Restrictions of the cranium at birth probably affects all of us to some degree. It is thought that in severe instances this restriction may lead to brain damage, cerebral palsy (spasticity) or autism, or may contribute towards Sudden Infant Death Syndrome (cot death). In less severe cases it may lead to dyslexia, learning difficulties, hyperactivity, epilepsy, obsessive behaviour, personality disorders, and a wide variety of developmental problems.

But in all of us (supposedly “normal” individuals) such restriction, in a less severe form, may play an important part in determining our mental ability, our personality, our general health and constitution, our susceptibility to allergy, asthma, a multitude of other disorders, as well as influencing the subsequent development of all our body systems (nervous, digestive, immune, etc...) and consequently may determine our very natures.

Consider the birth process: the baby is squeezed head first down a canal too narrow to allow an easy passage, and the infant’s head is compressed and forced through this narrow canal during a process which generally lasts several hours and which may last twenty-four or more.

Consider also the cranium of a new born baby: not a solid bony structure (otherwise it wouldn’t pass through the canal at all) but a delicate membranous balloon. The cranial vault (skull) consists of plates of soft incomplete bone connected by membrane, and the cranial base being pliable, partly formed bone connected by areas of malleable growth cartilage.

Intense compression of this delicate structure over many hours (as is the case with most births) pushes the bones of the cranium up against each other and distorts the shape of the head considerably. This is normal and inevitable; but if the cranial bones remain in this shape, or if they fail to release completely, then these distortions may prevent the proper formation of the skull, and thereby restrict development of the brain.

Fortunately the body’s inherent self-healing and self-correcting mechanisms are also powerful; and on emerging from the birth canal these self-corrective forces are able to remould the compressed cranium back into roughly the shape and formation for which it was designed. However, this innate remoulding is seldom completely successful, and the degree to which the restrictions and compressions are resolved varies from individual to individual, depending primarily on the nature of the birth process.

For most of us the resultant cranial restrictions (and consequent effects on our health and brain development) will be relatively minor. But with a difficult birth or protracted labour, where compression of the baby’s cranium has been prolonged and forceful, or aggravated by malpositioning or perhaps by over-zealous use of forceps, then the bones of the cranium may become so firmly compressed against each other or distorted to such an extent that the body’s inherent healing forces are not able to resolve asymmetry. And this, depending on the degree of the distortion involved, is when the more severe symptoms described earlier may arise.

The bones of the cranium should, in a normal healthy state, be able to move freely in relation to each other, articulating at the sutures (or joint lines) where the bones meet. This movement is particularly free in the newborn skull, reducing more and more as we move into adulthood and as the bones gradually fuse together.

All the parts of the cranium, external or deep within the skull, may be subject to displacement and any of the sutures between the bones may be liable to reduced freedom of movement as a result of such compression. Restrictions in any part of the cranium may in turn inhibit brain development, the individual effects varying according to the site of restrictions. Reduced mobility in any one part of the cranium is likely to influence the cranium as a whole, and therefore may affect brain development in many different ways.

The occipital bone (the base of the skull) is particularly susceptible for two reasons: firstly, by virtue of its position at the base of the cranium it is liable to experience a particularly high degree of force and consequent disruption. Secondly, the four portions of the occipital bone surround the foramen magnum and positional disturbances are therefore liable to put pressure on the spinal cord or the medulla with potentially devastating consequences.

Since the occiput at birth is still in four separate portions linked by cartilage it is easy for these separate portions to be displaced from their relative positions, for the cartilaginous growth areas to be compressed, and for all the subsequent growth of the occipital bone (and therefore the whole cranium) to be distorted in accordance with this fundamentally asymmetrical pattern. In the milder patterns which affect all of us to some extent the various symptoms of cranial restrictions will emerge gradually as time goes on. In these milder cases the symptoms are likely to be dismissed as a “normal” level of ill health a “normal” level of limited ability, or simply as personality traits. Even in relatively severe cases obvious symptoms such as learning difficulties or problems with motor co-ordination may not
manifest for several years. This is partly because the distorted cranium may not initially cause any inhibitory effect on brain development, until the brain attempts to grow and develop more fully, and thereby encounters the limiting effects of the bony restrictions. And also because major deficiencies in a child’s behaviour are expected. In these cases, the effects such as learning difficulties may be attributed merely to limited ability, to genetic factors, to psychiatric disorders or to a variety of unknown cases.

In the most severe cases the symptoms may be immediately obvious from the moment of birth, with clearly apparent spasticity, respiratory problems or cranial distortions. But even in the most severe cases, such as cerebral palsy, the symptoms are more likely to be diagnosed (by the medical orthodoxy) as brain damage, when in fact the brain is merely being inhibited and restricted by severe distortion of the cranium. This is well illustrated by a case history reported by Beryl Arbuckle:

“I would like to cite the case of one newborn. The mother had been in labour twelve hours with the baby in face presentation. At this time caesarean section was performed, but the baby had already sustained its injury. The symptoms were cyanosis (bluish discolouration of the skin. Maybe a disorder of the blood), weak cry, tremors, and projectile vomiting. Besides the malalignment of the proportions of the occiput around the foramen magnum and bilateral buckling of the mastoid portions of the temporal, the anterior fontanel was obliterated, the frontal bones were fairly flat, and the nasion so depressed that its angulation seemed almost acute.

“Before cranio-sacral therapy was requested for this case, the parents had been told that the baby’s brain had been damaged. Let us remember that at birth the cerebrospinal system is that system which is least developed and the brain is, therefore, at this time of life, far from complete.

“Projectile vomiting ceased after the first cranial treatment and the cyanosis gradually disappeared, the further administration of oxygen being unnecessary. After the second treatment the baby was able to suck and swallow its maintenance amount. The next two days the baby was left undisturbed by further treatment. The clinical symptoms were entirely eliminated, the forehead was round, there was a good, even anterior fontanel, and the other five fontanels were present, but there still existed the severe angulation at the nasion. With the index finger in the mouth this was connected easily with the baby’s aid in vigorous sucking. This child, now well in to her second year, is normal, which we feel justified in attributing to the fact that she was given the benefit of cranio-sacral therapy.”

So whatever the severity or otherwise of the case, cranial symptoms are unlikely to be recognised by the orthodox medical profession as having an origin in the cranio-sacral system or in the birth process, and so the opportunity for immediate and early treatment is missed. Early treatment is extremely important in order to ensure complete resolution and recovery. The separate portions of the temporal and sphenoid bones fuse together during the first year of life; the four portions of the occiput are fused between the ages of three and six years. If distorted growth patterns have become consolidated in to the cranial structure by this time then all subsequent growth will be affected to some extent. Even after all those ages, and in fact into adulthood and old age, the cranium remains malleable and adaptable. But the longer a distortion pattern is left in the cranium, the longer it will take to treat, and the less complete will be the resolution. Here again a case history from Beryl Arbuckle illustrates the potential:

“A girl aged eleven years was attending a special school, supposedly because she had a very low IQ.