

**MATERNITY UNIT****GUIDELINE: Evaluation of reduced fetal movements****SCOPE:** All LMC's, core midwives and obstetricians working in Maternity Unit.**AUTHOR:** Obstetrician

**PURPOSE:** Fetal movement is an important indicator of fetal status. Maternal perception of decreased fetal movements is a common cause of maternal concern. Approximately 4 – 15% of pregnant women will contact their provider with the complaint of decreased fetal movement in the third trimester. A significant reduction or change in the pattern of fetal movement is an important clinical sign. Decreased fetal movements can be an early warning sign of poor fetal oxygenation. Early recognition of decreased fetal movements by the woman provides the care provider with an opportunity to evaluate and intervene while the fetus is still compensated and prevent progression to fetal harm or intrauterine death. The purpose of this guideline is to provide guidance in the best practice management of decreased fetal movements in the third trimester.

**DEFINITIONS:** Maternal perception of the frequency of fetal movements during fetal wakefulness in a normal pregnancy is relatively consistent throughout the third trimester although the quality of the perceived movements can change. Fetal movements increase throughout the day peaking late at night. Fetal movements are typically absent during fetal sleep cycles which occur regularly throughout the day and night. Sleep cycles usually last 20 – 40 minutes and rarely exceed 90 minutes in a normal healthy fetus. There is currently no evidence that any quantitative limit of decreased fetal movement is more effective than a qualitative maternal perception of decreased fetal movement in the identification of pregnancies at risk for adverse outcomes.

There is no agreed upon definition of decreased fetal movement. The level of fetal movement that reliably distinguishes a healthy fetus from an at risk fetus is not known. The most vigorously tested definition of decreased fetal movement comes from Moore et al and is defined as less than 10 movements within 2 hours when the fetus is active. This is the definition adopted by the Royal College of Obstetricians and Gynecologists and the American College of Obstetricians and Gynecologists.

Approximately 70% of pregnancies with a single episode of decreased fetal movement are uncomplicated and not at additional risk. However, women who report decreased fetal movement on two or more occasions are at increased risk of poor perinatal outcomes including stillbirth, fetal growth restriction, and preterm birth.

**GUIDELINE:** If a woman complains of decreased fetal movements, assessment of the woman and her fetus should be undertaken as soon as possible. The initial assessment should ideally be undertaken within 2 hours. A thorough evaluation of the woman and her fetus should be undertaken with attention to maternal, obstetrical, and fetal risk factors for adverse outcome. The goal of the evaluation is to rule out imminent fetal demise and to assess common risk factors such as fetal growth restriction, smoking, high or low BMI, hypertension, preeclampsia/toxemia, gestational diabetes, and advanced maternal age. No randomized trials have evaluated the management of decreased fetal movement, hence the optimal management plan is not known.

**Assessments:**

- 1: CTG should be performed to evaluate fetal wellbeing.
- 2: Maternal physical exam should be performed with a review of the obstetrical record for conditions that place the fetus at increased risk for adverse outcome.
- 3: Ultrasound assessment is recommended where maternal perception of decreased fetal movement persists despite a normal CTG or if fetal growth restriction is suspected. The ultrasound should be performed within 24 hours and include amniotic fluid assessment. Fetal growth should be included if there is a size-dates discrepancy or fetal growth restriction is suspected and has not been assessed in the preceding 2 weeks. Fetal anatomic survey should be included if not previously performed. Doppler velocimetry is useful if fetal growth restriction has been identified.
- 4: A maternal assay for fetal-maternal haemorrhage should be considered in the presence of decreased fetal movement and a sinusoidal heart rate pattern, unexplained fetal tachycardia, or fetal hydrops on ultrasound.
- 5: If a woman complains of decreased fetal movement prior to 24 weeks gestation, she should undergo routine antenatal assessment including auscultation of the fetal heartbeat.

**FOLLOW UP AND MANAGEMENT**

- 1: Routine follow-up is indicated in short duration decreased fetal movements in which normal activity returns and the evaluation is normal.
  - 2: Abnormal findings should be handled as per usual clinical standards and guidelines.
- There are no studies to guide the management of persistent decreased fetal movements in which the antepartum evaluations noted above are all normal. Women with persistent decreased fetal movements should be considered for repeat evaluations. The intervals at which these evaluations should be performed and the evaluations to perform depend on the risk profile of the women and the subjective and objective measures of fetal activity, but follow up in 48 hours should be considered if decreased fetal movement is persistent. Early delivery can be considered but the decision to deliver needs to be weighed against the risks to the mother and fetus at that particular gestation. Pregnancies with persistent decreased fetal movements should not be allowed to continue post term.

**ASSOCIATED DOCUMENTS:**

Maternity – Fetal heart rate assessment and monitoring – Antenatal and Intrapartum

**REFERENCES**

Gardener G, Daly L, Bowring V, Burton G, Chadha Y, Ellwood D, Frøen F, Gordon A, Heazell A, MacDonald S, Mahomed K, Norman JE, Oats J, Flenady V. *Clinical practice guideline for the care of women with decreased fetal movements*. Centre of Research Excellence in Stillbirth. Brisbane, Australia, August 2017.

Reduced Fetal Movements – New Green-top Guideline no 57; Royal College of Obstetricians and Gynaecologists, 25 Feb 2011.

Decreased Fetal Movements: Diagnosis, Evaluation, and Management; Up To Date, updated August 31<sup>st</sup> 2017.

Moore TR, Padiquadio K. A prospective evaluation of fetal movement screening to reduce the incidence of antepartum fetal death. *Am J Obstet Gynecol* 1989; 160:1075-80.

---

**Authorised By (Head of Department Obstetrics)**

---

**Authorised By (Director of Midwifery / Clinical Midwife Manager)**

**Date of Approval: December 2020**

**Next Review Date: December 2023**