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Neural Therapy

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Neural Therapy has been widely used in Europe and South America since the 1940's, but was only recently introduced into North America. Originating in Germany it has been effective in treating a variety of health conditions, especially that of chronic pain. Initially, neural therapy involved the injection of anesthetics into nerve sites, acupuncture points, scars and other tissues to relieve pain elsewhere in the body. Similar non-injection techniques, which include electrical current, laser and other light devices are now used.

Neural Therapy (NT) is a treatment system for chronic pain and illness using injection of local anesthetics into autonomic ganglia, peripheral nerves, scars, glands, and trigger points. It is believed to act through normalizing the function of the nervous system.

Neural Therapy as a comprehensive healing system is virtually unknown to most practitioners in North America; however, in German speaking countries it is a widely used modality for the treatment of acute and chronic pain including:

- Migraine and headache
- Back and neck pain
- Post traumatic conditions
- Muscle pain
- Joint pain
- Chronic pain from whiplash and head injury
- Sinusitis
- Tonsillitis
- ADHD and lack of cognitive function
- Hormone conditions including thyroid, ovarian and adrenal hormones
- Jaw pain
- Post surgical pain (including dentistry)
- Organ dysfunction
- Digestive disturbances
- Athletic injuries

The Nervous System Theory

In most cases of chronic illness that there are associated changes in the autonomic nervous system with changes in the membrane potentials of ganglia (the origin points of sensory nerves) and nerve fibers leading to changes in conductivity (1,2,3,4,5). This dysfunction can spread to neighboring ganglia and affect both sensory and motor fibers. Abnormal signals can overwhelm the gate mechanism in the spinal cord (6) which can have an effect up and down the spinal cord (7). The effect is a state of electrical chaos at the spinal cord level with failing control and selection mechanisms. Abnormal neuronal signals flood the brain, leading to disturbances in the central and autonomic nervous systems, and the hormonal system. These central changes, in turn, facilitate the continuation of the original changes in the periphery, and a vicious cycle is created (1).

NT attempts to break this cycle. The first step in Neural Therapy is to find the primary lesion, the structure that gave the original abnormal signal into the autonomic nervous system. This structure is referred to as the focus. Frequently, the focus is a site of injury, perhaps a scar or a subclinical illness such as an undetected tooth abscess. Any acute illness can leave the affected organ as an active focus in spite of apparent recovery (1). For example, an acute upper respiratory tract infection can leave the sinuses as a long-lasting focus creating chronic illness in the affected person. A sinus focus is frequently responsible for such varied symptoms as chronic severe neck pain, migraine headaches, chronic fatigue, and PMS.



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The Fascial Continuity Theory

It has been shown that the fascia (connective tissue) surrounding each muscle and dividing certain muscle groups in the body is all interconnected and continuous (15) and can be considered as one organ. For example, there is continuity between the fascia of the foot and the lining of the brain. Any adhesion or scar can affect the fascia by creating tension in it. Tension lines will form along the fascial system exerting disconfiguration distant from the scar or adhesion. An analogy often used is that of a bedsheet laid out perfectly flat. If one lifts up the bedsheet with two fingers just an inch or so, there will be wrinkles running to the periphery of the sheet. It is easy to understand, therefore, how the scar from an appendectomy can tug on the fascia of the abdominal muscles which are continuous with the muscles of the back and the ligaments of the sacroiliac joints. The scar can therefore lead to displacement of the sacroiliac joint.

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The Ground-System Theory

This theory is favored by most neural therapists today, even though it is still generally poorly understood. It refers to a new view in understanding the extracellular space (17,18). Like the fascia, the extracellular space is interconnected throughout the body. It is composed at the microscopic level of the cells called fibroblasts, autonomic nerve endings, capillaries and lymph channels, as well as the fluid which fills the extracellular space, which is created by the fibroblasts: glycoproteins and proteoglycans. This ground system has certain chemical and physical properties: electric conductivity, ionic and osmotic properties.

Changes can occur suddenly and simultaneously in the entire ground system, which affects in the entire body. These effects can only be explained through physics using the model of a liquid crystal matrix. Liquid crystal can exist in different phases with different characteristics. A plate of liquid crystal which can exist in one phase where it appears to be blue and another here it is red, the color being determined by its electrical state. This plate can be one inch long or one mile long. If the experimenter now changes the electrical charge on just one of the millions of liquid crystals belonging to the matrix — given the right circumstances — all the liquid crystals in the same matrix will change their electrical state instantly and simultaneously, and the entire matrix that was red before appears now to be blue.

The proteoglycans and glycoproteins of the extracellular space have been shown to behave exactly like a liquid crystal. Manipulation of a small part of the system can have a dramatic effect on the entire ground system by changing the above-mentioned properties. If one looks at illness or chronic pain (for example, chronic chest pain through spasms of the coronary arteries) as one possible phase of the system, and appropriate manipulation of the system performed by the physician (for example, extracting a wisdom tooth which is known in Neural Therapy to frequently cause heart problems (18,19), a phase change in the system can occur at the very moment of the tooth extraction and the chest pain disappears permanently.



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The Lymphatic System Theory

Experiments in the early 1970s have shown that the injection of novocaine into a lymph node or a lymphatic channel can lead to dramatic widening of the lymphatic channel and dramatically increased the speed of transportation of lymph fluid through that channel. The lymphatic system can be in chronic spasm in certain areas of the body, not allowing transportation through its canals and this can persist for long periods. After injecting a local anesthetic into the affected lymph node, the lymphatic system often instantly resumes normal activity.

An injection of local anesthetic into the tonsil tissue frequently can relieve chronic migraine headaches (1,10,19,20,21) and the results are often lasting. One could imagine that blockage in the lymphatic system had existed that was responsible for the migraine (through accumulation of toxins within the brain or the membranes of the brain). By restoring normal lymphatic drainage, the brain is detoxified and the headache disappears.

History of Neural Therapy

In 1893 Sigmund Freud discovers anesthetic effect of topical cocaine and recognizes its therapeutic possibilities. In 1890 C.L. Schleich performs the first surgery performed using infiltration anesthesia with 0.1% cocaine solution. In 1903 Cathelin gives the first caudal epidural injection with cocaine solution. In 1905 Einhorn discovers novocaine. In 1906 G. Spiess discovers that wound-healing is greatly improved after regional infiltration with novocaine. In 1925 R. Leriche gives the first stellate ganglion block with novocaine. In 1926 an accidental intravenous injection of novocaine by Ferdinand Huneke successfully treated a patient's chronic migraine headache which had been until then intractable. In 1940 Ferdinand Huneke injected an itchy osteomyelitis scar on a patient's lower leg with procaine which cleared her chronic intractable severely painful shoulder at the moment of the injection. This was the first observed and documented Huneke phenomenon or lightning reaction (1,3,4,19,22).

In 1940 Hubert Siegen performed animal experiments to study allergic phenomena. Two animal species were used: species A (i.e. chicken) and species B (i.e. rabbit). He took a small amount of blood from species A and injected it intracutaneously into species B. Several weeks after the first injection he would inject blood from species A intravenously into species B and the animal would die from an acute allergic reaction (Schwartzmann-Sanarelli phenomenon). If he would inject novocaine subcutaneously at the site of the first inoculation at any given time between the first intracutaneous injection and the second intravenous injection, the animal would not have any allergic reaction from the second injection whatsoever. This experiment proves the point that allergic reactions do not only depend on the presence of antibodies but also largely depend on the tissue memory. By anesthetizing the very tissue that holds the memory of the first exposure to the allergen, the antibodies which are present in the blood stream can no longer over-react to repeated injection of the allergen.

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