Decreased Fetal Movement: AWHONN Practice Brief #20

An official practice brief from the Association of Women's Health, Obstetric and Neonatal Nurses.

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The information herein is designed to aid nurses in providing evidence-based care to women and newborns. These recommendations should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

Recommendations

- Assess fetal movements with every point of contact during the third trimester.
- Assess fetal well-being within 2 hr after a pregnant person reports decreased fetal movements.
- Know the risk factors for decreased fetal movement and provide increased surveillance for those with any risk factor(s).

Background

The Centers for Disease Control and Prevention (CDC, 2022b), defined stillbirth as the death of a fetus before or during delivery. Early stillbirth occurs from 20 to 27 weeks gestation when fetal movements are soft and sporadic. Late stillbirth occurs from 28 to 36 weeks gestation when fetal movements are more noticeable and a pattern can be detected. A stillbirth at term occurs at 37 weeks gestation or later. Because of improvements in medical care during pregnancy, the rate of stillbirth has decreased but continues to affect 1 in 175 births (CDC, 2022b). Bias and racism influence the occurrence of perinatal health disparities (American College of Obstetricians and Gynecologists, 2021). Black non-Hispanic mothers are twice as likely to experience stillbirth as Hispanic or White mothers, which may be related to socioeconomic factors, access to high-quality health care, or ongoing maternal stress (CDC, 2022a). Women's perceptions of reduced frequency of fetal movements were associated with an increased risk of stillbirth (Liu et al., 2022). Heazell and colleagues (2017) found that women whose pregnancies ended in stillbirth were less likely to notice fetal movements and less likely to have been encouraged by their health care professionals to observe fetal movements. Pregnancies that ended in stillbirth were more frequently associated with changes in fetal movements during the preceding 2 weeks, and these changes were described as a significant reduction in fetal activity or a sudden single episode of excessive fetal activity (Heazell et al., 2017). Pregnant people should be aware of fetal movement patterns throughout the pregnancy and report any noticeable change to their health care providers, especially during the third trimester. Health care providers should trust their patients' perceptions and evaluate fetal health every time a pregnant woman presents with decreased fetal movement (Warland et al., 2018).

Fetal Movements

Fetal movements are commonly felt first from 18 to 20 weeks gestation; however, movements can be felt earlier by multiparous women and later by primiparous women (Agass & Patel, 2016). During the early and late third trimester, Bradford and Maude (2018) reported a noticeable increase in the strength of movements and that movements transitioned from chaotic to organized. After 28 weeks gestation, pregnant women could more easily determine the strength and frequency of fetal movements and identify when changes occurred (Bradford & Maude, 2018).

Factors That Affect Fetal Movement

Fetal movement is subjective and is mainly assessed by the pregnant person. Factors that may affect the perception of fetal movement are advanced maternal age, high body mass index, primiparity, an anterior placenta, fetal growth restriction, and small for gestational age (Agass & Patel, 2016; Akselsson et al., 2020; Mangesi et al., 2015; Tsakiridis et al., 2022). The frequency of perceived fetal movements can be influenced by the woman's body position, activity, anxiety, and food intake, such as caffeine and glucose (Liu et al., 2022).

Interventions

When a pregnant person reports changes in fetal movement patterns or decreased fetal movement, clinicians and health care providers should initiate the following:

- Trust the pregnant person's perception (Warland et al., 2018).
- Advise the pregnant person to present for an assessment of fetal health within 2 hr of notification of decreased fetal movement (Royal College of Obstetricians and Gynaecologists

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[RCOG], 2011). Explore the social determinants of health and access to appropriate facility, which may affect the ability to present within 2 hr.
- Avoid recommendations for interventions that may delay in-person evaluation, such as ingesting sugary beverages.

Medical Setting

- Assess fetal heart tones with a Doppler device (Jakes et al., 2018; Lai et al., 2016; RCOG, 2011).
- Perform a clinical assessment, including a full medical, health, and pregnancy history (Jakes et al., 2018; Lai et al., 2016; RCOG, 2011).
- If fetal heart tones are present, evaluate fetal well-being with one or more of the following: non-stress test, modified biophysical profile, and/or ultrasound evaluation. In rural settings, consider a referral to the closest obstetric care unit, ultrasonography center, or emergency department for further testing (Jakes et al., 2018; Lai et al., 2016; RCOG, 2011).
- If fetal heart tones are absent, consider obtaining an urgent ultrasonography (Jakes et al., 2018; Lai et al., 2016; RCOG, 2011).
- Explain fetal assessment findings to the pregnant person and family if present. Schedule reassessment and encourage immediate follow-up with any further episodes of fetal movement changes.

Education During Pregnancy

Educate pregnant people and their families about the following:
- Expected fetal development and changes in sensations of fetal movement throughout the pregnancy.
- Monitoring of fetal movements to include quantity (number) and quality (intensity) (Tsakiridis et al., 2022), which may vary based on gestational age.
- The type and nature of changes in intensity and sensation of fetal movements throughout the pregnancy (Woods & Heazell, 2018). It is important to emphasize that the frequency of movement does not decrease toward the end of pregnancy (Woods & Heazell, 2018).
- Nocturnal fetal movements are commonly experienced as strong or moderate in intensity (Bradford et al., 2019).

Prenatal Care Education for Nurses and Other Health Care Professionals

- Train all health care providers and clinicians in appropriate assessment and management of reported changes in fetal movement, especially in areas of limited or no obstetric care (i.e., maternity care deserts).
- Ensure staff competency in fetal heart monitoring and that appropriate fetal heart monitoring equipment is available where possible.

Summary

Focused assessment and management of decreased fetal movement or significant changes in fetal movement patterns by perinatal clinicians is essential for improved fetal outcomes. In rural areas or maternity care deserts, resources for advanced fetal assessment may be unavailable. Collaborative care plans that include shared decision making with pregnant people and their families should be coordinated to include referrals to a higher level of care when possible.

AWHONN's Contextual Statement

Although the words "woman," "women," and "mother" and related pronouns are used herein, the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) recognizes the existence of diverse gender identities and acknowledges that not all individuals who present for care self-identify as women or exclusively as women. When referencing the published results of previous studies, terms used by the original authors are retained for accuracy. To provide appropriate, respectful, and sensitive care, the health care provider is encouraged to always ask individuals what words they use to describe themselves, their bodies, and their health care practices.

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References

Agass, R., & Patel, S. (2016). Maternity triage: A guide for trainees. *British Journal of Hospital Medicine, 77*(12), C186–C189. https://doi.org/10.12968/hmed.2016.77.12.C186

Akselsson, A., Lindgren, H., Georgsson, S., Pettersson, K., Steineck, G., Skokic, V., & Rådestad, I. (2020). Mindfetalness to increase women's awareness of fetal movements and pregnancy outcomes: A cluster-randomised controlled trial including 39,865 women. *British Journal of Obstetrics and Gynaecology, 127*(7), 829–837. https://doi.org/10.1111/1471-0528.16104

American College of Obstetricians and Gynecologists. (2021). Antepartum fetal surveillance: ACOG Practice Bulletin No. 229. *Obstetrics & Gynecology, 137*(6), e116–e127. https://doi.org/10.1097/AOG.0000000000004410

Bradford, B., & Maude, R. (2018). Maternal perception of fetal movements in the third trimester: A qualitative description. *Women and Birth, 31*(5), e287–e293. https://doi.org/10.1016/j.wombi.2017.12.007

Bradford, B., & Maude, R. (2019). A diurnal fetal movement pattern: Findings from a cross-sectional study of maternally perceived fetal movements in the third trimester of pregnancy. *PloS one, 14*(6), e0217583. https://doi.org/10.1371/journal.pone.0217583

Centers for Disease Control and Prevention. (2022a). *Black mothers are more likely to experience stillbirth compared to Hispanic and White mothers.* https://www.cdc.gov/ncbddd/stillbirth/features/kf-black-mothers-stillbirth.html

Centers for Disease Control and Prevention. (2022b). What is stillbirth?. https://www.cdc.gov/ncbddd/stillbirth/facts.html

 doi: 10.1016/j.jogn.2023.11.007

Heazell, A. E. P., Warland, J., Stacey, T., Coomarasamy, C., Budd, J., Mitchell, E. A., & O'Brien, L. M. (2017). Stillbirth is associated with perceived alterations in fetal activity—Findings from an international case control study. *BMC Pregnancy and Childbirth, 17*(1), Article 369. https://doi.org/10.1186/s12884-017-1555-6

Jakes, A. D., Whybrow, R., Spencer, C., & Chappell, L. C. (2018). Reduced fetal movements. *BMJ, 360*, Article k570. https://doi.org/10.1136/bmj.k570

Lai, J., Nowlan, N. C., Vaidyanathan, R., Shaw, C. J., & Lees, C. C. (2016). Fetal movements as a predictor of health. *Acta Obstetricia et Gynecologia Scandinavica, 95*(9), 968–975. https://doi.org/10.1111/aogs.12944

Liu, Y., Xuan, R., He, Y., Ren, F., & Gu, Y. (2022). Computation of fetal kicking in various fetal health examinations: A systematic review. *International Journal of Environmental Research and Public Health, 19*(7), Article 4366. https://doi.org/10.3390/ijerph19074366

Mangesi, L., Hofmeyr, G. J., Smith, V., & Smyth, R. M. (2015). Fetal movement counting for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews, 2015*(10), Article CD004909. https://doi.org/10.1002/14651858.CD004909.pub3

Royal College of Obstetrics and Gynaecologists. (2011). Reduced fetal movements: Green-top Guideline No. 57. https://www.rcog.org.uk/media/2gxndsd3/gtg_57.pdf

Tsakiridis, I., Zerva, C., Mamopoulos, A., Kalogiannidis, I., Athanasiadis, A., & Dagklis, T. (2022). Maternal perception of fetal movements: Onset and associated factors. *Journal of Perinatal Medicine, 50*(9), 1174–1179. https://doi.org/10.1515/jpm-2021-0606

Warland, J., Heazell, A. E. P., Stacey, T., Coomarasamy, C., Budd, J., Mitchell, E. A., & O'Brien, L. M. (2018). "They told me all mothers have worries," stillborn mother's experiences of having a "gut instinct" that something is wrong in pregnancy: Findings from an international case–control study. *Midwifery, 62*, 171–176. https://doi.org/10.1016/j.midw.2018.04.009

Woods, J. R., & Heazell, A. E. P. (2018). Stillbirth: Is it preventable? *Obstetrics, Gynaecology and Reproductive Medicine, 28*(5), 148–154. https://doi.org/10.1016/j.ogrm.2018.03.006