

Will It Hurt?

Six Facts about Pain Perception in the Developing Human

by Dr. Sheila Page

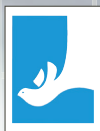


- 1. The human body develops as a single unit, not in pieces, from the moment of conception.** It is important to realize that human development is not a series of switches being turned on or an assembly of pieces. It is a dynamic continuum of differentiation and movement.
- 2. The beginning of the nervous system implies the beginning of function.** The idea that the function of the nervous system is added at some time after the development of its shape and structure is inconsistent with the observable order of development of all the other organ systems in the human. The internal organs and the nervous system are functional at the beginning of their formation.
- 3. There are two definitions of pain: a subjective psychological one and an objective basic scientific definition.** The basic scientific definition states that pain is a defense mechanism for the body that is directly correlated to tissue damage. It causes the individual to move away from a painful stimulus. Repeated studies have shown that people feel pain at precisely the time that cell damage occurs.

4. **Almost all pain fibers terminate in the lower brain centers (the reticular activating system and the thalamus).** Type C fibers, responsible for burning pain, terminate almost exclusively in the reticular formation. A very small percentage of Type A fibers will connect in the thalamus to neurons that travel to the cortex for the purpose of localizing pain.
5. **The fundamental unit of pain perception—the peripheral nerves, spinal cord, and reticular activating system—is completed as a unit between seven and eight weeks.** By 10 weeks, the motion of breathing begins and continues until birth, shaping and developing the respiratory system. The nervous system and the other organ systems are highly developed and functional. At this time, trauma to the unborn child can cause pain.
6. **All sensory receptors are denser in a baby than in an older child.** They are very sensitive to their environment, and **they are able to feel pain.**

For more information, download “AAPLOG Fact Sheet – Fetal Pain” at aaplog.org.

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