



## FETAL MOVEMENT - OVERVIEW

### Nursing

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### KEYWORDS

Fetal Kicks, Quickening, Fetal Heart Tone, Fluttering, hiccup, fetal seizure etc...

**“There is no better feeling than the movement of baby inside of you.”**

Amongst the most expected phases during pregnancy is when you could feel your baby "interacting" with you through kicks from inside tummy. It's also somewhat special because sharing those fleeting moments with the partner when the tummy would visibly move and bulge is like having him or her as an active participant in your pregnancy, too. Feeling baby kick for the first time is an exhilarating and remarkable milestone in pregnancy.

Fetal movements felt by pregnant women are a sign that the fetus grows in size and strength. The mother is usually the first to feel these movements, which can later be perceived by others. Women are often taught by their health care provider to monitor or be aware of the movements of the fetus. Extreme movement or the lack of movement can both be signs of your baby struggling or being unwell. This is why it is imperative to understand how, why, and when your baby moves and if the movement is healthy or not.

#### Definition

Fetal movement refers to motion of a fetus caused by its own muscle activity.

#### Physiology of fetal movement

Locomotor activity begins during the late embryological stage and changes in nature throughout development. Muscles begin to move as soon as they are innervated. These first movements are not reflexive but arise from self-generated nerve impulses originating in the spinal cord. As the nervous system matures, muscles can move in response to stimuli.

#### Decreased fetal movement.

Multiple factors can decrease perception of movement, including early gestation, a reduced volume of amniotic fluid, **fetal sleep state**, obesity, anterior placenta (up to 28 weeks' gestation), smoking and nulliparity.

#### Increased fetal movement.

There are certain trends that most pregnancies follow, such as the fetus being the most active after a meal, although this may not be the case for every pregnancy.

#### Abnormal fetal movement

Abnormal forceful, jerky, and periodic fetal movement can be associated with a **fetal seizure**. The seizures occur repeatedly, usually involving the whole fetal body, and at a frequency that varies from two movements/second in clonic convulsions to several times/minute in lightning convulsions.

#### Time To Feel Fetal Movement

- In pregnancy terms, **quickening** is the moment in pregnancy when the pregnant woman starts to feel her baby's movement in the uterus.
- The word *quick* originally meant "alive". Historically, quickening has sometimes been the beginning of the possession of "individual life" by the fetus.
- Fetuses start to move in early pregnancy, but mother does not feel anything for a few months or till 16 to 20 weeks of gestation, but can identify from the ultrasound.
- Initial fetal movements can be mistaken for wind or feel like gentle flutters. As the baby grows the feeling of movement becomes more definite.
- A woman pregnant for the first time (i.e., a primigravida woman)

typically feels fetal movements at about 18–20 weeks, whereas a woman who has given birth at least once will typically feel movements around 15–17 weeks.

#### Common Types Of Fetal Movements

These movements are common and expected such as kick, hiccup, roll, turn, or twist. When fetus grows, these movements will get stronger.

#### Fluttering, butterflies, or bubbles

- Mother start to feel the baby movement between 18 and 22 weeks of pregnancy.
- At first, these small movements feel like fluttering or "butterflies."
- Some women say that they feel like gas bubbles.
- These first flutters are sometimes called "quickening."

#### Hiccups

- Mother start to notice some jerking movements inside the belly by 24 weeks of gestation.
- Mother might even see them on the outside.
- Repeated jerky movements usually mean that fetus has the hiccups.
- Hiccups are perfectly normal.
- They can last anywhere from a minute to an hour.
- Mother may feel her baby has hiccups through the rest of their pregnancy.

#### Kicks, twists, and turns.

- Mother feel fetal movement after 18 to 20 weeks of gestation and may notice that baby moves more at certain times of day.
- For example, when mother is active, she may feel less movement than when she is resting quietly.
- Fetus finds the activity and noise of daytime hours to be soothing.
- So, they often sleep during the day and are awake at night.
- As pregnancy continues, mother may feel some changes in baby's movement.
- At 22 to 26 weeks of gestation, she may feel her baby start to kick and may notice that her baby does less turning and twisting and more squirming or jerking.
- At about 28 weeks of gestation, she may feel her baby move from head-down to feet-down, or even sideways.
- Starting at about 30 to 32 weeks, she should feel her baby move several times a day.
- Baby sleeps approximately 20 to 45 minutes at a time and then is more active at certain times of day.
- At 40 weeks of gestation, baby has grown larger and doesn't have much room to move around.
- Mother will probably notice less "big" movement than before.

#### Monitor Fetal Movements.

##### Fetal movement counting, often called kick counting.

- The American Congress of Obstetricians and Gynecologists (ACOG) recommends that you time how long it takes you **to feel 10 kicks**, flutters, swishes, or rolls. Ideally, feel at least 10 movements within 2 hours.
- **Ten movements** (such as kicks, flutters, or rolls) in 1 hour or less are considered normal.
- Less activity may simply mean the baby is sleeping. If an hour goes by and you have not recorded 10 movements, have something to eat or drink and count for another hour.
- Count baby's movements once a day.
- Can feel at least **6 or more movements in 2 hours**.
- **There's no set number of fetal movements to feel** each day – every baby is different.

**Fact about fetal movement**

- Daily fetal movement count is self-monitoring of baby's health by the mother by counting fetal movements.
- Healthy live fetus has good movement.
- Sick babies have lesser movements.
- Fetus have sleep cycles and duration of sleep vary from 20-90 minutes. During sleep babies have fewer movements.
- Movements become completely absent on fetal death.
- Fetal movement count should be done for one hour after breakfast, after lunch and after dinner, in lying down left lateral position.
- Normal healthy babies should have more than 5 to 6 movements in one hour. If movements are less, counting should be continued further in the next hour. If normal movements felt, stop the procedure.
- If fewer movements are felt continuously for 6 hours, consult your doctor.

**Monitor At Home**

- Advise her to get into a comfortable position either lying on side or sitting.
- Place one or both of hands on abdomen.
- Count each time that feel baby move.
- If mother feel many movements all at once, count each movement that she feels.

**Monitor At Hospital**

- Fetal movement can be recorded by cardiotocography in clinical settings.
- Follow up for any decrease in perceived fetal movement with a non-stress test.
- This non-invasive test can evaluate fetal movement and fetal heart rate accelerations.
- A reactive non-stress test must have accelerations of the fetal heart of a specific size, duration, and frequency.
- This includes at least three fetal heart tone (FHT) accelerations, which are at least 15 beats per minute above the baseline and last at least 15 seconds, all within a 20-minute window.
- A non-reactive non-stress test, one that does not have the three accelerations, could indicate fetal sleep or fetal compromise, and further testing should be done.
- Usually, the non-stress test is first extended for a longer time to determine if the lack of accelerations was just due to fetal sleep.
- If the non-stress test continues to be non-reactive, then a BPP (biophysical profile) is often completed.
- This is an ultrasound of the fetus to assess fetal breathing movement, fetal movement of the body or limbs, fetal tone, and amniotic fluid volume. If this test does not reassure the healthcare provider, then the delivery of the fetus should be considered.
- Fetal movement count monitoring is a low-cost and low-tech method that has the potential to prevent worsening problems with unborn babies and merits the attention of providers and pregnant women.

**Tips for Getting Baby to Move in Utero**

- Have a snack.
- Do some jumping jacks, then sit down.
- Gently poke or jiggle your baby bump.
- Shine a flashlight on your tummy.
- Drink ice cube mixed water or juice.
- Lie down.
- Talk to baby.
- Do something that makes you nervous (within reason).
- Sing a lullaby or turn up the music (just make sure it's not too loud).

**CONCLUSION**

The counting of fetal movements (FM) during pregnancy is thought to be a way that is satisfying for women and gives them the power to know when their baby is doing well and, more importantly, when they need more assessment. Maternity Care professionals should stress that counting fetal movements is not just about the amount of movements, but also about how strong each movement is. Movements in a fetus start early, are clear from the start, and are very similar to movements after birth.

**REFERENCES**

1. Froen, J. F., Heazell, et. Al., (2008, August). Fetal movement assessment. In *Seminars in perinatology* (Vol. 32, No. 4, pp. 243-246). WB Saunders.
2. Heazell, A. P., & Froen, J. F. (2008). Methods of fetal movement counting and the detection of fetal compromise. *Journal of Obstetrics and Gynaecology*, 28(2), 147-154.

3. Sadovsky, E., & Yaffe, H. (1973). Daily fetal movement recording and fetal prognosis. *Obstetrics & Gynecology*, 41(6), 845-850.
4. DiPietro, J. A., Bornstein, M. H., et al., (2002). What does fetal movement predict about behavior during the first two years of life? *Developmental Psychobiology: The Journal of the International Society for Developmental Psychobiology*, 40(4), 358-371.
5. Moore, T. R., & Piacquadio, K. (1989). A prospective evaluation of fetal movement screening to reduce the incidence of antepartum fetal death. *American journal of obstetrics and gynecology*, 160(5), 1075-1080.