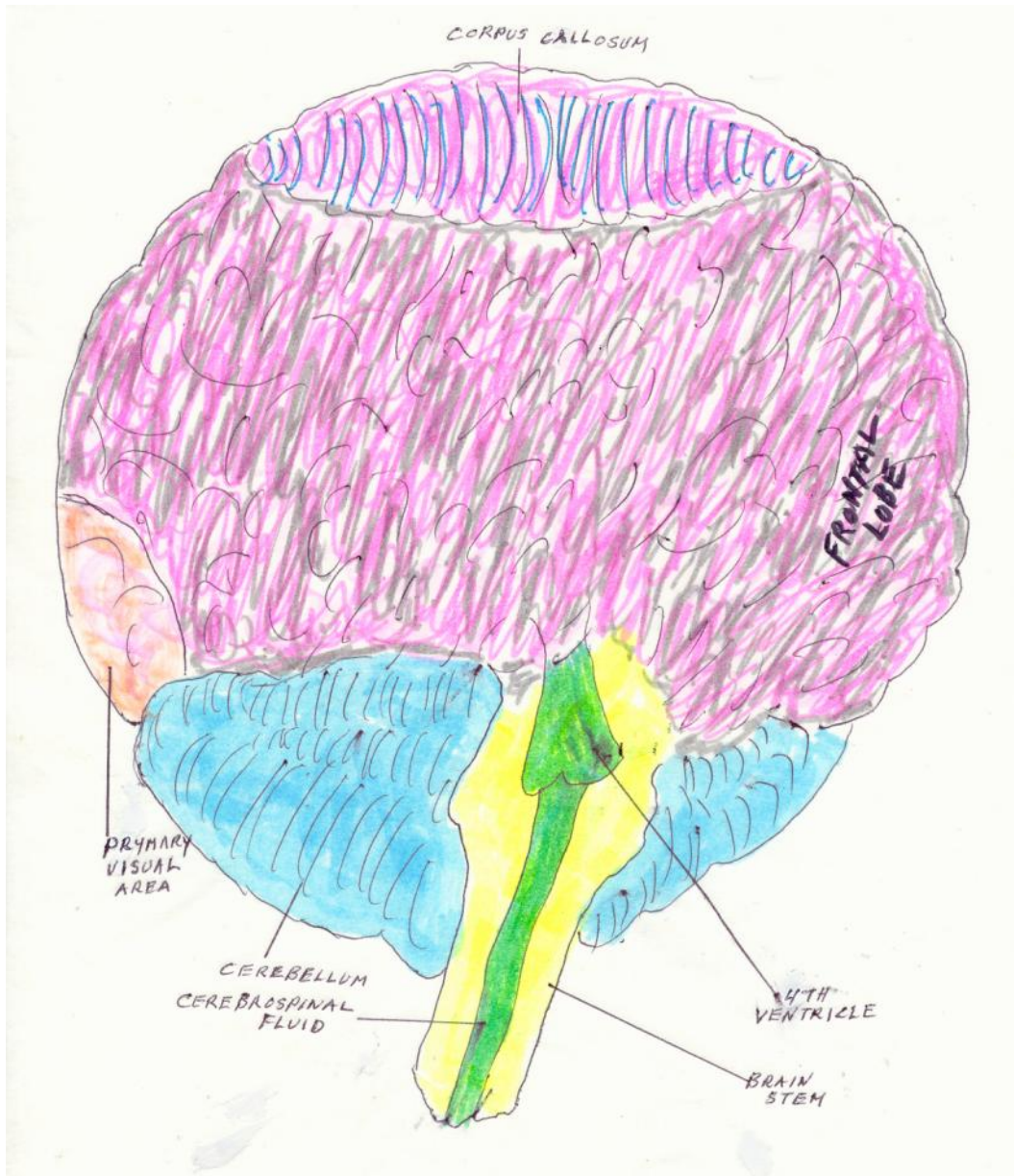


E-Book 5 How To Keep Your Brain Young



Coming from the 4th ventricle, (located just above the brain stem) is the cerebrospinal fluid, a clear liquid which delivers all the nutrients to your brain cells, while cushioning it against shock. Once it has delivered its cargo and picked up all the trash of our cells wastes, it travels back down the brainstem and is reabsorbed into the blood stream and the waste is routed to the bowel and discarded, this cleansing happens about 3 times a day.

When did neuroanatomy (study of the brain) begin and who made the earliest discoveries?

The study of the brain reaches back to 1600 B.C. when a description of it was recorded by an Egyptian doctor who was examining the smashed head of a warrior and commented on the throbbing of the pinkish gray brain equalling the size of the corpse's fist.

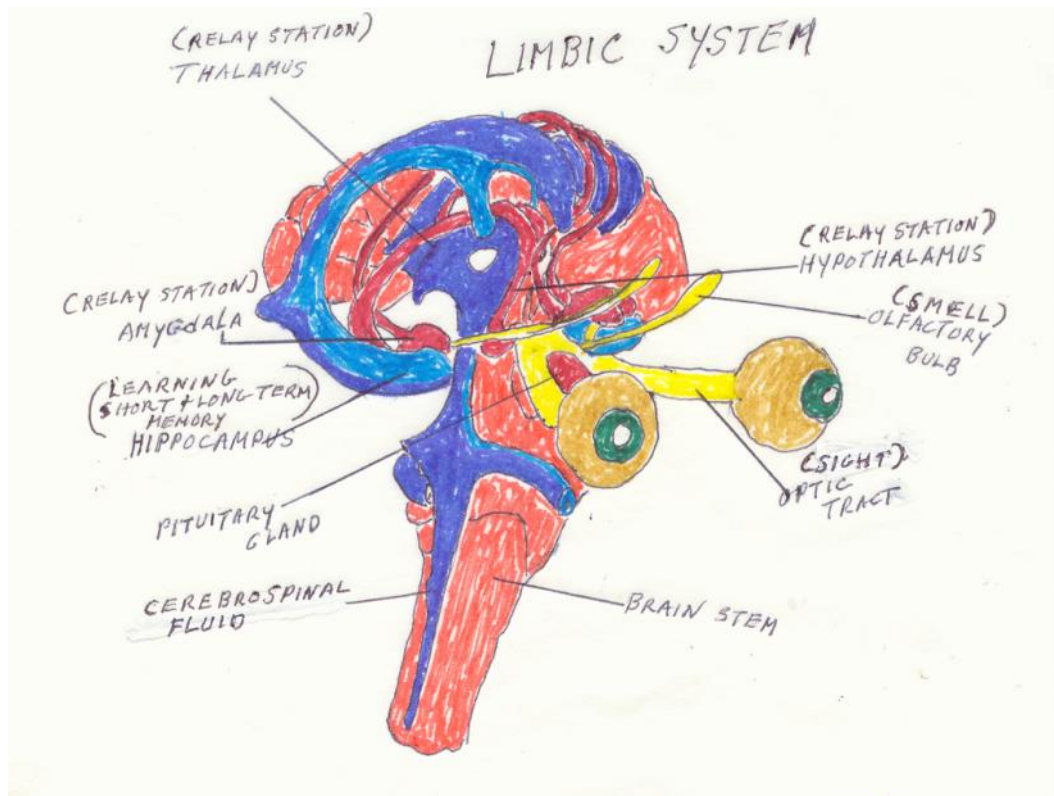
Following that, as physicians like Galen, (during the 2nd. century whose ideas prevailed for 1500 years) probed and analyzed tiny parts of the brain. They were given Latin names, **corpus callosum**, (parallel strings of fibers joining the left and right brain permitting them to communicate), **hippocampus**, (which is necessary for learning, for it converts short term memory into long term memory and constantly checks information coming into the brain from our senses), **thalamus** (located just above the brainstem and connected to the limbic system, is a major relay station analyzing information from our senses and motor nerves).

By now you are thinking, "Why do I need all these details about the brain? I am not going to medical school." Be patient, you are going to learn how to avoid Alzheimers, Dementia, Parkinson's or any brain failure for all your days on this planet. For I sincerely believe, as Hippocrates (father of medicine 460-377 B.C) did, "that disease has a natural cause from which it originates". To express it in 21st. century terms, an organ fails when it lacks some nutrient which was present when it was formed.

Think about the great minds. Over the centuries they have studied and deciphered this fabulous machine you carry in your head. Think of all the wonderful benefits you derive from that 3 pounds of pink and gray matter. First, let's contemplate memory: Without the brain recording each one of your experiences, you could never learn anything. Second, your ability to remember sets you apart from every one else, as being an individual. Third, human memory has been compared to a library, with the brain having a method of cross referencing its material. Without a place to go for reference you couldn't make a calculated decision.

Let me quote James Allen, an English reporter born in 1864, "The body is the servant of the mind. It obeys the orders of the mind. With evil, miserable thoughts, the body may sink rapidly in disease and decay. With glad and beautiful thoughts, it may clothe itself with youthfulness and beauty."

It further offers a short term memory which only retains a sound for 4 seconds and an image for less than 1 second, however you get a long term memory also. One way researchers have found to transfer a short term memory into the long term memory is to rehearse it or repeat it time and time again. A second way that a transfer happens is when the memory is connected with a strong emotion. What part of the brain controls the emotions? A small collection of parts, making up what is known as the limbic system. (See drawing below)



The nerve pathways in the limbic system send a steady flow of electrochemical impulses which are connected directly to the eyes, nose, ears and mouth. What we see, smell, hear and taste immediately affects our emotions of fear, grief, anger, laughter, happiness, contentment, craving, desires, aggression, hunger, elimination and depression. This is a very primitive controlling system needed for survival.

The limbic system is also connected to the nerves in the brain stem below it. These nerves have the job of maintaining our emotional balance and keeps us alert, being another system for survival. This is where your heart beat, blood pressure and breathing is controlled. From these same nerve cells we get signals to swallow, laugh and sneeze. The limbic system needs the amino acid Tyrosine which can be found in aged cheese, beer, wine, yeast, ripe bananas, avocado, pickled herring, chicken livers, egg whites and whey protein powders. If you use protein powders look for a minimum of 896 mgs. of tyrosine in 24 grams of protein.

The Thalamus is shown as a relay station and researchers have recently found nitric oxide in the Thalamus. This is a gas that travels in your blood stream and helps the brain understand its surroundings. At all times the limbic system is passing judgment on all of our senses, but it is the nitric oxide helping refine the information. This finding was published in the journal of Neuroscience, 8/15/2006.

At the famous Mayo Clinic, they have stated that 160,000 people die each year because of strokes. A stroke in the brain is caused when the arteries feeding blood and oxygen to the brain become clogged. What causes the arteries to clog?

Heavy metals, **Cadmium** from cigarette smoke, 1st or 2nd hand, fungicides, pesticides, soft drinks. **Nickel** from hydrogenated fats and oils, refined and processed foods and in commercial deep fryers to keep oil from going rancid. Stainless steel cookware. **Lead** from autos, trucks and buses exhausts, canned fruit and fruit juices, mascara, plumbing, pewter tableware, tobacco, wine. **Mercury** from dental amalgam fillings, cosmetics, fabric softeners, fungicides, tattooing. **Superphosphate fertilizers** on food crops.

Also **Calcium deposits and LDL cholesterol** referred to as plaque clogging the walls of your arteries, veins and capillaries.

Actually, a solution to clogged arteries has been available since 1941. When men who worked in battery factories or painted ships with lead-based paint began coming down with lead poisoning from the exposure in their jobs. A safe, harmless, amino acid was found to remove the lead from their bodies. It is called EDTA, (ethylene diamine tetraacetic acid) and the treatment is known as chelation therapy. Originally this treatment was administered by intravenous injection. It took about 3 hours sitting still with a needle in your arm and cost about \$300 to \$400 dollars a treatment generally requiring 10 treatments.

In 1955 research done at the Providence Hospital in Detroit, Michigan found that EDTA dissolves "metastatic calcium". That means calcium that ends up in the wrong places in the body, like arteries, joints, kidneys and bones of the inner ear.

However, we now have the same EDTA compound to take orally in doses high enough, 500 mgs., to be effective, yet safe enough to take without a doctors supervision. Oral chelation is an effective, convenient and affordable way for people to rid their bodies of heavy metals, "metastatic calcium" and LDL cholesterol. You can order on line at www.vitacost.com, I suggest Arizona Natural, with 500 mgs. In each capsule. It has the calcium di-sodium base, which is preferable to a magnesium base.

In the last 52 years, hundreds of papers have been published and two mega studies evaluating the results of over 24,000 chelation therapy patients. The results showed that 88% of the patients showed excellent improvement with zero side effects. A study was recorded in the Journal of Chronic Disease that EDTA is 3 times safer than ordinary aspirin.

You can do your own test and see the plaque being removed in your urine. Items you will need: Take 2 small glass containers with lids and a 200 watt light bulb placed in a lamp.

1. The night before you start taking EDTA, put approximately four to six ounces of your urine sample in the first container and cover tightly with a lid.
2. Begin taking your EDTA, a 500 mg. capsule, 3 times a day.
3. Wait 3 days, take another urine sample. Place it in the second glass container and cover it with the lid. Let it sit overnight.
4. Switch on the light bulb and hold the first container in front of the light. Gently swirl the liquid in a circular motion. It should look yellow in color with no sediment swirling in the mix.
5. Now, do the same thing with the second container, which was the sample you took after starting EDTA. As you swirl the liquid, you will notice a "white tornado" of tiny particles. That is the deadly plaque that was building up in your arteries and leaving you prone to a brain disaster.

As for the other amino acids needed by the brain, they are called essential, (indicating the body cannot make them. They have to be ingested every day.) Histidine, isoleucine, leucine, valine, methionine, phenylalanine, threonine, tryptophan. Check any protein powders for all these amino acids. I will write an E-Book on how important all the amino acids are to the mind and body.

Additional nutrients the brain needs are:

Malic acid, 300 mg. per day, dissolves aluminum deposits which adhere to the artery walls. Do not cook in aluminum pots and pans for you will be absorbing minute particles of the poisonous mineral. It can also be found in underarm deodorant, children's aspirin tablets, and some baking powders. EDTA does not have the ability to dissolve aluminum.

B vitamins feed the nerves and your nerves carry the electrical currents that make your brain function. If you have been eating mostly cooked foods, only getting raw vegetables in a salad, once or twice a day, then I would recommend you get 100 mg B-Complex and 800 mcg. of folic acid for your B-vitamin intake. Decreased levels of folic acid have been shown to cause brain damage. If you feel "run down" most of the time, add sublingual B12, 1,000 mcg., to your B-intake too. And after 50 years of age you absorb less and less of your B vitamins from your food each year.

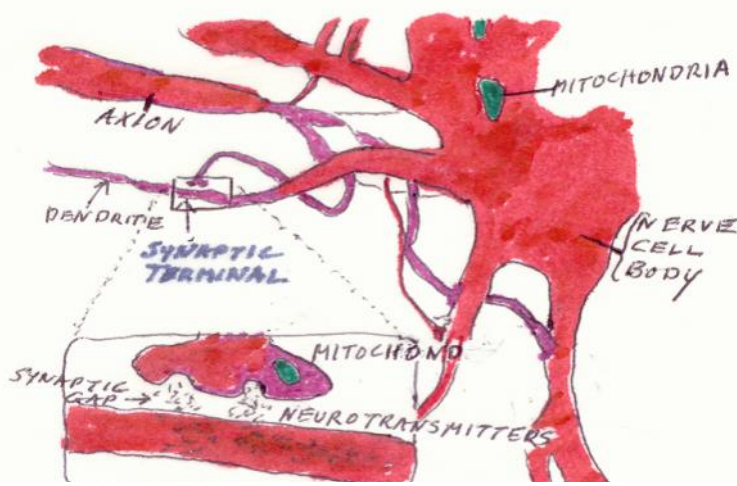
Vitamin E (natural, not synthetic) functions primarily as an anti-oxidant. It protects the outside covering of a cell from attack by a bacteria or virus and nerve cells are quite vulnerable. **Parkinson's** is one disease that is connected with a vitamin E deficiency. It further is known to keep the platelets, (the blood stream's smallest cell whose job it is to seal small tears in blood vessels) from sticking to each other and forming a clot unnecessarily. An unnecessary clot in a brain artery will cause a stroke. A Japanese study also showed that vitamin E had a beneficial

effect on patients with cerebral arteriosclerosis (hardening of a blood vessel merging with a vein) using 800 iu's of vitamin E a day for 6 months. With all the benefits of Vitamin E. I would recommend staying on 800 iu to 1200 iu for the rest of your life. You will find me referring to it in most of my E-Books.

Zinc for Alzheimer patients. A study in Europe found that when 27 mgs of zinc were given to these patients on a daily basis, the staff and family members commented on an improvement of communication, understanding, social contact and memory. **Zinc for Dementia**, from DNA experts comes the finding that nerve cells in the brain can be destroyed by a zinc deficiency. Also zinc absorption into the blood stream is helped by picolinic acid, which is produced by the pancreas and most people over 60 have some pancreatic problems.

With this information it is smart to get a zinc picolinate product, (you can order over the internet from www.skyport.com/brownvillemills/np.html) **Zinc** also protects against lead poisoning and against the toxic effects of cadmium which is one cause of high blood pressure. Zinc has been found necessary to the breakdown of alcohol. In one study, animals given a lethal dose of alcohol were protected by a supplementation of zinc. I would recommend 50 to 80 mgs. of zinc to protect the brain against more than 2 drinks a day of alcohol

CO-Q-10 is normally present in our mitochondria (see in drawing of brain nerve cell). It is called the chemical factory of the cell, for this is where energy is produced from the protein, sugars and fats we eat, so the cell can live and reproduce. It also happens to be an excellent anti-oxidant protecting your brain cells from free radicals. Yet, like the other systems of our body we don't produce as much CO-Q-10 after age 35 so supplementation is necessary. Start out with 30 mgs. a day. When you finish that bottle take 50 mgs. a day. When finished with that bottle move up to 100 mgs. maintain at that level. You can order this product from Carlson Labs www.carlsonlabs.com. This nutrient should be taken when you are eating something with oil or fat in it. Meat, fish, chicken, butter, salad dressing, this would probably be a dinner meal. If you prefer to take it at breakfast, swish about an 1/8th of a teaspoon of butter around in your mouth first, that will make sure the CO-Q-10 will be delivered to your mitochondria. Your saliva glands will wake up your oil enzymes otherwise you will not get the benefits of CO-Q-10.



See the axion coming from another nerve cell, it is like a cable with many wires each one capable of carrying many messages. Yet, there is control on what gets through and what doesn't

In the picture of the nerve cell, notice the synaptic terminal. I have enlarged it so you can see how the brain sends messages from one cell to another using chemicals called neurotransmitters. In the brain diseases, the neurotransmitters are blocked from the receiving dendrite. Since 1973 researchers have been testing PhosphatidylSerine (PS) for solving this problem and treating these illnesses.

PS is extremely well tolerated. As early as 1987 there was a large double blind study on a group of elderly patients. They were allowed to stay on their medications such as antacids, anti-thrombotics, insulin, calcitonin anti-inflammatories, anti-ulcerdreruetics, anti-arrthymics, calcium channel blockers

With PS being so safe, patients with Alzheimer's can be kept on all their medication and still take PS at 300 mgs. a day. Patients with Parkinson's at 500 mgs. a day. Patients with age related memory decline should start out with 300 mg. a day for a couple of months then go down to 200 mg. a day for maintenance. People who just want a mental "tune up" 100 mg. a day. This advice comes from Parris M. Kidd, Ph.D., a foremost scientific authority on nutrition. PS has proven it can reverse brain decline.

However, researchers have found that sustained emotional stress starves the brain cells of oxygen and nutrients causing excessive damage. Yet studies proved that PS can lighten the stress load, relieve mood swings and depression, not only in older people but young healthy people too. PS also has been shown to tune up the awake and asleep rhythms which become very erratic as we age. You can be sure that unless you are serious about conserving the brain capacity you now have, you will have less to work with as years go by. If you can't find PS at your health food store, go to www.carlsonlabs.com and order on line.

The next question is what does the brain need to maintain its operation? First of all, the brain needs protein to make new cells and for that figure take your weight and divide it by 2. The answer will be the amount of grams of protein your body needs each day. If you don't get your full ration of protein, your body will steal it from your muscles to keep the vital organs going as long as possible.

To maintain your brain power you'll find that living holistically is the answer. To live holistically means to organize all your activities and thinking into harmonious channels. The bottom line to adopting the holistic way of life is that you need to be aware of what you are doing and thinking. So it is not something that you can turn over to your doctor, lawyer, accountant, religious counselor, your spouse, mother or father, TV, computer or a newspaper. True you need all these sources to keep you informed, but, you must choose your priorities.

You have control of your mind and the power to decide what you will focus on and what you will do at any given time. Following are five temptations that will challenge your will power to live holistically.

1. Eliminating or replacing damaging substances to your brain

Avoid processed foods, any prepared food, or packaged chicken, turkey, sausage, lunch meat, canned goods.

Remove mercury fillings in teeth and have them replaced

Tap water, use bottled water or buy a reverse osmosis water filter

Pesticides and herbicides on food on your lawn or garden,

Artificial sweeteners, flavors and colors

Polluted air, second hand smoke, exhaust fumes from vehicles,

buy an individual ionizer to clean the air around your nose and mouth.

Ration your alcohol to two 80 or 90 proof drinks a day

2. Keep the brain active by being involved in community activities or having a hobby. You need to continually give your brain a challenge .

Mental stimulation is necessary to maintain the rebuilding of the brain circuits. Like any other organ in the body it needs stimulation.

All the muscles must be exercised to maintain your strength, the eyes must be exercised to maintain your vision, your bones and joints must be exercised to maintain your locomotion. So your brain must stay interested in something that makes you jump out of bed in the morning, motivated, to accomplish certain things that day. Whether, it is a wake up letter to your congressman, or a game of golf or tennis, or a special lunch date, make it something that gets you excited. Remember when you were 16 and wanted to attract that certain guy in school? Boy, the makeup had to be just right, the hair had to be perfect, your demeanor had to be interesting, but not too easy. Or you wanted to attract a certain girl? You had to think of ways to show you were stronger, smarter, maybe, funnier than the other guys. Your brain was tripping over itself with ideas whenever you saw her. What I am demonstrating here is the fact that your brain needs a challenge everyday, and I don't care if you are 16 or 90 to stay active and alive. So after you have been through puberty, romances and menopause the three stages of life, your fourth stage of life is to stay active mentally.

3. Do an exercise that increases blood flow to the brain

The easiest way of accomplishing this is to get your feet above your heart for at least 15 minutes a day. This can be done by putting your feet up on the headboard of your bed with a pillow under your buttocks. Or lying on the floor with your feet on a chair seat or couch. If you have a slant board that is *great!* Be sure to find 15 minutes a day to relax. Focus on some lovely place you have been where you felt very contented with your selfe.

Think of all the things you have accomplished giving yourself a few "pats on the back" for your perseverance and how good you felt at the time. We neglect giving our brain the recognition it deserves.

| 4. Beware of excitotoxins

These are ingredients in food and soft drinks that cause the nerve cells to become overexcited. In a report by Russell L. Blaylock, M.D., MSG (monosodium glutamate) and Aspartame has been added to our food since 1948. They do not enhance the food value only make it taste better. Food manufacturers disguise the name by calling them natural flavors, spices, yeast extract and textured protein. The items for adding flavor to your meals is overloaded with these excitotoxins, in the fun shaped pastas, in soups, gravies, snack crackers, tomato sauces and bread crumbs. Also in sugar free soft drinks, baby foods and infant formulas. The other excitotoxin, Aspartame, is found in Nutrasweet, an artificial sweetener, used in candy and beverages.

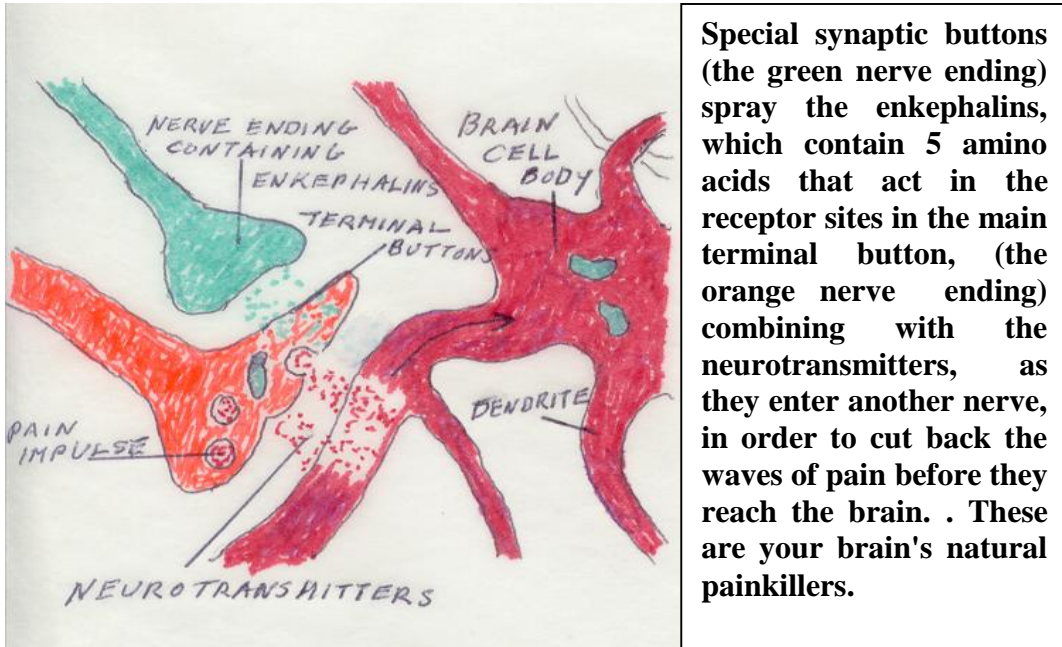
How do these damage your brain? When the neurotransmitters, (see drawing of the neurotransmitters) deliver a message from one nerve cell to another and are overloaded with these toxins, they become very excited and fire their impulses repeatedly until they are exhausted, within hours the nerve cells die. Strong scientific evidence suggests that this reaction could cause brain damage especially in children, during puberty and in elderly adults.

| 5. Take dietary supplements, especially PS (Phosphatidyl Serine)

Let me just mention one more benefit from PS. If you have any connections with a person with Alzheimers you might want to share this with their caretaker. Clinical studies conducted by Dr. Thomas H. Crook and his associates in 1992. "Effects of phosphatidylserine in Alzheimer's disease." Psychopharmacology Bulletin 28:61-66. They documented that patients with Alzheimers really showed the benefits of PS.

Some clients of mine from 60 to the age of 80, with memory loss and Dementia have experienced the benefits of PS. One man, at the age of 65 who was still selling real estate, complained that he was forgetting phone numbers and details about the properties he was selling. After being on PS just two weeks, he called me and said, "I notice a difference already, could this stuff work that fast?" I said, "According to a study by Dr Crook and his researchers at Vanderbilt University on 51 patients, ages 55 to 85, took PS for 12 weeks. Out of the 51, 33 showed marked improvement, like memory for names and recall of misplacing keys and glasses, recall of details of events in the past week "It could work that fast for you". He came in two weeks later and enthusiastically said, "It does work that fast I'm feeling sharper and remembering phone numbers, names and details about my listings, this stuff is great."

However well your may be eating, our food is not as nourishing as it should be because of depleted soils; from using chemicals for fertilizer for over 60 years. We have no choice but furnish our bodies with quality supplements. One last asset your brain offers is the production of Enkephalins (see drawing).



To summarize: To keep the brain young you need to remember its special needs, like protein, natural vitamin and minerals, exercise, take time to relax, think about pleasant things and take Phosphatidylserine.

Also remember to avoid any excitotoxins, fried foods and drugs. Many pharmaceuticals, such as sleep aids, anti-depressants, or mood and behavior medication have been proven to be responsible for an estimated 10% of all cases of dementia. That last statement is from the Public Citizen Research Group in Washington, D.C.