

## Post-Term Pregnancy

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### Definition and Introduction of Post-term Pregnancy

Post-term pregnancy is defined as any pregnancy that has gone beyond 42 completed weeks of pregnancy, this can be translated to 294 days since onset of conception or any pregnancy that exceeds the expected date of delivery by a fortnight i.e. 14 days from a first trimester ultrasound estimated date of delivery (EDD) (ACOG, Opinion 579) [1].

It is imperative to accurately estimate the gestational age and preferably by ultrasound scan as a sizable number of post-term pregnancies are erroneously diagnosed due to a wrongly calculated EDD. An accurate EDD is best and accurately estimated in the first trimester of pregnancy when minimal biological variations have set in and may be calculated from the last known menstrual period in women with regular and normal menstrual cycles. Any attempt to date the pregnancy beyond the first trimester introduces error margins from 2-3 weeks from the actual EDD. Where discrepancy exists between the ultrasound age and age determined by the last menstrual date, the latter is usually used.

The quoted prevalence of post-term pregnancy is 7 percent worldwide. Several known risk factors account for post-term pregnancy such as primiparity and previous post-term pregnancy. Biochemical abnormalities that occur in conditions such as placental sulfatase deficiency contribute to post-term pregnancy. Fetal anomalies also play a significant role in post-term pregnancy such as fetal anencephaly thought to act by the absence of cortisol production, and post-term pregnancy is known to occur more commonly amongst male fetuses and a theory of greater genetic predisposition to prolongation of pregnancy has received widespread support in medical literature [2].

The EDD is most reliably and accurately determined early in the pregnancy and may be based on the last known menstrual period in women with regular, normal menstrual cycles. Because of normal variations in the size of infants during the third trimester, dating the pregnancy during this period is less reliable. If the estimated gestational age by a patient's last menstrual period is different from the estimate obtained via assessment with ultrasonography, the ultrasound estimate should be used. With prolongation of pregnancy beyond term the placental function begins to significantly deteriorate and more drastically so from the 43rd completed week, this poses several risks to the fetus such as increased perinatal mortality rate, low umbilical cord pH at delivery, low 5-minute Apgar scores, dysmaturity syndrome, and increased risk of neonatal and infant. In spite of the diminishing placental function some post-term infants are larger than term infants and have an increased incidence of fetal macrosomia; however a policy of prophylactic induction of labour does not have widespread acceptance.

The mother carrying a pregnancy post-term is not immuned from complications ranging from increased operative vaginal delivery, dysfunctional labour, increased perineal tears and the psychological complications associated with the known and unknown fears of post-term pregnancies. Several controversies in the optimum modality of management for post-term pregnancies and there is agreement that fetal surveillance does not improve neonatal/fetal outcome [3].

For purpose of practice the agreement is that women with post-term pregnancies who have unfavourable cervixes should either undergo labour induction at approximately date plus 10 days i.e. at 41 weeks 3 days or be managed expectantly with continued fetal surveillance while awaiting spontaneous onset of labour in the firm belief that the pregnancy cannot go on indefinitely. As previously stated

that there is a lack of evidence that antenatal monitoring contributes to improving perinatal outcome, by consensus it has become reasonable to commence antenatal fetal surveillance of post-term pregnancies between 41 weeks (287 days; EDD plus seven days) and 42 weeks (294 days; EDD plus 14 days) of gestation because of evidence showing that perinatal morbidity and mortality increase as placental aging increases with advancing gestational age [4].

Best method for fetal surveillance in post-term surveillance remains controversial but many practitioners use twice-weekly testing with some evaluation of amniotic fluid volume beginning at 41 weeks of gestation. A non-stress test and amniotic fluid volume assessment (a modified BPP) are generally agreed as adequate [5]. In situations where the Bishop score indicates a good inducibility index many authorities recommend prompt delivery in a post-term patient and in the absence of any contraindication to vaginal delivery. Prostaglandin is recommended for use in post-term pregnancies to promote cervical ripening and labour induction. In the presence delivery should be if there is evidence of fetal compromise or decreased amniotic fluid volume (oligohydramnios).

## References

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