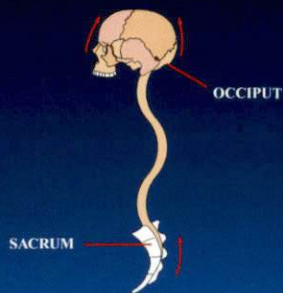


## EXHALATION

On exhalation the occiput and sacrum move upwards lengthening the cord and pushing C.S.F. downwards.

### SACRAL - OCCIPITAL PUMP ON EXHALATION



This sacro-occipital pump provides the mechanism for C.S.F. circulation around the brain and throughout the nervous system. This function is dependent on a stable balanced cranium, spine and pelvis.

## CRANIAL DISTORTIONS

Cranial distortions occur when the body is subjected to stresses to which it cannot adapt. Stresses in the form of:

- \* physical - birth trauma, sports injuries, motor accidents
- \* chemical - food additives, drugs, amalgams, food intolerances
- \* environmental pollution
- \* emotional stresses

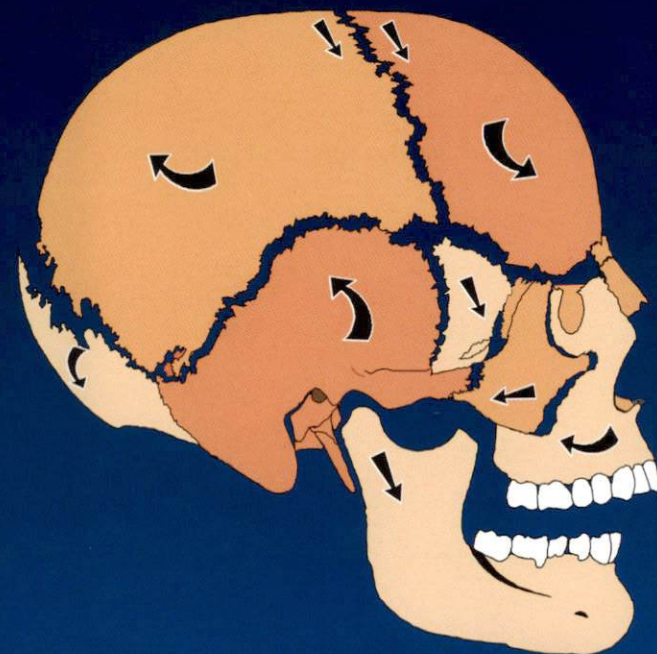
These can cause pelvic and spinal distortions and these imbalances create a tightening of the muscles on the outer surface of the cranium and tension on the membranes inside the cranial vault.

The cranium distorts accordingly and the cranial bones move out of alignment pulling on the brain, twisting the spine and imbalancing the sacro-occipital pump mechanism. This interferes with free C.S.F. flow, creates toxicity, affects nutrition and impedes essential nerve energy conduction to all parts of the body.

## CORRECTION OF CRANIAL DISTORTIONS

Chiropractors who specialise in Sacro Occipital Technique pay particular attention to creating optimum function between the pelvis, spine and cranium. The precise analysis and gentle corrections used by your Chiropractor can remove many of the effects of cranial stress and distortions and help restore the brain and the nervous system to its normal function.

## CRANIAL MOTION



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## CRANIAL MOTION

### WHAT IS CRANIOPATHY?

Craniopathy is a specialist field in Chiropractic which deals with the micro motion of the cranial vault (skull), its distortions and ultimately the effect it has on normal cerebro-spinal fluid flow and the nervous system. This science has been developed through study, research and clinical application over the last fifty years by Dr. M.B. DeJarnette.

### THE CENTRAL NERVOUS SYSTEM

The brain and spinal cord form the central nervous system of the body co-ordinating all tissues organs and systems within the body.

### CEREBRO-SPINAL FLUID (C.S.F.)

A sac-like membrane called the dural membrane covers the brain and spinal cord and contains C.S.F. in which the brain and spinal cord are immersed. The C.S.F. acts as a cushion, protecting this delicate mechanism, transports nutrition, removes waste products and provides an ideal medium for essential nerve energy conduction.

### THE CRANIAL VAULT

The brain represents 80% of the central nervous system and is contained and protected by the skull (Cranium). The cranial vault is made up of eight cranial bones joined together at sutures (tongue and groove joints) which allows for cranial micro motion.

### DURAL MEMBRANE

Within the cranial vault are anchor points for the dural membrane which separates the brain into quadrants and support the entire mechanism. These tension membranes act rather like guy ropes on a tent and prevent the brain from twisting or being compressed when the position of the head changes.

### C.S.F. FLOW

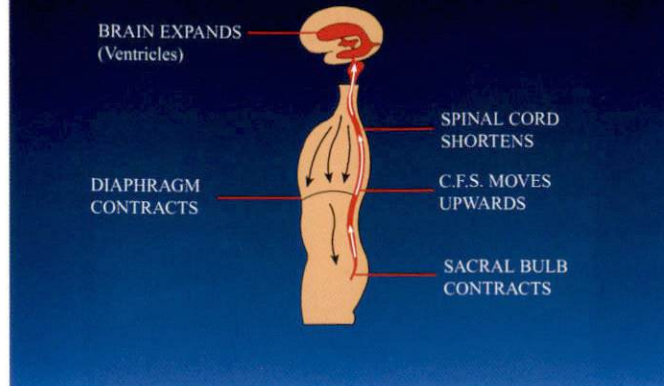
A very special function takes place in the human body that is absolutely essential to good health. It is the circulation throughout the nervous system of C.S.F.

C.S.F. is created in four compartments (ventricles) in the brain and is supplied to the nervous system through the gentle pulsing action created by breathing and cardio vascular function.

### INHALATION

On inhalation the diaphragm contracts forcing the abdominal organs into the pelvic floor and flattening the lumbar spine and shortening the spinal cord. This compresses the sacral bulb forcing C.S.F. up the cord to the brain which in turn expands. On inhalation the compartments producing C.S.F. (ventricles) fill up (see diagram).

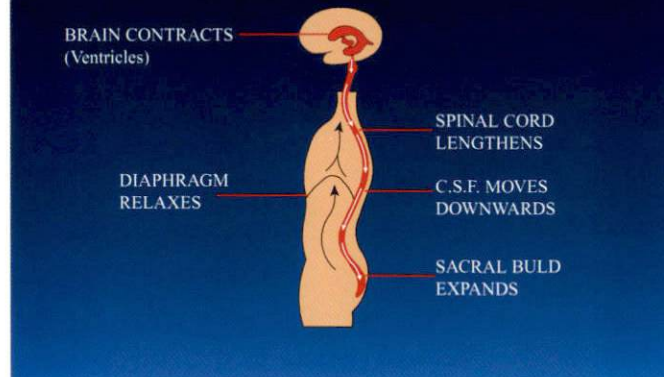
### FUNCTION OF DIAPHRAGM ON INHALATION



### EXHALATION

On exhalation the brain contracts forcing C.S.F. down the spinal cord. The diaphragm relaxes allowing the abdominal organs to move out of the pelvic floor to their normal position, lengthening the spinal cord and expanding the sacral bulb. (see diagram).

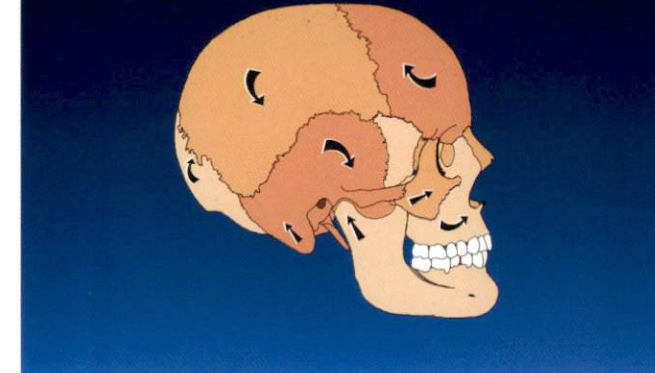
### FUNCTION OF DIAPHRAGM ON EXHALATION



### CRANIAL MOTION

In order to allow the brain to expand and contract the cranial vault has to comply accordingly. Thus on inhalation the cranium expands as is seen on the front of this pamphlet. The sutures separate and allow the brain to expand. On exhalation the brain contracts and the sutures close. (see diagram ). This is micro motion of the cranium.

### CRANIAL MOTION ON EXHALATION



### SACRO-OCCIPITAL PUMP

The dural membrane (the tension membranes) not only anchors in the cranial vault (in particular at the occiput), but it also anchors at the sacrum holding the spinal cord in position so that it does not rotate or become displaced by normal movement.

### INHALATION

On inhalation (see diagram) as the cranium expands, the occiput and the sacrum move downwards shortening the spinal cord pushing C.S.F. upwards.

### SACRAL - OCCIPITAL PUMP ON INHALATION

