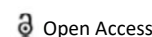




PERSPECTIVE



Physiological Changes in Pregnant Women

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Description

Pregnancy, also known as gestation, is the period during which a woman's womb creates one or more babies. Multiple pregnancies, such as twins, result in more than one child. Pregnancy is most commonly caused *via* sexual activity; however it can also be caused by assisted reproductive technology methods. A live birth, a spontaneous miscarriage, an induced abortion, or a stillbirth are all possible outcomes of a pregnancy. Childbirth usually takes place around 40 weeks after the Last Menstrual Cycle (LMP) began. It's just been a little more than nine months (gestational age). The length is around 38 weeks when using fertilisation age. During the first eight weeks after fertilisation (i.e. ten weeks' gestational age), the developing progeny is referred to as an embryo; beyond that, the term foetus is used until birth. Missed periods, sensitive breasts, morning sickness (nausea and vomiting), hunger, and frequent urination are all signs and symptoms of early pregnancy. A pregnancy test can be used to confirm your pregnancy. Birth control—or, more precisely, contraception—is used to prevent conception.

Pregnancy is separated into three trimesters, each lasting around three months. Conception occurs during the first trimester, when the sperm fertilises the egg. After that, the fertilised egg goes down the Fallopian tube and into the uterus, where it begins to create the embryo and placenta. The risk of miscarriage (the natural demise of an embryo or baby) is highest during the first trimester. Movement of the foetus can be felt towards the middle of the second trimester. If given high-quality medical care at 28 weeks, more than 90% of newborns can survive outside the uterus, while babies born at this time are more likely to have major health concerns such as heart and lung disorders, as well as long-term intellectual and developmental problems.

Prenatal care raises the chances of a healthy pregnancy. Taking extra folic acid, avoiding drugs, cigarette smoking, and drinking, exercising regularly, having blood tests, and having frequent physical examinations are all examples of prenatal care. High blood pressure, gestational diabetes, iron deficiency anaemia, and severe nausea and vomiting are all possible pregnancy complications. When a woman is "at term," labour starts on its own in the perfect situation. Preterm babies are those born before 37 weeks of pregnancy and are at a higher risk of health issues such as cerebral palsy. "Early term" refers to babies born between weeks 37 and 39, while "full term" refers to babies born between weeks 39 and 41. Babies born between weeks 41 and 42 are referred to as "late term," while those born after 42 weeks are referred to as "post term." It is not suggested to deliver before 39 weeks by labour induction or caesarean section unless it is absolutely necessary for medical reasons.

Maternal changes

Many physiological changes occur during pregnancy that are completely normal, including behavioural, cardiovascular, hematologic, metabolic, renal, and respiratory changes. Blood sugar, respiration, and cardiac output must all be increased. During pregnancy, progesterone and oestrogen levels grow steadily, inhibiting the hypothalamus axis and, as a result, the menstrual cycle. Early full-term pregnancy lowers the risk of breast, ovarian, and endometrial cancer; and the risk decreases with each subsequent full-term pregnancy.

The foetus is genetically distinct from its mother and can be considered an exceptional allograft. Increased immunological tolerance during pregnancy is the major explanation for this success. Immunological tolerance refers to the body's ability to avoid mounting an immune response in response to particular triggers. The uterus grows and shrinks throughout the trimesters.

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Minute ventilation increases by 40% throughout the first trimester. By eight weeks, the womb will be the size of a lemon. In the first trimester, several pregnancy symptoms and discomforts, such as nausea and sore breasts, occur. The growing uterus has formed a visible "baby bump" by the end of the second trimester. Despite the fact that the breasts have been developing internally since the beginning of the pregnancy, the majority of the apparent changes occur after this point. Most women feel more energised during the second trimester, and they begin to gain weight as the symptoms of morning sickness diminish

away. During pregnancy, the uterus, the muscular organ that houses the developing foetus, can enlarge up to 20 times its normal size. During the third trimester of pregnancy, woman expects a child (last month). The uterus grows larger and larger, taking up more and more space in the woman's abdomen. Months are designated on the left anterior view, and the last four weeks are identified on the right lateral view. The foetus and uterus will drop to a lower position during the latter stages of pregnancy before the act of giving birth.