

# Understanding Our Brain

The human body is an extremely intricate, divinely computerized and a highly evolved vehicle. It is much like man-made vehicles in that it must be in perfect running condition in order to get a "good performance."

The nervous system consists of three major parts that must be in a healthy condition in order to work smoothly together. First let's consider the brain

## **BRAIN**

The encephalon. That part of the central nervous system contained in the cranial cavity, consisting of the cerebrum, cerebellum, pons and medulla oblongata.

## **CEREBRUM**

The chief portion of the brain, occupying the whole upper part of the cranium, and consisting of the right and left hemispheres; the endbrain; telencephalon

## **CEREBELLUM**

The inferior part of the brain lying below the cerebrum and above the pons and medulla, consisting of two lateral lobes and a middle lobe.

## **PONS**

A convex white eminence situated at the base of the brain. It consists of fibers and nuclei which receive impulses from the cerebral cortex, and sends fibers to the contralateral side of the cerebellum by way of the brachium pontes."

## **MEDULLA OBLONGATA**

The upper, enlarged part of the spinal cord, extending from the cord opposite the foramen magnum to the pons."

The above gives a brief general description of the brain, showing where the various sections lie in the cavity, but let's go in a little deeper to see how the different sections of the brain work together.

The following information is taken from The New Modern Home Physician, (Wm. H. Wise and Co., Inc., 1947):

- ✓ "The large masses of nervous tissue forming the brain has an average weight of forty-nine ounces in a male adult.
- ✓ The structure of the brain shows extraordinary complexity.

- ✓ The larger part consists of the cerebrum in the form of two hemispheres, right and left, which are connected together by a broad band of fibers running transversely, and known as the corpus callosum.
- ✓ Below this come, in succession and on either side, masses of gray nervous matter, the optic thalamus and corpus striatum, and a stalk, the crus, literally a limb.
- ✓ Then there is the pons or bridge, and lastly the medulla oblongata or bulb which is continuous with the spinal cord (q.v.).
- ✓ Behind and below the cerebral hemispheres is the cerebellum, **or little brain**, which also consists of two hemispheres. These are connected with each other by a central part called the vermiform process and also through the pons.

## **NERVOUS MATTER**

Nervous matter is of two kinds, gray and white. The former consists of nerve cells and their processes, and the latter of medullated nerve fibers, that is to say, nerve fibers which have a protective white sheath. Both the fibers and the cells are supported by a kind of connective tissue called neuroglia.

The outer surface of the cerebrum and of the cerebellum is composed of layers of gray matter, and this is infolded, forming convolutions, affording thereby an increase in the area of the brain surface.

The optic thalamus, as stated, is composed of gray matter, and besides this there are other masses in the base of the brain, in the crus, the pons and the medulla. It is in the cells of the gray matter that nerve energy originates. The nerve fibers of the white matter merely transmit such energy.

Within the brain there is a series of cavities known as ventricles, which communicate with each other and have a canal that runs down the center of the spinal cord. These are filled with a watery fluid, called the cerebrospinal fluid. The brain is covered by three membranes, the pia mater, in close contact with the brain substance, the arachnoid and the dura mater. The last is in two layers, one lining the interior of the skull, and the other supporting the brain and sending folds into the deep fissures in the brain in order to accomplish this.

The space beneath the arachnoid is filled with cerebrospinal fluid, which is in communication with the fluid in the ventricles of the brain through certain openings at the back of the medulla oblongata. This fact is of importance in connection with the occurrence of hydrocephalus (q.v.). It will be appreciated also that, as a preventive against injury, the brain has the advantage of resting on a water cushion.

The deeper fissures seen on the surface of a cerebral hemisphere mark its division into lobes. The fissure of Rolando (after the Italian anatomist, Luigi Rolando), which, beginning a little behind the top of the head, runs obliquely downwards and forwards, marks the boundary between the frontal lobe in front and the parietal lobe behind. The occipital lobe lies behind the parietal, and below these is the temporal lobe. The mention of these lobes simplifies reference to the functions of the brain. The gray matter on its surface contains millions of nerve cells, which are grouped according to the work they do. In front of the fissures of Rolando is the area concerned with initiating voluntary movements,

subdividing into parts serving the leg, arm and face in this order from above downwards. The left side of the brain serves the right side of the body, however, and vice versa.

Sensation is to some extent served by this area, but more by the parietal lobe. Tactile sensations and those of pain and temperature are, however, appreciated by the optic thalamus; but this is under the control of the cerebral cortex or outer surface, and if this control is lost pleasing sensations become more pleasing and painful more painful. In the optic thalamus, also, it would appear that movements expressive of emotion originate, smiling, for example, or grimacing from pain.

The center for hearing is in the temporal lobe, and the smell seems to be related to a part of the brain at the anterior extremity of this lobe. The centers for vision are in the occipital lobe. The speech centers appear to be in the lower frontal and parietal lobes on the left side for a right-handed person. The cerebellum is of importance in preserving equilibrium, and in coordinating the movements of muscles so as to permit the performance of complicated actions.

From the brain comes twelve pairs of nerves, whose names and actions are as follows: (1) olfactory, subserving smell; (2) optic, nerve of vision; (3) oculomotor, supplying most of the muscles which move the eyeball and the muscle which contracts the pupil; (4) nerve supplying the muscle which turns the eyeball downwards and outward; (5) trigeminal, nerve supplying sensation to the face, etc., and to the muscles of mastication; (6) nerve supplying the muscle which turns the eyeball outward; (7) facial, nerve supplying the muscles of the face; (8) auditory, subserving hearing; (9) glossopharyngeal, a nerve of taste, also supplying sensation to the inside of the throat and activating some muscles there; (10) vagus, or wandering nerve, supplying the heart, lungs, stomach and other viscera, etc., (11) spinal accessory, supplying muscles in the neck; (12) hypoglossal, supplying the muscles moving the tongue.

The blood supply of the brain is derived from the internal carotid and the vertebral arteries. The venous blood and cerebrospinal fluid drain into the large venous channels, known as sinuses, which, in turn, pour their contents mainly into the internal jugular vein. At various points on the surface of the skull these sinuses are connected with external veins, which, if they become infected, may communicate infection to the veins within. One of the sinuses, the sigmoid, lies on the inner side of the mastoid process, and not infrequently becomes infected in suppurative disease of the middle ear.

## **'Injuries and Disease of the Brain'**

An injury to the head may cause concussion, a condition characterized by transitory, or rarely, more prolonged loss of consciousness without evidence of gross damage to the brain. In its mildest form it is little more than the sensation of being stunned after a blow to the head. When the injury is more severe and causes bleeding into the brain or over its surface, or if skull fracture results with secondary pressure on the brain by a spicule of bone or by a depressed bone fragment, there results a proportionate loss of brain function, as for example, paralysis, impairment in mental faculties, visual disturbances, etc. There are certain late complications of head injury which may be of serious import. Of these the most frequent are the occurrence of late bleeding, meningitis and brain abscess. In the case of bleeding and abscess many of the symptoms may be the result of brain compression.

Concussions may give rise to nothing more than the sensation of giddiness and slight headache of short duration. The patient may, when recovering from a stunning blow, feel nauseated and vomit. Persistent vomiting after a head injury is always a serious sign. Likewise the degree of alertness which the patient shows after the accident is an important sign. Prolonged drowsiness with difficulty in arousing the patient is a danger signal. Concussion, itself, is usually recovered from completely. In some cases, however, there are persistent symptoms in the form of memory defects, headaches, irritability, inability to concentrate, etc. Since there are centers for motor and sensory functions in the brain the residual symptoms of injury depend on the amount and position of brain tissue affected. If, for example, the centers for movement are irritated, convulsions occur which may be limited to a single limb, or be generalized and involve all four limbs, in which case consciousness is generally lost. Laceration of the brain may result in a prolonged state of semi-consciousness or alternating states of wakefulness and drowsiness. Not infrequently these patients exhibit states of irritability and excitement characterized by confusion and disorientation. Should meningitis or brain abscess develop the patient shows a temperature rise. In meningitis the headache is intense and the patient is often sensitive to light. Compression of the brain results in the profound unconsciousness known as coma. The breathing is slow and stertorous, though later it may become rapid and irregular. There may be paralysis of the limbs on one side of the body, or in the later stages both sides may be affected.

The most efficacious single measure to be taken for patients who have suffered a head injury is to put them completely at rest. They should be kept in bed until further medical advice can be given. While awaiting the doctor an attempt may be made to lessen the shock by putting hot-water bottles to the feet and the sides. The room should be darkened and quiet. Alcoholic stimulants should never be given.

Inflammation of the brain substance is called encephalitis (q.v.). Occasionally the term polio-encephalitis is used when the gray matter is especially involved. The latter condition is similar to the inflammation of the gray matter of the spinal cord, which results in infantile paralysis. Convulsions, fevers, visual disturbances, sleep disturbances are common symptoms in encephalitis.

When the blood supply of a part of the brain is cut off, as, for example, by an embolus, the tissue dies and undergoes liquefaction or softening. In old people hardening of the arteries may produce such areas of softening in the brain, and, as a consequence, some degree of mental deterioration. In mild cases the only sign may be a disturbance in memory for recent events. It is characteristic in these cases that the memory for the remote past remains intact.

The most common tumors of the brain are the meningiomas, derived from the coverings of the brain, and the gliomas. Sarcomas and cancers do occur but are almost always derived from tumors in other parts of the body, for example, the breast and the bowel. Tumors of any size and duration produce certain general symptoms indicative of an increase in the intra cranial pressure, namely, headache, vomiting and optic neuritis or swelling of the optic nerve just as it enters the eyeball. Dizziness is another common symptom, and in the late stages mental changes may occur. In tumors of the frontal lobe mental changes are sometimes the earliest indication of the disease process. Tumors of the temporal lobe often produce a dreamy state, sometimes associated with hallucinations of smell.

The position of the tumor may often be determined by noting the muscular and sensory abnormalities of various parts of the body and correlating the findings with what is known regarding the localization of function in the brain."

The brain must be properly nourished and kept free of inorganic materials that can cause this tremendous organ to malfunction.

Processed foods, stale refined foods, etc., minerals in hard water (which minerals can be accepted into the body, but never assimilated) - these materials are accumulated and cause hardening of the arteries known as arteriosclerosis. This is explained in *The New Modern Home Physician* (Wm. H. Wise and Co., Inc., 1947):

### **Arteriosclerosis**

"Arteriosclerosis." The literal meaning of arteriosclerosis is hardening of the arteries, and this is what happens in the disease. Degenerative changes occur in the walls of the vessels which impair their elasticity, and a deposit occurs in the inner coat which narrows the lumen of the vessel. The vessels are weaker also and tend to rupture when exposed to strain, thus giving rise to aneurysm or hemorrhage. A change of the kind is apt to appear in the arteries after middle life, and in old age they may be more or less rigid tubes. In some people, as a part of their physical inheritance the arteries may harden at an unusually early age. Increase in blood pressure is an important cause, and unfortunately, the blood pressure may be abnormally high for a long time without giving any marked hint of its presence. Lead poisoning, syphilis and kidney disease are among other causes which should be mentioned. Arteriosclerosis may also give rise to kidney disease, and it may result in enlargement of the heart.

It gives rise to a large variety of symptoms, depending to some extent on the site of vessels affected. Some of these are: giddiness, especially on altering one's position; headache; impairment of the power of attention; weakness or paralysis of muscles; coldness of the hands and feet; insomnia; noises in the head; shortness of breath and pain over the heart. The possibility of its occurrence should be borne in mind by those who have passed middle life and especially by those who live freely." (p. 56)

One vulnerable area in the human body for this "hardening of the arteries" is found in the brain. Regardless of how intelligent an individual has been in the past, when the arteries in the brain area become hardened there is a resulting slowness in thinking, loss of memory, headaches, dizziness, dimming eyesight, paralysis, and one of the saddest conditions of all - senility.

When there has been a severe condition of stroke, or a long-standing case of senility, autopsy will often show a brain that has practically "turned to stone." So it is obvious that even the most brilliant scholar can become senile if he allows such a condition to occur in his body, i.e., clogged or hardened arteries.

Arteriosclerosis can be reversed if one will reverse the cause and the "cause" is the use of inorganic, dead, stale, processed and overcooked foods. Use fruits, vegetables, grains, nuts and seeds, and as many of these "raw" or "wholesome" as possible. Also, low-heated foods, such as grains, lentils, potatoes, etc., can be used.

Eliminate all sugar and flour products, and change from processed foods to live foods, and healthful drinks such as raw vegetable juices.

Another part of the "reversing program" of overcoming hardening of the arteries is the principle of flushing the system with steam distilled water. The amount used should be one ounce of steam distilled water for each pound of body weight per day. As an example, a person of 130 pounds of weight should drink no less than 130 ounces or approximately one gallon of this water each 24 hours. This (steam distilled) water is pure and can do miracles for a person who will drink it faithfully.

Ponce de Leon journeyed to the New World in search of the Fountain of Youth, whose water would give eternal life to the one fortunate enough to drink of it.

Gilgamesh, who had lived through the ancient civilizations of Sumer and Akkad, was recorded by the Babylonians as searching the world over for supplies of special water that give him virtual immortality.

Many legends tell of magic water which would sustain life forever for those fortunate enough to find them and keep drinking them. Even Christ used the simile of the Water of Life.

WHO, The World Health Organization, a division of the United Nations, has reported that people living in areas of the Middle East, where the main source of water consists of trapped and stored rain water, live an average of 11% longer than their neighbors who have well and river water.

How would you, as an American with a life expectancy of 72 years, like to live another eight years? How much would you pay for each additional year?

You can, you know - the secret that the ancients, Gilgamesh and Ponce de Leon, were seeking was pure water - water which did not add to the inorganic mineral burden of the body; water which can purify the cellular system; water which can remove inorganic toxins rather than add to them.

This water is to be used alone and not in the form of tea, or used to dilute juice. This is a pure flush and cleanser that also washed out the dead, inorganic salts and minerals. These dead minerals are accumulative and collect in injured or weakened areas of the body. After a period of time these can cause side effects, after effects, and disease. As an example, hard water and finely processed foods can cause kidney stones, gall stones, arthritis, hardening of the arteries, cataracts, etc. Steam distilled water will clean these inorganic minerals out of the body by a "leaching" process. The same water that leaches away the "inorganics" will not vibrate to the live organic minerals, and so leaves the live ones in the body to be assimilated and "put to good use" in repairing and building new cell structure.

When steam distilled water is used alone, the cleansing is far superior and far more efficient than when mixed with food or juices. When used with other liquids or solid foods, the body is working hard on a digestive program and has not time for the cleanse. It would be wise to follow the Three-day Cleanse Program regularly on a monthly basis (Dr. C.). Many find great help in using various yoga postures, especially the shoulder stand, and we would recommend them, at least, the daily use of the slant board.

To speed up the cleansing of the brain, circulatory, nerve centers, and system, it would be of great help to many, to use the following formula as an aid to better brain activity and to aid in the overcoming of memory loss. Blue vervain, periwinkle, blessed thistle, lobelia, cayenne and ginger combination has been a great help to many who are wondering why their memory is slipping. We recommend two or more capsules of this combination two or more times a day. This combination is a food and cleanser for the nerves, veins and arteries in the brain area.

The blood stream delivers to the cells nutrients and carries off waste, as well as feeding and rebuilding the very cells in the circulatory system and to assist in this process the distilled water is doing its job of leaching off the inorganic minerals, cholesterol, etc., that had put a lining inside the vein and artery walls. We now will add a circulatory formula.

This formula is given to assist blood purifying teas to work more efficiently and to also aid the clearing up of allergies, etc. This group of herbs feeds cayenne (a stimulant) and ginger (stimulant) into the circulatory system where the cayenne works from the bloodstream to the heart and arteries, out into the veins. The other herbs in the formula assist these two herbs and work together to equalize the blood pressure (whether high or low) and to bring it to a good systolic over the diastolic reading. Blood flow is life itself. The blood circulatory combination consists of ginger, cayenne, golden seal, ginseng, parsley and garlic.

As we notice here, the cayenne, a stimulant, is working in the blood stream to the heart, then to the arteries, veins and capillaries in a continuous circuit. It also is supplying calcium phosphorous, potassium, magnesium, iron, Vitamin A, thiamin, riboflavin, capsacutin, and Vitamin C (ascorbic acid). These not only assist in leaching, but feed the circulatory cells, renewing them with elasticity for expansion and contraction. This is the herb that changes the circulatory system from an "old rubber hose type" (that breaks with varicosity) to strong new type veins that can take the extra pressure.

Ginger is another stimulant, but it goes from the blood stream into the capillaries. Plugged up capillaries are the beginning of "constipation of the circulatory system" (where it has difficulty in ridding the blood stream of waste materials). This fine herb is high in sulfur, potassium, chlorine, calcium and phosphorous.

Besides having Vitamin A, thiamin and riboflavin, it is high in niacin. Lack of niacin is one of the causes of schizophrenia (one of our most ignored sources of niacin is whole wheat and most other whole grains). Here we see that ginger has many values in it to aid the circulatory system.

Golden seal is an anti-infectious herb. Ginseng is the tonic of tonics to aid the entire area. Parsley is a diuretic to aid in urine and waste elimination. Garlic is one of the great antihistamines and has an amazing healing effect on the cells. It has much organic sulfur, allyl propyl disulfide, fluorine, pyridoxine, iron, phosphorous and calcium. These are healing and rebuilding substances.

We have discussed the amazing, computerized brain, which, if used at its best, can think clearly, remember well, have perfect recall, and can tune into the great Universal Mind. "God will not dwell in

an unclean tabernacle." Messages being carried to the brain needing solutions or answers must have connection to every part of the body (messages coming to and going from the brain).

The second part of the nervous system to consider is the spinal cord. We need a large cable type (and in good condition) carrier of messages to and from the brain. Then there are hundreds of thousands of small lines (or nerves) from all over the body connecting the cable (spinal cord) which will be able to send "messages" to the brain (body controller).

The brain is of no good to an individual unless the messages can be transferred from it to various parts of the body, where and when needed. We quote again from *New Modern Home Physician*, (Wm. H. Wise and Co., Inc., 1948):

### **Spinal Cord**

" Spinal Cord." The medulla spinalis, or spinal cord, occupies the canal formed by the arches of the superimposed vertebrae of the spine. It is continuous above with the medulla, or bulb, the lowest part of the brain, and extends downwards as far as the lower border of the first lumbar vertebrae, where it ends in a blunt point, called the conus medullaris. Its average length in the male adult is about 18 inches and its thickness about that of the little finger. Prolonged downwards from the conus medullaris is a cord, known as the filum terminate, which is attached at its lowest ends to the first coccygeal vertebrae.

The membranes of the brain are prolonged through the foramen magnum, the large opening in the base of the skull, and the outermost, the dura mater, lines the spinal canal. Within this is the arachnoid, and around the cord, the pia mater, a band of which passes across on either side attaching the cord to the inner surface of the dura; as this attachment is by means of a series of tooth-like processes, the band is called the ligamentum denticulatum.

The cord is cylindrical in shape, but somewhat flattened in front and behind, and presents two enlargements, one in the cervical regions, from which the nerves to the arms go out, and another in the lower dorsal region, from which are supplied the nerves to the legs. There are thirty-one pairs of spinal nerves, namely, eight cervical, twelve dorsal or thoracic, five lumbar, five sacral and one coccygeal. The first cervical passes out above the topmost vertebrae, the axis, the others pass between adjoining vertebrae. Each nerve has an anterior motor root, its fibers actuating muscles, and a posterior sensory root bearing sensations. On the latter is a swelling formed by the posterior root ganglion.

As the cord itself reaches no lower than the first lumbar vertebrae, the lumbar, sacral and coccygeal nerves pass downwards in a bunch, somewhat resembling a horse's tail, and so called the cauda equina. The bag formed by the dura mater extends as far down as the middle of the sacrum, however. This bag contains cerebrospinal fluid.

It will be seen that one important function of the cord is to serve as a conducting cable, as it were, between the brain and other parts of the body, the nerve fibers being grouped together in bundles, or tracts, according to their function and the parts they supply. The other function of the cord is to act as a reflex center. Some of the afferent fibers pass forward in the gray matter to arborize round motor cells

in the anterior horn, thus completing a reflex arc - sensory nerve endings in the skin or elsewhere, afferent fibers, nerve centers in the cord, efferent fibers, and muscles whereby the reflex action is produced.

The spinal nerves have a segmental distribution which is most clearly seen in the thoracic nerves, each of which passes round beneath a rib, thus supplying a ring of the body tissues. Below the seventh rib the terminations of the intercostal nerves are in the anterior abdominal wall, that of the tenth, for example, being in the region of the umbilicus. This explains why a pain in the abdomen, which may be thought to indicate appendicitis, or some other abdominal lesion, may actually be due to pleurisy. The budding-out of the limbs rather obscures the segmental distribution of some of the nerves, but it is quite easy to map out the distribution of any spinal nerve, and when symptoms of disease affect the area of this distribution, inflammation of the nerve root or radiculitis, or of its main stem, is indicated.

In three regions spinal nerves form a plexus, or network, from which branches are supplied to various parts. Thus, there is the cervical, the brachial and the lumbosacral plexus.

### **Diseases of the Spinal Cord**

Diseases of the Spinal Cord. A severe jarring of the body may cause concussion of the spinal cord, the result of which is paralysis of the parts supplied by the affected parts of the cord. This will probably clear up, however, with complete rest. The continuity of the cord may be interrupted more or less by myelitis (q.v.), caused by pressure from disease or dislocation of the spine, tumors or hemorrhages of the spinal canal or cord, etc. In the disease known as syringomyelia (q.v.), cavities form in the gray matter interrupting the fibers conducting impulses of temperature and pain, and interfering with the nutrition of parts supplied by the affected portion of the cord.

Interruption of tracts in the cord may be caused by a hardening process in the nervous tissue described as sclerosis (q.v.). Inflammation in the gray matter is called poliomyelitis, or Infantile Paralysis (q.v.).

Spinal meningitis may be caused by extension from the meninges of the brain, as in cerebrospinal fever, or occur independently, when the cause may be a penetrating or other injury, or infection. Tuberculous infection, for example, may extend to the spinal meninges from the vertebrae, in Port's disease. Among the symptoms are pain, rigidity of the spine, paralysis and wasting of various muscles, loss of sensation, and so on. (The New Modern Home Physician, pp. 737-739)

We can see that if the spinal cord is not kept in good condition, much damage can be afflicted upon the body. In cases where the spinal cord, even though protected by the spine, has been severed, it leaves paralysis from the severed area down through the rest of the body. In cases where the spinal vertebrae has slipped and pinched the cord, paralysis would also result from this impingement.

Over the years we have worked with many damaged "backs" - some from slipped disc, hump back, curvature of the spine, broken backs, and severed spinal cords. We have seen remarkable recoveries by using the principles of wholistic procedures.

We have used various herbal aids as well as therapy. One herbal formula we have used for years, that has performed "miracles", is called "bone, flesh and cartilage." This combination of herbs has brought curvature of the spine and other types of back and bone injuries to a healed, normal condition once more.

Bone, flesh and cartilage (comfrey combination fomentation) is an aid for malfunction in bone, flesh, sinews, etc. Make a tea of the following herbs: oak bark, marshmallow root, mullein herb, wormwood, lobelia, scullcap, comfrey root, walnut bark (or leaves), gravel root. Soak the combined teas in distilled water (at the rate of one ounce of combined herbs to a pint of distilled water), then soaking four to six hours, simmer thirty minutes, strain and then simmer the liquid down to ½ its volume and add 1/4 vegetable glycerine (if desired). Example: One gallon of tea simmered (not boiled) down to two quarts and add one pint of glycerine.

Soak flannel, cotton, or any white material other than synthetics, never use synthetics. Wrap the fomentation (soaked cloth) around the malfunction area and cover with plastic to keep it from drying out. Leave it on all night, six nights a week, week after week, until relief appears.

All cases: Drink 1/4 cup of finished concentrated tea with 3/4 cup of distilled water three times a day.

By using this formula faithfully and following a proper diet week after week, the body is able to rebuild its malformed areas. There are no two people alike, some heal faster than others, so just use patience and be happy with the results.

In this combination we have oak bark. (This may be white oak, scarlet, red, black, scrub, oak inner bark from any of the *Quercus alba*, *Rubra* and *Tinctoria*, Beech Family). This herb is a powerful astringent, tonic and antiseptic. It has in it calcium, phosphorous, potassium, sodium, magnesium, manganese and copper, gallic acid, gallotannic, allagic and tannic acid, etc. This herb aids in feeding calcium into the bones, muscles, nerve sheaths, etc. It is an amazing tonic and has natural protein and fiber to assist the building process.

Marshmallow root is anti-gangrenous, an emollient and demulcent, and is an extremely nourishing food for wasted and deformed areas.

Mullein herb is a glandular herb to assist in keeping the lymph system efficient and in removing waste materials. Wormwood acts in two capacities. One is to relieve pain and the other is to act as a vermifuge to aid in eliminating worms. Lobelia is our catalyst and an accentuating herb - our great "thinking herb". Scullcap is to aid in rehabilitating the spinal cord, to clean, repair and rebuild the master trunkline. Comfrey root is a cell proliferant, causing the good cells to grow rapidly, and discarding the malfunctioning and dead ones. Comfrey is very high in the substance of allantoin, the healing and rebuilding "power". Black walnut bark is an antifungus herb - it's high in iodine, sulfur, manganese, potassium chlorine, magnesium and cellulose. These minerals are only a small part of this outstanding herb. Our final herb in this group is gravel root - one of our fine solvents. This herb aids the body to leach out and remove inorganic minerals that are slowing the healing process.

These God-given herbs are credited with the healing and rebuilding many parts of the body that have either been severed by accidents, eaten away with cancer of the bone, injured or damaged kneecaps, hip and many other joints that have deteriorated or otherwise injured or badly mashed, mangled bones. We have seen so many broken and deformed bodies rebuilt and made whole with this formula. It is very gratifying to be privileged to work in this field of teaching. I say "Teaching" because as Edison once said, "The day will come when doctors will be replaced with 'teachers'." This day is very near at hand - - Praise the Lord.

When the medulla oblongata, at the base of the skull and into the first and second vertebrae has been damaged, or has deteriorated from improper eating routine (arthritis, etc.), and in some cases because of weak inherent conditions handed down from generation to generation, we have trouble in body motion and movement. This area, when in malfunction, is the inability of the body to control itself, as it should.

This condition displays itself in many ways, as dizziness, lightheadedness, loss of control over locomotion - epilepsy, multiple sclerosis, muscular dystrophy, stroke, etc.

The "number one" part of the body that then needs help in these types of conditions is the motor nerve area, at the medulla.

We have a special formula that we first used with our epileptic patients years ago. This formula came as an answer to a prayer, when help was needed in a severe epileptic case. The formula is made up of blue cohosh, black cohosh, blue vervain, scullcap and lobelia in a regular "ninety proof" tincture form.

There are approximately three million, five hundred thousand herbs, and we do not know of any two herbs on earth that will do the job of rebuilding the motor nerve as well as do blue cohosh and black cohosh. I am glad the good Lord was kind enough to locate them for us; I could never have gone through that many herbs to locate these specific herbs for a specific job.

He also showed the use of scullcap in the formula for the use of rehabilitating and renewing the spinal cord, so it could again relay its messages from the motor nerve area to the parts of the body that required help and guidance. Lobelia is an antispasmodic, to act as a nervine and to discontinue spasms that were cutting off or slowing down the messages being sent.

These five herbs put into a formula, as they have been, have given thousands of people a new lease of life, by cleaning a fouled up message and delivery system and getting it into a smooth and natural response, instead of seizures and contortions as before.

Now is the time to consider the third section of the "message circuit program" of the human body.

After the message either to or from the brain is made and in motion, it must go through a complex nervous system of many miles of connected nerve cells. These nerve cells can become damaged by malnutrition, injuries, etc., but they can be rebuilt and renewed. It would, for our continuing education, help to learn a little about the nervous system of the human body and then learn how to reestablish or rebuild a worn out one.

The nervous system we have been studying is so very powerful and wonderful that when it is healthy, it can perform miraculous feats; but when tired, hungry and worn out, it is a pussycat turned "ferocious lion." A good example is a highly nervous person, whose nerves are worn to a ragged edge and literally screams, "Stay your distance!"

When a nerve is impinged as in a vertebrae impingement there is pain and discomfort hard to "stand" or describe. Sometimes a simple adjustment of the spine is all that is necessary, relocating the vertebrae in its normal place; or by massage or reflexology (foot therapy). Adjustments of these types can often give quick and blessed relief. But if the offending area will not stay in place, it needs, instead of just therapy, also feeding of the muscle and nerves to help them attain their relaxed state and they can readjust the impingement on their own.

We have seen this happen many times by using the bone, flesh and cartilage as was described above and through the proper feeding program.

In addition, we have used for our nervous friends, a great "nerve food". This nerve formula consists of nine efficient and life giving herbal foods.

Nerve herbal food combination. Here is a formula we have used with great success for well over thirty years and is used for relieving nerve tension and insomnia. It is mildly stimulating and yet lessens the irritability and excitement of the nervous system, and also lessens or reduces pain. This formula contains herbs that feed and revitalize the motor nerve at the base of the skull (medulla area and upper cervical), and also herbs that help rebuild or feed the spinal cord. This group of herbs will also rebuild the frayed nerve sheath, the nerve itself, and its capillaries. The following herbs in this combination are food for your valuable, and in many cases shattered, nerves; black cohosh, capsicum, hops flowers, Lady's slipper, lobelia, scullcap, valerian, wood betony and mistletoe. The suggested amount for an adult's use would be one to three cups of the tea, or two or three capsules or tablets three times in a day, taken with a cup of celery juice or steam-distilled water.

The various herbs in this formula each have their own job to do. Black cohosh is one of the herbs we mentioned before as a special aid for the motor nerve. It is astringent, diuretic, emmenagogue and alterative; it's high in fiber, cimicifugin, isofirulic acid, phosphates and other organic salts.

Capsicum, a stimulant, tonic, rubefacient; it is high in calcium, sodium, Vitamin C (ascorbic acid), niacin, riboflavin, thiamin and Vitamin A.

Hops flowers, a tonic, anodyne, diuretic. It has calcium, phosphorous, potassium, copper, trace of arsenic and also has humulene, etc.

Lady's Slipper, antispasmodic, nervine and tonic. It is high in fiber and has calcium, phosphorous, sodium, potassium, etc.

Lobelia, antispasmodic, nervine, expectorant, emetic, diaphoretic and antispasmodic. It also has potassium, calcium, and phosphorous.

We remember scullcap as the special food for our spinal cord. This herb has high fiber, calcium, phosphorous, potassium, sodium, chlorine, iron and magnesium.

Valerian is an anodyne, antispasmodic and nervine. Here we are supplied with sulfur, copper, manganese, phosphorous, calcium, potassium, magnesium, sodium, valenamic acid, tannic acid, acetic acid, and many others. This herb is almost 'pure nervine'.

Wood betony is one of the top herbs in calcium and phosphorous. It is a nervine, aromatic, astringent and alterative. It features potassium, calcium and phosphorous.

The last of this nerve herb formula is mistletoe. It is a nervine, antispasmodic, tonic and narcotic. It has calcium, phosphorous, potassium, sodium, magnesium, visine and many other trace minerals.

If you will notice, most of the nervine herbs in the formula are well supplied with calcium, phosphorous (which work well together), and these two are for the worn nerve sheath. They also have potassium, sodium, and trace minerals to rebuild worn parts.

We have seen many nervous people use this rich nerve tea and find that their nervous system has calmed down and showed a great needed change and a "better disposition." I realize that much of these promises of "Herbal Miracles" sound fantastic to unbelievable, but we are preparing documented cases which will appear in book form in the future.