

URINARY SYSTEM

THE LIVER:

Our body is so well constituted that it can survive the loss of many organs, especially those which come in pairs. For example people can go on living without one lung or kidney. They can also survive without part of the intestine or bladder, and they can live completely without the stomach or spleen. However, the liver is indispensable to life, not because it is the largest organ of the body, but because its functions are so varied. Consisting of two lobes, it is located on the right side of the upper abdomen, below the diaphragm and on top of part of the stomach (cardiac end) and the small intestine. Seen from the back, it lies under the last three dorsal vertebrae.

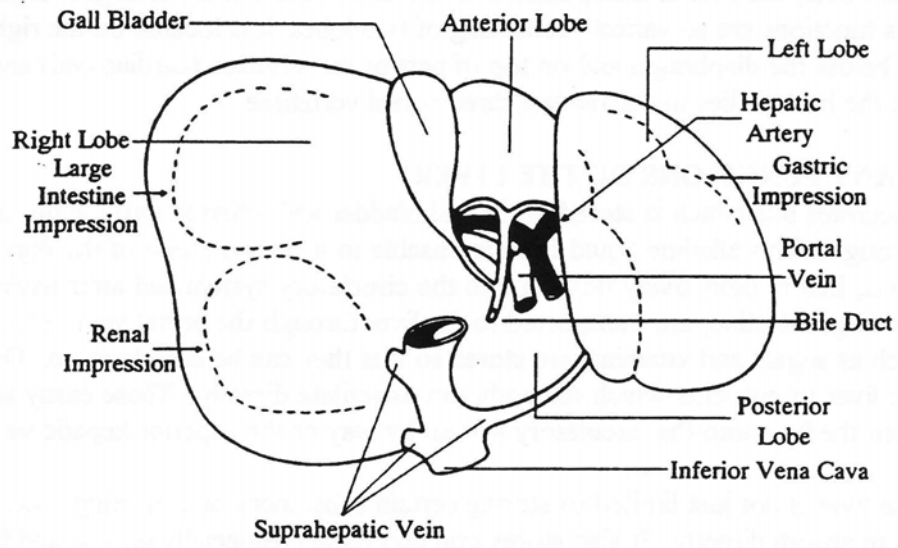
IMPORTANT FUNCTIONS OF THE LIVER

1. Liver secretes bile which is stored in the gall bladder and released into the duodenum as food passes through. This alkaline liquid is indispensable to a certain phase of the digestive process.
2. Nutrients, before definitively flowing into the circulatory system and after having been removed from the large intestine, are transported to the liver through the portal vein. Some of these nutrients, such as sugars and vitamins, are stored so that they can be used later on. Others are converted by the liver to nutrients which the body can assimilate directly. These easily absorbed nutrients pass from the liver into the circulatory system by way of the superior hepatic veins.

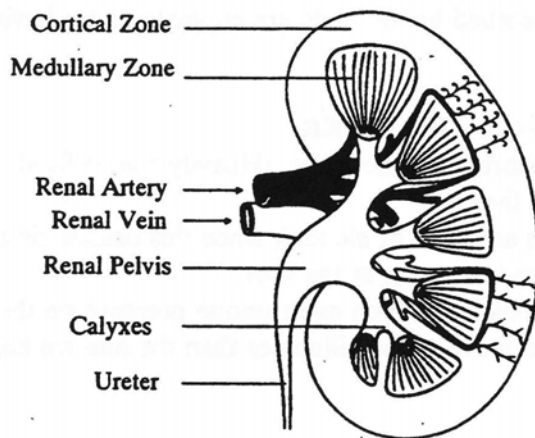
The liver is not just limited to storing certain substances or converting food into nutrients which the body can absorb directly. It also stores iron and sugars, especially lactose and fructose. Furthermore, it is involved in the enormous task of eliminating toxic wastes from the body, thus helping both the blood and lymph. For instance, the liver extracts from the bloodstream the ammonia produced in the intestines and converts it into urea. Also, it absorbs any alcohol which might be present in the blood and then converts it into less harmful substances or sends it to the gall bladder where it will be neutralized. Furthermore, many drugs absorbed by the body are eliminated after having been converted by the liver.

FACILITATING WELL-BEING OF THE LIVER

1. Eat food which can be easily absorbed by the body. (Heavily spiced food over a long period of time has a negative effect on the liver.)
2. Refrain from drinking excessive amounts of alcohol, since this causes circulatory and nervous problems as well as most cirrhosis occurring in the liver.
3. Refrain from chemical-based medicines which exert undue pressure on the liver and often cause side-effects that may lead to more serious illnesses than the one we hope to cure.



LIVER



KIDNEY

THE SPLEEN

The spleen is also an organ whose role is to keep the body as clean as possible. Located on the left side of the upper abdomen, between the stomach and the diaphragm, the spleen is a blood-filled organ weighing about 6 ounces (200 grams). From the fifth to the seventh month in the life of the fetus, it produces red corpuscles, white corpuscles and platelets. This function is then relinquished after birth to the red bone marrow. The spleen, as is true of the liver, takes an active role in defending the body against toxic or foreign substances by either absorbing them or by producing antibodies to destroy them. The spleen also has the important mission of removing abnormal, worn-out, or dead red blood cells.

It is not unusual to notice an enlargement of the spleen, especially in the case of such infectious diseases as septicemia, typhoid fever, infectious mononucleosis, and certain types of tuberculosis. Should thoracic or abdominal trauma occur, the spleen is so fragile that it can immediately rupture, causing internal bleeding. When it is necessary to remove the spleen, the liver automatically takes on its functions. This explains why it is possible to live without this organ. Of course, the best way to contribute to its proper functioning is to follow the same dietary principles as with the liver.

THE KIDNEYS

The two kidneys complement the cleansing functions of the liver and the spleen. These organs are located on either side of the spinal column, in the lumbar region. To understand their role properly, let us once more consider our daily diet which is made up of two types of chemical elements. First of all, there are the energizing substances (sugars and fats) whose combustion in the cells produces a certain vital energy and whose decomposition in water and carbon dioxide produces a constant temperature in the body. We learned that blood has the mission of bringing carbon dioxide to the lungs, where it can be expelled through the process of respiration. As for heat, this is used by the autonomic nervous system to maintain a constant temperature in the body.

Secondly, there are substances (meat, vegetables, milk, eggs) whose chemical compounds constitute the living matter of the cells in our body. These substances contain ammonia and sometimes even phosphorus and sulphur. The cells, in assimilating these substances, convert nitrogen into ammonia and any phosphorus or sulphur, when present, into salts (phosphates, sulphates). When found in excess, the ammonia or salts become toxic and harmful to the body. If a surplus were not eliminated, its continued presence in the blood would poison our body.

Such poisons are eliminated partly by the skin, digestive tract, and even the lungs, but the crucial role is played by the kidneys. Thanks to them, the body rids itself of most of the unabsorbed ammonia and various salts as well as a good part of the surplus water. These wastes take the form of urine. As surprising as it may seem, one quart (approximately one liter) of blood flowing through the kidneys is filtered every minute. These two organs can therefore filter all the blood in our body in approximately five minutes. Furthermore, only five percent of the blood entering the kidneys is retained and converted into urine. The remaining 95 percent is reabsorbed in the bloodstream. These few comments should help you realize the importance of these two organs.

The kidneys, although essentially limited to a cleansing role, also play a part in regulating the amount of water and salts which the body can absorb. When the body lacks water, we feel thirsty, a feeling triggered by a specific activity of the liver and transmitted by the autonomic nervous system

which, as you will recall, controls the body's involuntary functions. When we drink too much water, the kidneys release less into the blood and eject a greater amount through the bladder. If we live in a warm climate, or we are very active and sweat a lot, or we are experiencing fever, we should drink more water to compensate for the losses due to perspiration. It is also necessary to eat more salty foods or to take salt tablets, since perspiration causes a loss of absorbable salts that are absolutely necessary to the body.

THE IMPORTANCE OF WATER

What should we do to assist the activities of the kidneys and all other organs responsible for eliminating impurities resulting from the metabolic process? As previously mentioned, we must start by having a balanced healthy diet and by breathing properly. Apart from these two essential requirements, we need to drink enough water. Water is truly the best solvent which nature has put at our disposal in cleansing the inside of our body.

We should not forget that humans are 70 percent water in their make-up. This element is therefore absolutely essential to the organic life of our body.

Medical authorities estimate that an adult loses approximately three quarts (three liters) of water every day through urination, perspiration, and breathing. This means that a person should take in the same quantity of water each day to compensate for this loss. (Food, especially vegetables and fruits, provide approximately half that amount).

Water is essential to the cleansing of all internal organs, such as the stomach, liver spleen, kidneys, intestines, and bladder. The best time to absorb water for inner cleansing purposes is not at mealtimes. Rather, it is better to drink water in the morning upon waking up, in the evening immediately before retiring, and between meals.

An interview with Fabien Maman

The power of music at the cellular level

French composer and musician Fabien Maman has performed many of his original compositions with his quintet in the great concert halls of the world including Carnegie Hall, the Berlin Philharmonic, the Tokyo Opera and the Paris Olympia. Also a bioenergetician and martial artist, Maman became an acupuncturist in 1977 and developed a system which uses tuning forks instead of acupuncture needles to stimulate acupuncture points with specific musical frequencies.

In 1981, Maman and biologist Helene Grimal of the University of Jussieu in Paris, began an 18-month experiment that revealed the effect of sound on human healthy and cancerous (Hela) cells. They experimented with a variety of instruments including acoustic guitar, voice, xylophone, gong, vibraphone, double bass, tuning forks, and ultrasound. In the experiments, a sound was produced intermittently at a distance of 30 centimeters from the cells at an amplitude of 30-40 decibels. Using both a camera mounted on a microscope and Kirlian photography, photographs of the cells were taken at one minute intervals over a duration of 21 minutes. Maman and Grimal published their studies in several French journals including The Osteopathic Journal and The Medical National Review. Their fascinating findings are discussed in this exclusive Harp Therapy Journal interview which was conducted at the 1997 International Sound Colloquium in Loveland, Colorado.



Fabien Maman

love) appears more frequently in the electromagnetic field with softer sounds, and most prominently when the frequency A440 is played. That pitch corresponds to the vibration of the electron.

When natural acoustic instruments are played, their sound resonates with the corresponding element and organ in the body. Stringed instruments, for example, correspond to the energy of the heart, small intestine, pericardium, and Triple Warmer meridians. The fundamental note played on an acoustic instrument nurtures the physical body, while the overtones resonate in the subtle bodies.

How does sound enter and affect the body?

"The molecular structure of the physical body is enveloped by at least six subtler energy bodies. Because these subtle bodies are composed of progressively finer and higher frequencies of subtle matter, they can interpenetrate each other and the physical body. They nurture the physical body and act as receptors and filters of information coming to us — so any vibration must first pass through one or more of the subtle envelopes. Once a specific frequency enters a subtle energy body it might resonate with it and produce an immediate response — like an emotion, inspiration, energy or a creative idea.

What are the effects of sound on human cellular tissue?

"Healthy cells are flexible and are stimulated by sound. Similar to a pressure valve, sound travels from the center of the cell outward through the periphery and can accelerate the process of cellular enlargement. As sound moves outward towards the rigid boundary of a cancer cell, the outer cytoplasm ruptures and the cancer cell explodes. In our experiments, we were able to destroy cancer cells within 14 minutes by exposing the cells to a progressive accumulation of frequencies — especially dissonant frequencies. The combination of the human voice and musical scale caused cancer cells to explode more rapidly and predictably.

How does the timbre of an instrument affect the body's response to sound?

"The color of the electromagnetic field of the body relates to the frequency, while the shape corresponds to the quality or spectral envelope of the sound. For instance, when using Kirlian photography, the electromagnetic fields of cells have a very different quality and shape when exposed to the sound of an acoustic guitar in comparison to the sound of a vibraphone. The healing pink color (the color of

How is the harp unique in its effect?

"The full amplitude from the big strings of the harp vibrates through the wood and the listener. It's a very feminine instrument and touches the heart. In China, strings are called "silk of the heart" (like heart strings). Healing occurs when you open the heart and solar plexus and allow the fire energy to flow — an alchemical process takes place. Other stringed instruments are more directional and restricted in their range. The plucked harp strings spread the sound — it surrounds the listener.

Continued next page

Maman, from page 6

What is the effect of electronic versus acoustic sound on the body?

"The pure sound of acoustic instruments resonates with the human body because these instruments are made of the same elements found in nature. Electronic music is often used in meditative work and works well for stilling mental activity — but is missing chi energy. Electronic sounds lose almost 50% of the natural harmonics that are present in acoustic sound and are important to the subtle energy bodies. There's a big difference between feeling the music and music that's healing.

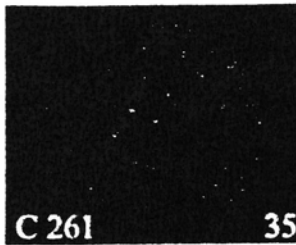
How does "hands-on" healing differ from playing an instrument with an intent to heal?

"The rate of vibration is different with an instrument — it vibrates at a lower frequency. The hands vibrate at a higher frequency — and those high frequencies can be transmitted through the harp because the hands are directly on the strings. Those higher frequencies can be sent if the harpist is highly attuned. You can open and enter the energy field with music, then the body absorbs what it needs.

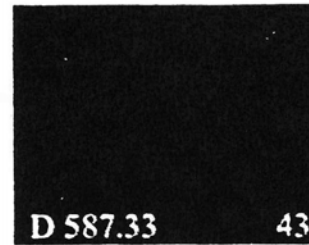
Specific tones may provide relief from old traumas but often a combination of therapies are needed to effect a permanent change. I suggest combining sound, color, energetic movements and talk therapy to reinforce healing on all levels.

What types of music do you suggest harpists use when working with patients?

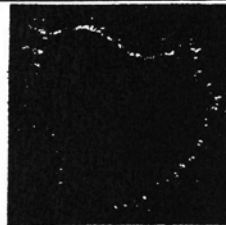
"I recommend checking the tonality first — based on the modes and the season of the year (as explained in my book). Play soft Greek modes — when you stay inside a mode, you have more control with improvisation. Greek modes resonate with the endocrine glands, the chakra system and the eight extra-ordinary acupuncture meridians. As the session progresses, play more penetrating music and keep the bass



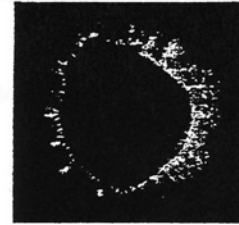
Cancer cell exposed to C 261, 1st note of Ionian scale on xylophone



Same HeLa cell exposed to D 587.33, 9th frequency — 14 minutes later



Kirlian photo of a HeLa cell without sound — cellular mass is inside border

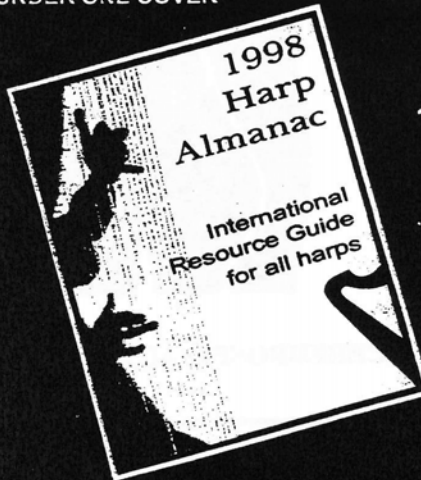


HeLa cell 20 seconds after exposure to A 440 from tuning fork

pattern the same — using 4ths and 5ths. Observe the patient's breathing pattern as you change from major to minor modes and move up and down the scale — the pattern of breathing changes as integration occurs. Sound needs to be directed to the sacrum and through the spine — to feed all the meridians. ♪

For further information about the work of Fabien Maman including: CDs; audio and video cassettes; books; and workshops; call Christina Ross at (310) 257-9047. Maman will be featured at The 1998 International Sound Colloquium in Loveland, Colorado.

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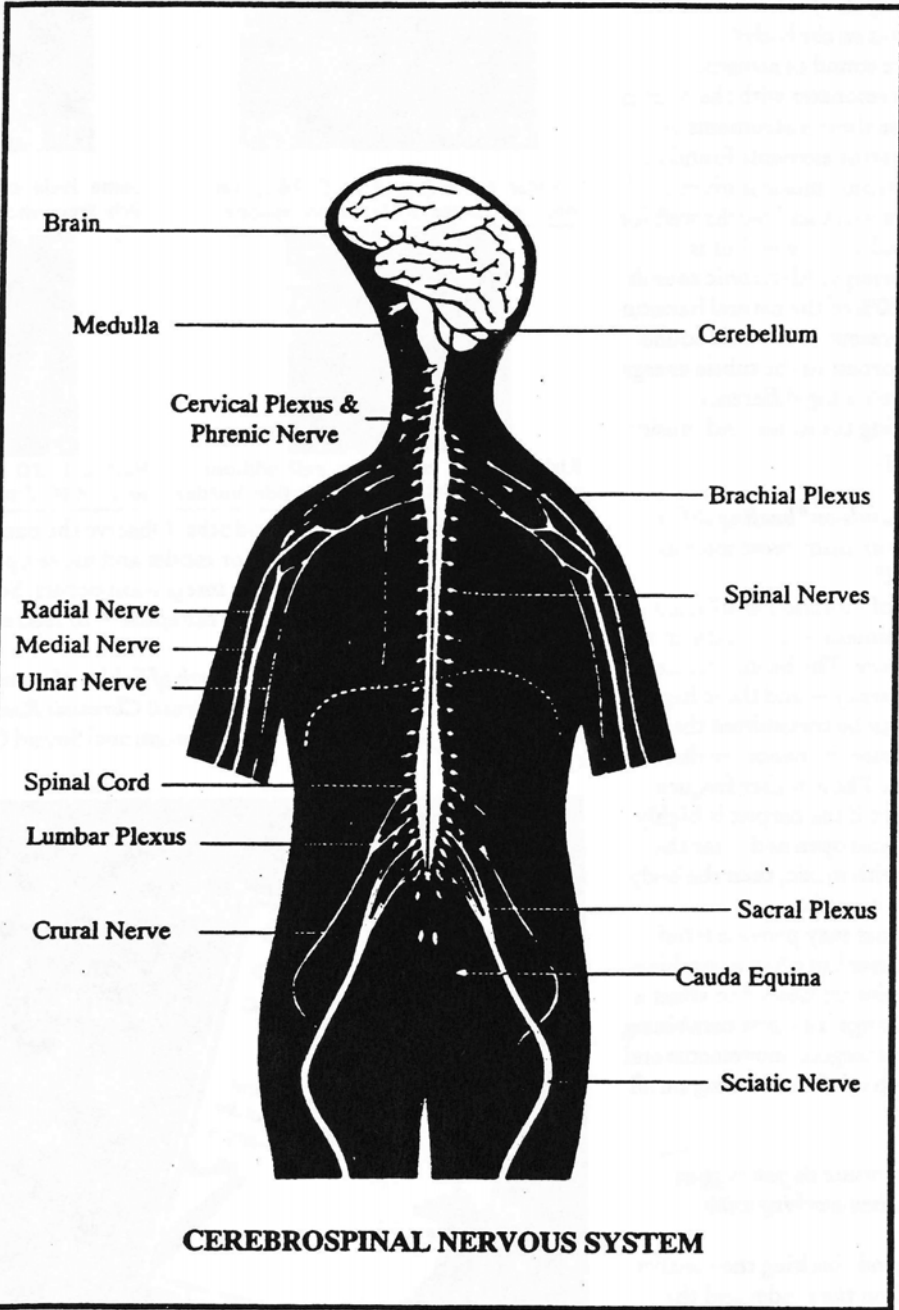
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THE CEREBROSPINAL NERVOUS SYSTEM

The role of this nervous system primarily concerns the functions of the physical body, as it is responsible for executing all the voluntary actions of the body. On the anatomical and functional levels, we can say that the cerebrospinal nervous system is in fact composed of two systems: the *central nervous system*, which includes the encephalon (brain, cerebellum, and medulla) and the spinal cord; and the *peripheral nervous system*, composed of 12 pairs of cranial nerves and 31 pairs of spinal nerves. The cranial nerves emerge in the diencephalon and mainly concern the head and surrounding areas. The spinal nerves connect the spinal cord to all parts of the body.

The brain is the control center of the cerebrospinal nervous system. Located in the head and protected against injuries by the skull, this organ is regarded by most scientists to be the seat of consciousness and thinking. For those of Esoteric studies, they consider it to be only the transformer of certain subtle vibrations which, after having been subjected to various cerebral mechanisms, engender what are called "conscious thoughts." To be more precise, the mystery schools have always stated that the brain is the seat of the various faculties manifested by the objective mind, but that it is absolutely not the center of human consciousness as a whole. The fact that a human being can continue to live in a more or less vegetative state, as is true in certain forms of coma, while being deprived of cerebral consciousness attests to the validity of these teachings.

We still know very little concerning the exact functioning of the brain. We do know that the brain consists of two hemispheres and that the right hemisphere controls the voluntary actions of the left side of the body, while the left hemisphere controls those of the right side. Generally speaking, specific types of activity are centered in various parts of the brain. Thus, there is an area responsible for motor activity, one for general sensitivity, another for purely mental activity, along with specific areas for memory, language, writing, vision, taste, hearing, and smell, etc. When one of these areas suffers from trauma, problems arise in the activities which it regulates. Thus, a violent injury to the head can cause partial or total paralysis, temporary or permanent blindness or deafness, loss of memory, etc.

We also know that the cells of the brain cannot reproduce themselves and therefore remain the same from birth to death. This means that if some of them are damaged or destroyed, the damage or loss is permanent. Furthermore, compared to other cells in the body, brain cells require the greatest quantity of oxygen. This once more underscores the importance of breathing properly and of breathing air that is as pure as possible.

There exists an area in the brain about which little is still known: the *hypothalamus*. This area is the control center of the autonomic nervous system. It is directly linked to the pituitary and pineal glands which are themselves sympathetically linked to all the other psychic centers of the body.

The spinal cord is also an integral part of the spinal nervous system. Emerging from the diencephalon, it appears as a cord going through the center of each vertebra. It varies in length from 17 to 18 inches (45 to 50 cm) and it is protected against blows or trauma by the cerebrospinal fluid. On either side of the cord exit the 31 pairs of spinal nerves mentioned earlier. They extend throughout the body and sometimes combine to form nerve plexuses by themselves or are linked to an organ. All these nerves are made of two fibers or roots: the *sensory* (afferent) and the *motor* (efferent). The motor fiber carries the nerve impulses from the brain to the muscles, providing them with the motor energy necessary for movements of contraction and relaxation. Conversely, the sensory fiber carries to the brain

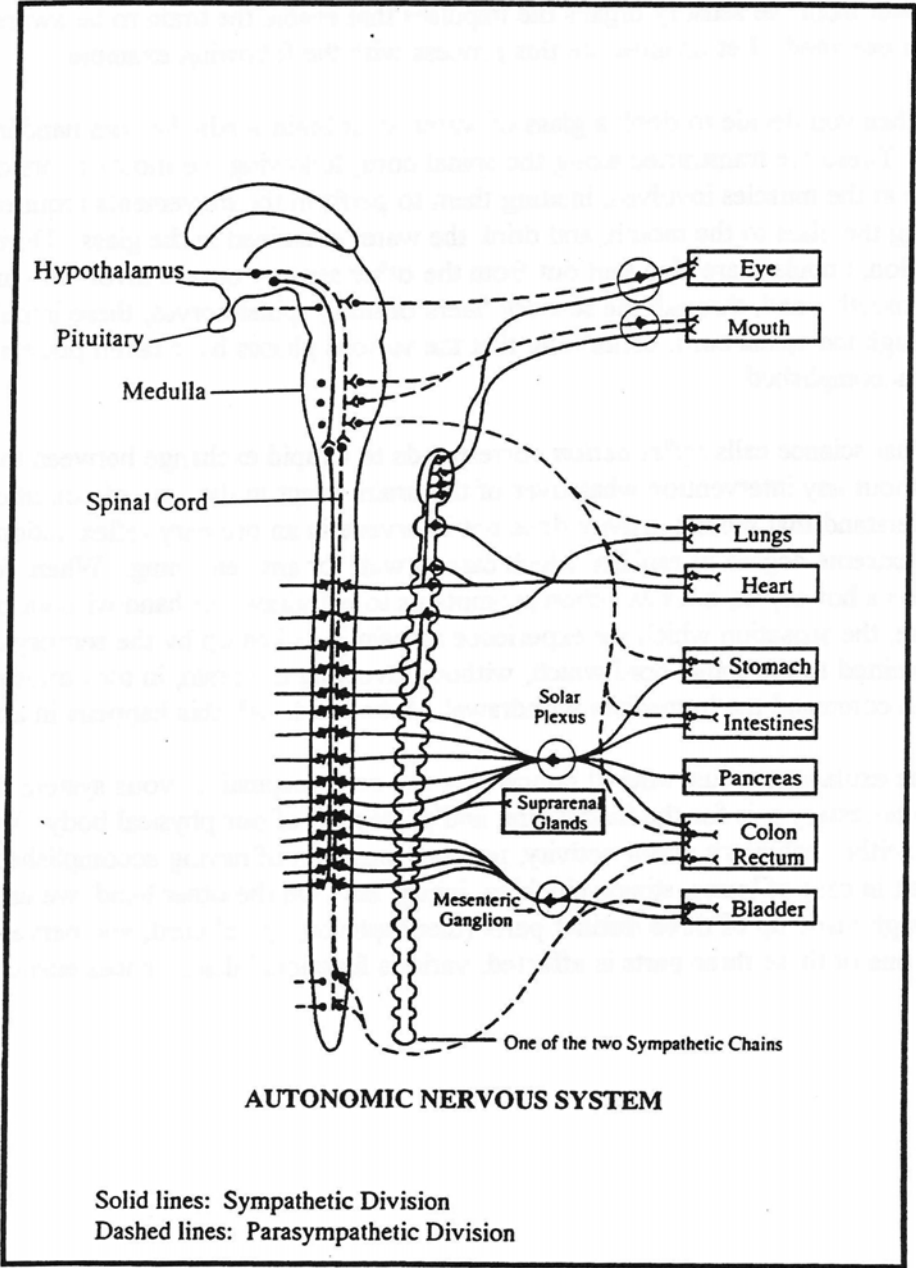
the sensory energy transmitted by the senses (the eyes, ears, nose, tongue, and skin), enabling the brain to become aware that the action it commanded has taken place.

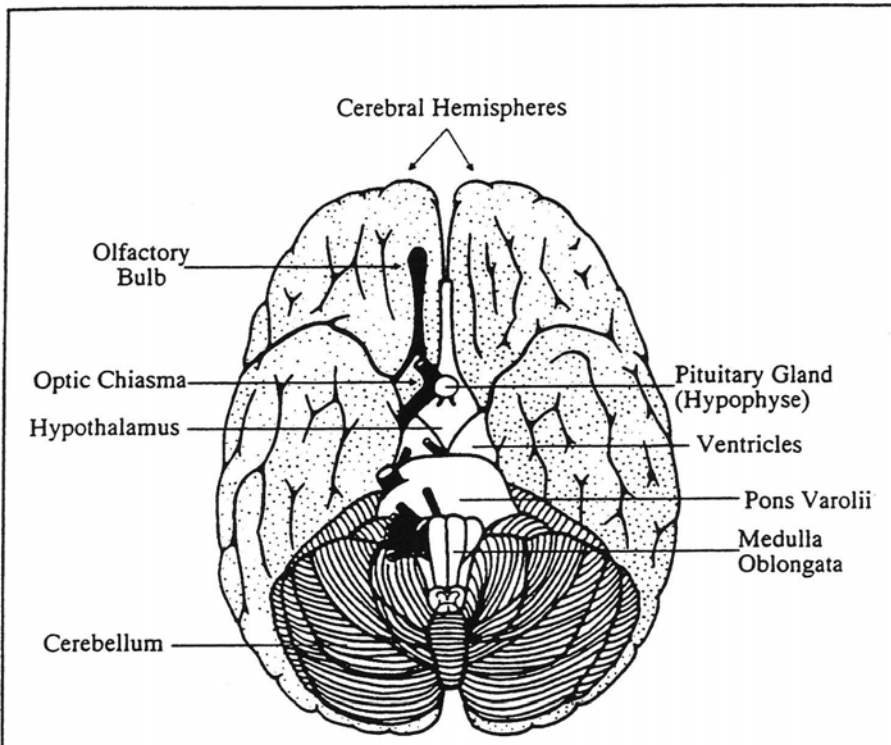
What are the functions of the spinal cord and the spinal nerves? Their role is to transmit to the muscles the motor impulses necessary for the accomplishment of actions decided upon by the brain and to retransmit from the sensory organs the impulses that enable the brain to be aware of what actions have been executed. Let us illustrate this process with the following example.

When you decide to drink a glass of water, your brain sends the command in the form of nerve impulses. These are transmitted along the spinal cord, following the motor fibers of many spinal nerves and arrive at the muscles involved, inciting them to perform the movements required to pick up the glass, bring the glass to the mouth, and drink the water contained in the glass. During the various phases of this action, impulses are also sent out from the other sensory organs involved - in this case the eyes, skin, and mouth - and, through the sensory fibers of many spinal nerves, these impulses return to the brain through the spinal cord, confirming that the various phases have taken place and that the action has been accomplished.

What science calls *reflex action* corresponds to a rapid exchange between the sensory and motor fibers, without any intervention whatsoever of the brain, except in the case of conditioned reflexes. We can easily understand that mental activity does not intervene in an ordinary reflex action because this requires an extreme degree of rapidity which cannot wait for any reasoning. When, for example, we place our hand on a hot object, a reflex action prompts us to withdraw our hand without our thinking about it. In this case, the sensation which we experience as pain is picked up by the sensory cells of the skin and then transmitted to the spinal cord which, without involving the brain, in turn transmits it to the motor cells which command the immediate withdrawal of the hand. All this happens in a fraction of a second.

The explanations just offered concerning the cerebrospinal nervous system demonstrate how absolutely necessary it is for the functioning and protection of our physical body. Without it, there would be neither voluntary motor activity, nor any sensation of having accomplished this activity, nor of the pain felt in case of burns, stings, pinching, injury, etc. On the other hand, we can see that this system, although made up of three distinct parts (diencephalon, spinal cord, and nerves), forms a whole. Indeed, if one of these three parts is affected, various functional disturbances ensue.





THE BRAIN

On various occasions we have referred to the important role played by the hypothalamus in the activities of the autonomic nervous system. In fact, as previously explained, the hypothalamus acts as this system's control center and it works in close conjunction with the pituitary (hypophysis) and pineal glands. The diagram above indicates the precise location of the hypothalamus in the brain and how it is obviously linked with the pituitary gland. The fact that the autonomic brain is included in the cerebrospinal brain clearly demonstrates that these two systems are closely associated in the work they accomplish for the human body.

11 few excerpts
From:
Love Your Body.

Affirmations for a
Healthy Body
by Louise Hay

"Little babies love every inch of their bodies. They have no guilt, no shame, and no comparison. You were like that, and then somewhere along the line you listened to others who told you that you were "not good enough." you began to criticize your body thinking perhaps that's where your flaws were.

Let's drop all that nonsense and get back to loving our bodies and accepting them totally as they are. Of course they will change - and if we give our bodies love, they will change for the better.

That which we constantly affirm becomes true for us. "

I Love my mind - my mind enables me to recognize the beautiful miracle of my body. I am glad to be alive. I affirm with my mind that I have the power to heal myself. My mind chooses the thoughts that create my future moment by moment. My power comes through the use of my mind.

I Love my Eyes - I have perfect vision. I see clearly in every direction. I see with love my past, my present, and my future. My mind chooses the way I look at life. I see with new eyes. I see good in everyone and everywhere. I now lovingly create the life I love to look at.

I Love my Ears - I am balanced and poised and one with all of life. I choose the thoughts that create harmony around me. I listen with love to the good and the pleasant. I hear the cry for love that is hidden in everyone's message. I am willing to understand others, and I have compassion for them. I rejoice in my ability to hear life. I have a receptive capacity of mind. I am willing to

I Love my Nose - I am at peace with everyone around me. No person, place, or thing has any power over me. I am the power and authority in my world. I choose the thoughts that recognize my own true worth. I recognize my own intuitive ability. I trust my intuition for I am always in contact with Universal Wisdom and Truth. I always go in the right direction for me.

I Love my Mouth - I nourish myself by taking in new ideas. I prepare new concepts for digestion and assimilation. I make decisions with ease based upon the principles of Truth. I have a good taste for life. I choose the thoughts that enable me to speak with love. I speak up for myself secure in my own true worth.

I Love my Voice - I voice my opinions. I speak up for myself. I sing the praises of love and joy. My words are the music of life. I choose the thoughts that express beauty and gratitude. I proclaim my oneness ^{all of it}

I Love my Back - I am supported by life itself. I feel emotionally supported. I release all fears. I feel loved. I release the past and all past experiences. I let go of that which is in back of me. I now trust the process of life. I choose the thoughts that supply all of my needs. Life prospers me in expected and unexpected ways. I know that life is for me. I stand straight and tall supported by the love of life.