

Different Stages of Prenatal Development and Prenatal Tests that Relate to Prenatal Development

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PRENATAL DEVELOPMENT

Development happens quickly during the Prenatal Period, which is the time between conception and birth. This period is by and large separated into three stages the germinal stage, the embryonic stage, and the fetal stage.

Stage 1 - The germinal stage

The 2 week period after conception is called the Germinal Stage. Conception happens when a sperm cell combines with an egg cell to create a Zygote. Almost thirty-six hours after conception, the zygote starts to separate quickly. The resulting ball of cells moves along the mother's fallopian tube to the uterus.

Around seven days after conception, the ball of cells begins to become embedded within the wall of the uterus. This process is called Implantation and takes about a week to complete. However, as is quite common, the pregnancy terminates, if implantation fails. One key point of the germinal stage is the development of a tissue called the Placenta.

The placenta has two important functions

Passing oxygen and nutrient supplements from the mother's blood into the embryo or fetus

Removing waste materials from the embryo or fetus

Stage 2 - The embryonic stage

The Embryonic Stage proceeds from the end of the germinal stage to two months after conception. The developing ball of cells is presently called an Embryo. In this stage, all the major organs form, and the embryo gets to be exceptionally delicate. The biggest dangers are teratogens, which are agents like as viruses, drugs, or radiation that can cause deformities in an embryo or fetus. At the conclusion of the embryonic period, the embryo is as it were approximately an inch long.

Stage 3 - The fetal stage

The final stage of prenatal development is the Fetal Stage, which

keeps going from two months after conception until birth. Almost one month into this stage, the sex organs of the baby start to form. The embryo quickly develops as bones and muscles shape, and it starts to move inside the uterus. Organ systems develop farther and start to serve. Amid the last three months, the brain increases quickly in size, a protection layer of fat forms beneath the skin, and the respiratory and digestive systems begin to work autonomously.

Fetal viability

Around twenty-two to twenty-six weeks after conception, the fetus comes to the age of viability, after which it has a few chance of surviving out- side the womb if it's born prematurely. The chances of a premature baby's survival increase altogether with each extra week it remains within the mother's uterus.

Parental concerns

Many parents have questions or concern almost the pre-birth development of an existing or anticipated child and what steps they ought to take to guarantee their child's health. During prenatal visits to an obstetrician, a pregnant mother should be educated in proper nutrition and prenatal care; frequently, prenatal vitamins are prescribed to avoid nutritive deficiencies. Prenatal testing is often recommended to parents-to- be as a means of assessing the fetus's health and the threat of developing certain conditions.

A few common prenatal tests that relate to prenatal development are

Blood tests to check for illnesses that may influence the fetus, such as HIV, hepatitis B, or other sexually transmitted infections

- Blood tests to check if the mother carries a protein called Rh factor on her red blood cells; if she doesn't and her baby does (determined by whether the father is Rh-positive or not), she'll bear treatment to help a potentially damaging reaction to the baby
- Chorionic villus sampling, a prenatal test that takes a minor test of the placenta with a needle to test for chromosomal abnormalities
- Nuchal fold or nuchal translucency screening test, which

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measures a little space at the back of the fetus's neck utilizing ultrasound; fetuses with bigger nuchal folds have a more prominent risk of having a chromosomal abnormality

- Amniocentesis, a test that takes a sample of the fluid that surrounds the fetus in the uterus to identify certain genetic diseases, congenital malformations, or the maturity of the fetus's lungs.