "acetylcholine."              | <br>The octopus is color blind.  |
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| November 25  | November 26   |
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| The iris is the circular band of muscles that  |   |
| controls the size of the pupil in the eye and gives color to the eye. The iris was named |   |
| after the mythological character Iris, the   | The word "doctor" comes from the Latin  |
| Greek goddess of the rainbow.  | word "doceo" that means "to teach."   |
| November 27  | November 28   |
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| An estimated 20.5 million people in the US older than 40 years have a cataract in        | At least 30 million neurons in the entire                                     |
| either eye. It is estimated that 30.1 million people will have cataracts by 2020.        | visual cortex are activated by the single                                     |
| November 29  | image of a house or face.   |
| November 29  | November 30   |
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|  | The world's smallest vertebrate (animal                                       |
| The word "pain" comes from the Latin word "poena" that means punishment or penalty.      | with a backbone) is the stout infantfish ( <i>Schindleria brevipinguis</i> ). |
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| December 1   | December 2  |
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|  | Humans can detect one molecule of green   |
| Central and South American poison frogs produce about 600 chemicals in their skin.       | pepper smell when it is mixed in the air with 3 trillion other molecules.             |
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| December 3   | December 4  |
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|  | Aspirin, the commonly used pain reliever,   |
| The first football helmet used during a game was worn when Army played Navy in           | gets its name by combining the "a" from acetyl and "spirin" from "spiraeic acid," the |
| 1893.  | old term for salicylic acid.  |
| December 5   | December 6  |
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| Almost 50% of the people in the US wear  |   |
| eyeglasses. The total spent for eyeglasses   | The average amount of time required to  |
| in the US is \$13 billion.   | attain a PhD in the biomedical sciences is approximately 6.9 years.                   |
| December 7   | December 8  |
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| The upper canine teeth are sometimes   |   |
| called the "eye teeth" from the false belief<br>of ancient physician/anatomist Galen who | <br>The first cervical vertebra (backbone) is   |
| thought that a nerve in these teeth came   | also called the atlas. Atlas was one of the   |
| from a nerve that also supplied the eye.   | Titans in Greek mythology.  |

| December 9  | December 10  |
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|   | In 1863, Adolf von Baeyer synthesized  |
|   | barbituric acid, the first barbiturate. He named this chemical after his girlfriend  |
| Most walruses appear to be right-"handed."                | Barbara.   |
| December 11   | December 12  |
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| Bhutan was the first country to ban the sale              |  |
| of tobacco.   | A crocodile cannot stick out its tongue.   |
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|   | <br>The brain of a worker honeybee weighs  |
| <br>Some snails can sleep for three years.                | <br>The brain of a worker honeybee weighs<br>only 1 milligram.   |
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| <br>Some snails can sleep for three years.                | <br>The brain of a worker honeybee weighs<br>only 1 milligram.   |
| <br>Some snails can sleep for three years.                | <br>The brain of a worker honeybee weighs<br>only 1 milligram.<br>December 16  |
| <br>Some snails can sleep for three years.<br>December 15 | <br>The brain of a worker honeybee weighs<br>only 1 milligram.<br>December 16  |
| <br>Some snails can sleep for three years.<br>December 15 | <br>The brain of a worker honeybee weighs<br>only 1 milligram.<br>December 16<br><br>About 2 to 3 out of every 1,000 children in<br>the US are born deaf or hard-of-hearing.<br>Nine out of every 10 children who are born |
| <br>Some snails can sleep for three years.<br>December 15 | <br>The brain of a worker honeybee weighs<br>only 1 milligram.<br>December 16  |

| December 17  | December 18   |
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| Depression occurs in 2% of elementary school-aged children and 4-8% of                 | <br>Squid and cuttlefish have eye with W-                                 |
| adolescents.   | shaped pupils.  |
| December 19  | December 20   |
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| Swordfish have special tissue (a "brain<br>heater") behind their eyes that warms their | <br>Although stroke is the third most common                              |
| brains as much as 14 degrees centigrade  | cause of death in the US, its death rate has                              |
| above the temperature of the water.  | declined 65% since 1950.  |
| December 21  | December 22   |
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| Several types of beetles are attracted to forest fires. These beetles detect the heat  | <br>Some fish (e.g., sharks, sturgeon),                                   |
| of forest fires with receptors for infrared  | lampreys, salamanders and the platypus                                    |
| radiation.   | can detect weak electrical fields.  |
| December 23  | December 24   |
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| <br>Every day, people worldwide light up 15<br>billion cigarettes.                     | <br>There are approximately 6,800 languages<br>spoken in the world today. |

| December 25   | December 26  |
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|   | <br>A "Mickey Finn" is a drink made with   |
|   | alcohol and chloral hydrate. This drink was  |
| The stapedius muscle is the smallest muscle in the body. This muscle, 6.3 mm in | developed in the 1870s by a group of tavern owners to make customers                     |
| length, helps move the stapes bone in the middle ear.                           | unconscious. Customers were robbed after   |
|   | they became unconscious.   |
| December 27   | December 28  |
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|   | The preying mantis has been called an  |
| <br>Caffeine is the most widely used  | "auditory cyclops" because it has only one ear. The ear of this insect is located in the |
| behaviorally active drug in the world.  | middle of its underside, between its legs.   |
| December 29   | December 30  |
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| The brain of a 136 kg (300 pound)   |  |
| swordfish weighs only 2.2 grams (0.005 pounds).                                 | Emil Kraepelin coined the term<br>"Alzheimer's disease" in 1910.                         |
| December 31   |  |
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| Sleepwalking affects 2-14% of all children and 1.6-2.5% of all adults.          |  |