

THE ECTODERM

(Collated by Michelle Wilkinson www.movingnaturally.co.uk)

At around 2 weeks gestation a disc forms, then divides to become the outer, inner and middle tissue layers of the body. The outer layer is known as the ectoderm which creates the human skin and the nervous system, including the brain, sensory organs and nerves.

Between 3 and 4 weeks the embryo's ectoderm begins to differentiate into the skin tissue which moves outwards from the neural tissue.

The hair, nails, tooth enamel and mammary glands are formed from ectoderm cells.

The skin turns inwards to line the orifices of mouth, nostrils and anal canal. These are sites where the ectoderm meets the inner tissue layer of the endoderm.

The skin and nervous system are reflections of each other. The skin is the outer surface of the brain while the brain is the deepest aspect of the skin. They form a single unit throughout a person's lifetime and are only made divisible through dissection or analytical abstraction.

Tactile experience from the touch activation of sensory organs informs neural development. Therefore, positive physical touch and sensory stimulation from birth into childhood encourages a secure and responsive nervous system.

The ectoderm is the body's communication system between the internal and external environment. It orchestrates bodily functions, records and stores behavioural/movement patterns, retrieves information, remembers, projects and interprets within the context of its life history.

The solar plexus is a network of nerves in the central upper abdomen behind the stomach. It contains ganglia which send nerve fibres to the internal abdominal organs.

The sciatic nerve is the largest nerve in the body running from the lower back, down the back of each leg to their respective heels. It is a mixed nerve with both motor and sensory fibres which allow humans to stand, walk and run.