

### 18 weeks

14cm long, 200gms. The child can use hands to grasp, swims and turns somersaults. Mother first feels her baby's movements.

### 24 weeks

Sleeping habits appear. To sleep, the child settles into a favourite position. A loud noise, such as the door slamming, will provoke activity. The child also responds to sounds in frequencies too high or too low for adults to hear.

### 28 weeks

Fine baby hair grows on eyebrows and head. A fringe of eyelashes appears. Most of the skeleton has hardened. Weight is about 640gms and height about 23cm.

### 32 weeks

Permanent eye teeth are present. Eyelids open and close and eyes look around. Hands grip strongly. Mother's voice can be heard and recognised. The baby begins to accumulate some fat.

### 36 weeks

Weight increases by 1kg and the baby's space in the womb begins to get cramped.

### 38 weeks

Labour begins (triggered by the child) and the birth occurs, usually 255-275 days after conception. Of the 45 generations of cell divisions between conception and adulthood, 41 have taken place. The remaining four will occur during the rest of childhood and adolescence.

*The milestones listed above have been documented by scientific research. Slight variations of hours or days, may exist and future research using more sensitive methods may show that some of these milestones occur earlier than is now realised.*



20 weeks: Sleeping habits

For 24 hour pregnancy counselling

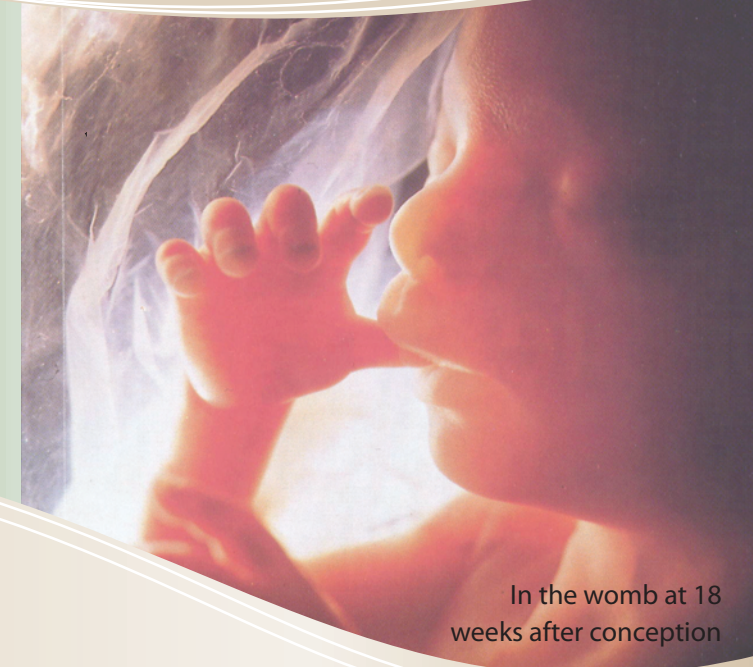
**PREGNANCY ASSISTANCE**

**1300 792 798**

PO Box 366 LIVERPOOL NSW BC 1871

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# The beginning of the Journey of Life



In the womb at 18 weeks after conception

## **LIFE BEGINS AT CONCEPTION AND ENDS AT DEATH**

The late Dr. Jerome LeJeune, professor of genetics at the University of Descartes in Paris, and discoverer of the chromosome pattern of Down's syndrome said,

*'After fertilisation has taken place a new human being has come into being. Each individual has a very neat beginning, at conception.'*

## These are some of the milestones of the first nine months of life

**Conception** Father's sperm penetrates mother's egg cell. Within the hour, genetic instructions from both parents interact to establish the design and inheritance of a new and unique individual - at this stage no bigger than a grain of sugar.

**1<sup>st</sup> day** Cell division begins. The first cell divides into two, the two into four, and so on.

**5-9 days** Now a ball of hundreds of cells, the new individual burrows into the wall of the womb.

**14 days** Mother misses her first menstrual period - suppressed by a hormone produced by her baby.

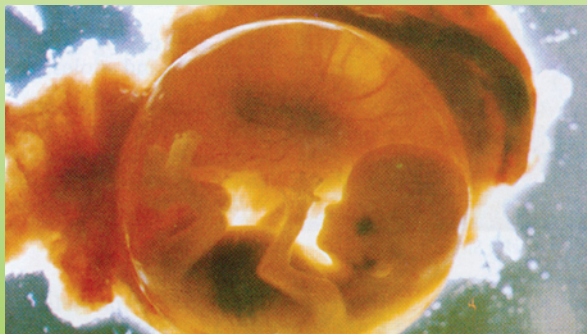
**17 days** Blood cells are forming.

**18 days** The heart is forming.

**19 days** Eyes start to develop.

**20 days** Foundations of the brain, spinal cord and entire nervous system are laid.

**24 days** The heart begins to pulsate.



10 weeks: Sensitive to touch

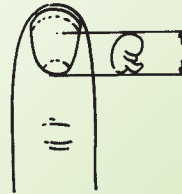
**28 days** Forty pairs of muscles are developing along the future spine. Arms and legs are budding.

**30 days** From one cell to millions of cells, the embryo has grown 10,000 times. The brain has human proportions. Blood flows in veins (but the child's bloodstream remains separate from the mother's throughout the pregnancy).

**35 days** The pituitary gland is forming in the middle of the brain. Mouth, ears and nose are taking shape.

**40 days** The heart's energy output is already 20 percent of an adult's.

**42 days** 6-7mm long. The child's skeleton is formed (in cartilage, not yet bone). The brain co-ordinates movements of muscles and organs. Reflex responses have begun. In boys, the penis is forming. (The mother misses her second period).



**43 days** Brain waves can be recorded.

**45 days** Spontaneous movements have begun. Buds of milk teeth have appeared.

**7 weeks** Lips are sensitive to touch. Ears may already resemble a family pattern.

**8 weeks** The child is well-proportioned but small. Every organ is present. The heart beats sturdily. The stomach produces digestive juices. The liver manufactures blood cells. The kidneys begin to function. Taste buds are forming.

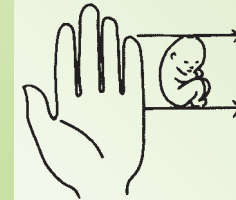
**8 ½ weeks** Fingerprints are being engraved. Eyelids and palms of the hand are sensitive to the touch.

**9 weeks** The child will bend his or her fingers around an object placed in the palm. Thumb sucking occurs. Fingernails are forming.

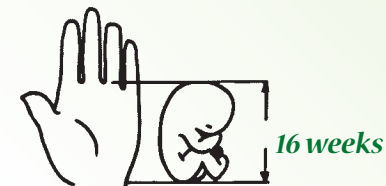
**10 weeks** The entire body is sensitive to touch (except for the sides, back and top of the head). The child squints, swallows, puckers up his or her brow and frowns.

**11 weeks** The baby urinates. He or she can make complex facial expressions even smile.

**12 weeks** 9cm long, 45gms. Activity has become vigorous and behaviour shows distinct individuality. The child can kick legs, turn feet, curl and fan toes, make a fist, move a thumb, bend a wrist, turn the head, open the mouth and press lips tightly together. Breathing is practised.



**13 weeks** Facial expressions already resemble those of the parents. Movements are graceful and flowing. Reflexes are vigorous. Vocal chords are formed (but in the absence of air the baby cannot cry aloud). Sex organs are apparent and sperm or egg cells are present.



16 weeks