

1.2 CONCEPT OF PRE-NATAL PERIOD :

Pre-natal period means the entire period of conception till the birth of a child. A child is born after completing 9 months 10 days in mother's womb. This period may not be same with all women.

You have already learnt about reproductive organs of both male and female in first year course. Due to physical relations between a man and a woman, the woman becomes pregnant by bio-chemical process. In case of woman, within 12-14 days after menstruation, one reproductive cell (ovum) comes out from the ovary and moves towards the uterus. When a sperm unites with ovum,

fertilization occurs and the woman becomes pregnant. If fertilization does not occur, the ovum may die within three days.

1.3 STAGES OF PRE-NATAL DEVELOPMENT

The entire pre-natal period is divided into three different stages. They are -

1. Period of ovum or germinal period.
2. Period of embryo.
3. Period of foetus.

1. Period of ovum or germinal Period :

This period starts from conception to the end of second week. During this period, the fertilized egg floats freely and receive nourishment from the yolk to maintain life. But within 10 days, it gets implanted in the uterine wall and divided into two parts as inner and outer part. From the outer part, umbilical cord, placenta and amniotic fluid develop and the inner part takes the shape of a human being. The ovum starts receiving its nourishment through mother, thus ovum becomes a parasite.

2. Period of Embryo :

From the second week of conception, till the end of second month is known as the period of embryo. The

embryo from pin head develops to an individual of 3.5 cm in length. External and internal features start developing and functioning. By the end of 8th week, heart beat can be felt and the embryo receives its nourishment from mother through the umbilical cord and placenta. By the end of this period, the embryo measures $1\frac{1}{2}$ - 2 inches in length and weighs about 35 gms. Emotional shock, accident, sudden fall and improper diet of mother during this stage may lead to miscarriage.

3. Period of foetus :

This stage starts from the end of second month and ends at child birth. All external and internal features continue to grow and develop and resembles human being by 5th month. During 3rd month of pregnancy, ears are formed, fingers and nails appear and nose fully develop. Heart beat can be felt and the foetus begins to move at 4th month. By 5th month, fine hair appears on the head and the foetus become 12 inches long. Now mother can feel the movements of the child. During 5th and 6th months, the foetus can open its eyes, trunk lengthens, bones are formed and heart function starts. The mother's abdomen goes on enlarging. Some type of fluid comes out from the breast and it is known as

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“Colostrum”. At this stage, the weight of the foetus is about 2 kgs.

During 8th and 9th month, the colour of the skin of the foetus becomes red, soft ears develop. The foetal movements are felt and the mother's abdomen no longer enlarges and subsequently, the foetal movements are less often and less vigorous. At the end of the 9th month, the fully developed foetus occupies an inverted position in the uterus for delivery. The foetus is now 10-20 inches long and weighs about 3 kgs. Thus, a baby is born after 280 days or 9 months 10 days from conception.