Volume 00, Issue 0

Growing Families

Caring For Childbearing Families and Neonates

Fetal Position | Labor Process Implications

Author: Stephanie H. Keck, BSN, MSN

BEHAVIORAL OBJECTIVES

AFTER READING THIS LESSON THE LEARNER WILL BE ABLE TO:

- 1. Discuss normal and abnormal fetal position as it relates to labor and birth, as well as the normal labor process.
- 2. Discuss common risk factors for fetal malpresentation and malposition will be described, as well as risks of abnormal fetal position to the mother and fetus.

For the majority of women, the processes of labor and birth are normal, natural events, occurring without complications. The woman's body works in concert with the fetus, resulting in a successful birth. There are many factors involved in the birth process, and one of the most important of these is the position of the fetus as labor and birth occur. Fetal position significantly impacts these processes, and in many cases, determines whether or not vaginal birth is possible.

This lesson will discuss fetal position as it relates to labor and birth. The normal labor process will be reviewed, with definition of normal and abnormal fetal positions. Common risk factors for fetal malpresentation and malposition will be described, as well as risks of abnormal fetal position to the mother and fetus.

Overview of the Labor Process

In normal labor, the uterine contractions and maternal pushing efforts propel the fetus through the open cervix and down the vagina, culminating in the baby's birth. Along this journey, the fetus passes through the maternal bony pelvis. To make this possible, there must a favorable relationship between the size of the fetal head and the size of the pelvic opening. For vaginal birth to occur,



the largest part of the fetus, which is normally the head, must be able to move through the opening of the maternal pelvis as fetal descent occurs. To accomplish this, the fetal head normally enters the pelvis such that the narrowest part of the head is presented to the pelvic opening. The maternal pelvis is usually oval in shape, and wider from side to side than front to back. The fetal head is wider from front to back than side to

side. So to promote a good fit between the two, the fetal head normally enters the pelvis in a somewhat "sideways" position, with the back of the head slightly toward the front of the mother's right or left side, rather than directly to her front or back. The fetal head and body then perform a series of movements, the mechanisms of With each movement, the fetal head presents its narrowest diameter to the pelvis, and rotates in such a way to continue doing this throughout descent. Also, because the bones of the fetal skull are not fused, the head can change shape to adapt to the pelvic diameters. This "molding" facilitates the movement of the fetus through the pelvis. The fetal shoulders follow the head in descent, and because they are wider from side to side than front to back (opposite of the fetal head shape), further rotation of the fetal body occurs after the head emerges to allow the shoulders to go through the pelvis at its widest point.

Fetal Presentation and Position

These normal mechanisms of labor demonstrate the importance of the relationship between the maternal pelvis and the fetal head. A normally-positioned fetus, one who is head-down with the head well-flexed and chin tucked, is in the ideal position to facilitate the birth process. A fetus who is not normally positioned may have significant impact on the effectiveness, duration and outcome of labor.

The terms presentation and position are used to describe the orientation of the fetus in the maternal abdomen. Presentation refers to the part of the fetus that enters the maternal pelvis first. This is normally the head, or cephalic presentation. Approximately 95% of fetuses are in a cephalic presentation when labor begins. Other presentations include breech, with the fetal buttocks and/or feet presenting, and shoulder presentation, when the fetus is in a transverse lie across the maternal abdomen.

The types of presentation have several variations, depending on which structure of the fetus is the presenting part. The presenting part is the fetal structure closest to the cervix. The normal cephalic presentation is vertex, the area on the fetal skull between the anterior and posterior fontanelles. The fetal head is fully flexed, the chin is tucked, and the back of the head is against the cervix, so the smallest fetal head diameter enters the pelvis. If the fetal head becomes extended, rather than flexed, presentations such as brow and face may occur. These present larger head diameters to the pelvis, impacting the labor process. Breech presentation may be classified as:

- Complete: The fetal hips and knees are flexed, as if the fetus is sitting cross-legged
- *Frank:* The hips are flexed and knees extended, so that the legs are folded straight up against the abdomen.
- *Footling*: The hips and knees are extended and one or both feet present, either single or double footling.

All presentations other than vertex are considered malpresentations, since they can adversely affect labor.

Each presentation, such as vertex or complete breech, can also be classified by the direction the fetus is facing in the maternal

/// SAMPLE ONLY \\\

A new, two page lesson and ten question, multiple-choice posttest are accessible on the first business day of each month. Administrators can access the answer keys for each posttest.

POPULATION/AGE-SPECIFIC EDUCATION POST-TEST

Growing Families Caring for Childbearing Families and Neonates	Name: Unit#:
Sample 2022	Employee ID#:

Competency: Demonstrates Population/Age-Specific Competency by correctly answering 9 out of 10 questions related to Fetal Position | Labor Process Implications.

FETAL POSITION | LABOR PROCESS IMPLICATIONS

- 1. The landmark for determining the position of a fetus in a face presentation is the fetal:
 - a. forehead.
 - b. chin.
 - c. nose.
 - d. ear.
- 2. Which of the following pregnant women is at highest risk for fetal malpresentation/ malposition?
 - a. Shital, who has mild preeclampsia
 - b. Amber, who has been diagnosed with placental abruption
 - c. Yasmine, who has had a previous cesarean birth
 - d. Jennifer, who is having her 6th baby
- 3. The main function of the mechanisms of labor is to:
 - a. strengthen uterine contractions to promote effective birth.
 - b. present the smallest fetal diameters to the pelvis.
 - c. decrease the discomfort of contractions during labor.
 - d. ensure that fetuses with malposition/malpresentation can be born vaginally.
- 4. The vast majority, about 95%, of fetuses are in a cephalic presentation when labor begins.
 - a. True
 - b. False
- 5. A fetus in a left occiput posterior position is in which of the following presentations?
 - a. Vertex
 - b. Breech
 - c. Brow

/// SAMPLE ONLY \\\

A new, two page lesson and ten question, multiple-choice posttest are accessible on the first business day of each month. Administrators can access the answer keys for each posttest.

Each Subscription Includes:





★ Contact Hours for Staff



Enroll Today!



Questions? Contact us by eMail at <u>info@myersnursing.com</u> or by phone at (828) 348-1238