

# **Your New Best Friend: The CranioSacral System**

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Just about everybody has heard of the Central Nervous System (CNS), and for good reason: Controlling every body system, function, and activity, right down to the cellular level, the Central Nervous System is arguably the body's most important system. However, most people have not heard of the CranioSacral System (CSS). This is unfortunate because the CSS maintains and protects the CNS and, equally importantly, the CranioSacral System makes it possible for therapists to optimize the CNS. Therefore, the condition and functioning of the CSS is vital to our health and wellbeing.

## **Components**

Many CSS structures protect and maintain the CNS. For example, the membranes lining the inside of the skull and spine provide a sealed, impermeable, slightly pressurized container for the cerebral spinal fluid. This sealed container prevents pathogens from reaching the CNS. Another membrane system in the center of the head holds the skull together and collects and drain the venous blood from the cranium. The CSS also includes the critical blood-brain-barriers (the choroid plexi in the third and fourth ventricles) that manufacture the ultra-sterile cerebrospinal fluid (CSF) from arterial blood. After delivering oxygen, nutrients, neurotransmitters, immune cells, and energy to the brain, the CSF removes carbon dioxide, metabolic wastes, and dead brain cells, delivering them to the arachnoid villae. Located in the innermost of the three CSS membranes lining the skull, these one-way filters prevent toxins from building up in the CNS. By selectively passing monocytic and neutrophilic immune cells, the CSS makes it possible to fight infections and pathogens inside the CNS, repair damage, and replace injured or dead brain cells with healthy new ones. Finally, CSF is able to chelate toxins, pharmaceutical residues, and heavy metals from the CNS.

## **The Cranial Rhythm**

The CSS has a characteristic movement called the Cranial Rhythm. Cerebrospinal Fluid is created in pulses or cycles, typically, about 8 to 12 cycles per minute. Reabsorption goes on continuously, at about half the rate of production—so that, in the course of a complete cycle, the volume of CSF produced and reabsorbed balances out.

Fluids do not like to be compressed and neither do brain cells. To avoid compressing the brain during the production phase, the cranial bones need to be able to move apart to accommodate increasing CSF volumes. Normally, these movements are synchronized and choreographed. However, when restrictions impair any of these movements, the entire system gets thrown off, and symptoms are likely to arise. CSF also prevents the brain from being compressed by gravity by

providing buoyancy. Indeed, on average brains weigh about 1350 grams, but buoyed by CSF, their effective weight is a mere 40 grams. Were it not for floating on a virtual sea of CSF, the brain would be crushed by its own weight, much like a beached whale.

At any given time, the CNS includes about 130-150 ml (about ½ cup) of CSF. In the course of a day, the choroid plexi produce about 500 ml—slightly more than a pint—of CSF, meaning that the CSF is completely replaced about 3.5 times a day. Between the ages of 40 and 60, however, the rate of CSF production and exchange diminishes by about 50%. Regular CranioSacral Therapy may reduce or forestall this drop-off in CSF production and some of the related degenerative conditions currently attributed to “aging”.

Stretch receptors across the sagittal suture between the left and right parietal bones help control the production/reabsorption cycles. During the production half of the cycle, the left and right parietal bones move apart at the suture until the stretch receptors signal the choroid plexi to stop production. As reabsorption continues and CSF volume falls, the parietals move towards each other. When the parietals approximate sufficiently, the receptors signal the choroid plexi to resume production. In the course of a day, the average person will have about 10,000 cycles. Although strongest in the head, the cranial rhythm can be felt everywhere in the body, making it a useful tool for finding and then releasing restrictions wherever they occur.

Throughout the day, the cranial rhythm spontaneously stops on its own accord to allow our bodies to switch out of operation mode into maintenance and repair. At such times, the body becomes visibly and palpably still. These still points can also be induced. Whenever significant healing occurs during bodywork, the cranial rhythm will usually be stopped. This “still point” clues the therapist that something significant is happening.

## **CranioSacral Therapy**

A CranioSacral Therapist’s job is to optimize the CranioSacral System, by finding and releasing restrictions within and outside the Central Nervous System and enhancing the production and circulation of cerebrospinal fluid. CranioSacral Therapy provides direct access to the entire body, but especially the CranioSacral and Central Nervous Systems, and their substructures, allowing us to optimize both as well as many of the body’s other systems, like the circulatory, immune, endocrine, digestive, respiratory, and musculoskeletal systems.

These restrictions may have been caused by infection or by physical, chemical, thermal, surgical, electrical, or emotional trauma. But wherever they are, and regardless of cause, these restrictions underlie many medical problems. Finding and releasing the restrictions allows the body to return to health. Anomalies in the cranial rhythm and motions of the cranial bones make it possible to find and release these restrictions, often years before symptoms arise. So whether your goal is to

regain, maintain, or optimize your health, CranioSacral Therapy is a great choice. This extremely gentle therapy unleashes and supports--rather than undercuts-- the body's innate ability to heal. The bottom line: If you make your CranioSacral System the new best friend that it always has been, it will take care of you.

After becoming intrigued by the sutures between the cranial bones, William Sutherland, an American osteopathic physician, discovered the CranioSacral System in 1911, but because of prevailing medical dogma, it remained largely unknown in the US and Britain until the 1980s when a team of researchers at Michigan State University led by Dr. John Upledger, D.O., confirmed it's existence and described how it works. In the past thirty years, nearly 100,000 physicians, chiropractors, physical therapists, and massage therapists around the world have embraced CranioSacral Therapy. You can find a practitioner near you at [www.iahp.com](http://www.iahp.com).

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