

Stages of Labor- Maternal (OB) Nursing

True Labor vs False Labor

True:

- Regular contractions
- Contractions become stronger, last longer, and occur closer together
- Fetus “engages” and begins to descend

False:

- Contractions are irregular
- Dilation, effacement, and descent do not occur
- Activities, such as walking, relieve feelings of false labor

Maternal responses to the birth process:

Cardiovascular	<ul style="list-style-type: none">- Increased blood volume- Increase BP- Decreased pulse- Hypotension may occur if positioned supine- <i>Check BP between contractions</i>
Respiratory	<ul style="list-style-type: none">- Depth and rate increase- Increased risk of hyperventilation- <i>Encourage slow, controlled breathing</i>
Gastrointestinal	<ul style="list-style-type: none">- Decreased GI motility- Avoid large amounts of glucose due to rebound hypoglycemia in the newborn- Fluids are restricted; <i>ice chips can be offered</i>
Urinary	<ul style="list-style-type: none">- Decreased bladder sensation- Full bladder can lead to increased discomfort and can inhibit fetal descent- <i>Foley may be inserted</i>
Hematopoietic	<ul style="list-style-type: none">- Increased blood volume- 500 mL is normal blood loss for a vaginal birth- WBC average: 14,000 to 16,000/mm³ (as high as 25,000 can be normal)- Increased risk for venous thrombosis

Fetal response:

- Placental circulation- maternal blood supply to placenta **stops** during strong contractions
- Fetal protective mechanisms
 - o Fetal hemoglobin
 - o High hematocrit
 - o High cardiac output
- Cardiovascular system- reacts quickly to events during labor; normal fetal heart rate is **110-160 bpm**
- Pulmonary system- fetal lung fluid production decreases and its absorption into lung tissue increases during late pregnancy and labor; thoracic compression during labor aids in expulsion of additional fluid

Mechanisms of labor:

- **Engagement** of the presenting part at ischial spine
- **Descent**
- **Flexion** of the fetal head so the smallest diameter passes through
- **Internal rotation** so largest diameter of head matches largest diameter of the pelvis
- **Extension** of the fetal head at the symphysis pubis
- **External rotation**
- **Expulsion** of the fetal shoulders and body

Stages of Labor:

Stage One	<p>Latent:</p> <ul style="list-style-type: none">- Dilation 1-4 cm- Contractions:<ul style="list-style-type: none">o Mild intensityo Occur every 15-30 minuteso 15-30 seconds duration- Mother is eager and talkative <p>Active:</p> <ul style="list-style-type: none">- Dilation 4-7 cm- Contractions:<ul style="list-style-type: none">o Moderate intensityo Occur every 3-5 minuteso 30-60 seconds duration
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	<ul style="list-style-type: none"> - Mother is becoming tired but still excited <p>Transition:</p> <ul style="list-style-type: none"> - Dilation 8-10 cm - Contractions <ul style="list-style-type: none"> o Strong intensity o Occur every 2-3 minutes o 45-90 seconds duration - Mother is anxious
Stage Two	<p>Cervical dilation is complete</p> <p>Crowning occurs</p> <p>Contractions:</p> <ul style="list-style-type: none"> - Strong intensity - Occur every 2-3 minutes - 60-75 seconds duration <p>Mother feels urge to bear down</p> <p>Fetus emerges</p>
Stage Three	<p>Placenta expulsion occurs 5-30 minutes after birth of fetus</p> <p>Cord is cut and clamped</p> <p>Examine placenta to ensure if it is intact and there are no retained parts in the uterus</p> <p>Examine the cord- two arteries and one vein</p>
Stage Four	<p>1-4 hours after delivery</p> <p>Fundus should remain contracted, midline, 1-2 fingerbreadths below the umbilicus</p> <p>Monitor lochia- may be a moderate amount and bright red in color</p> <p>Massage uterus as needed</p> <p>Perform maternal assessments:</p> <ul style="list-style-type: none"> - Q 15 minutes x 1 hr - Q 30 minutes x 1 hr - Q 1 hr x 2 hrs

Contraction Cycle

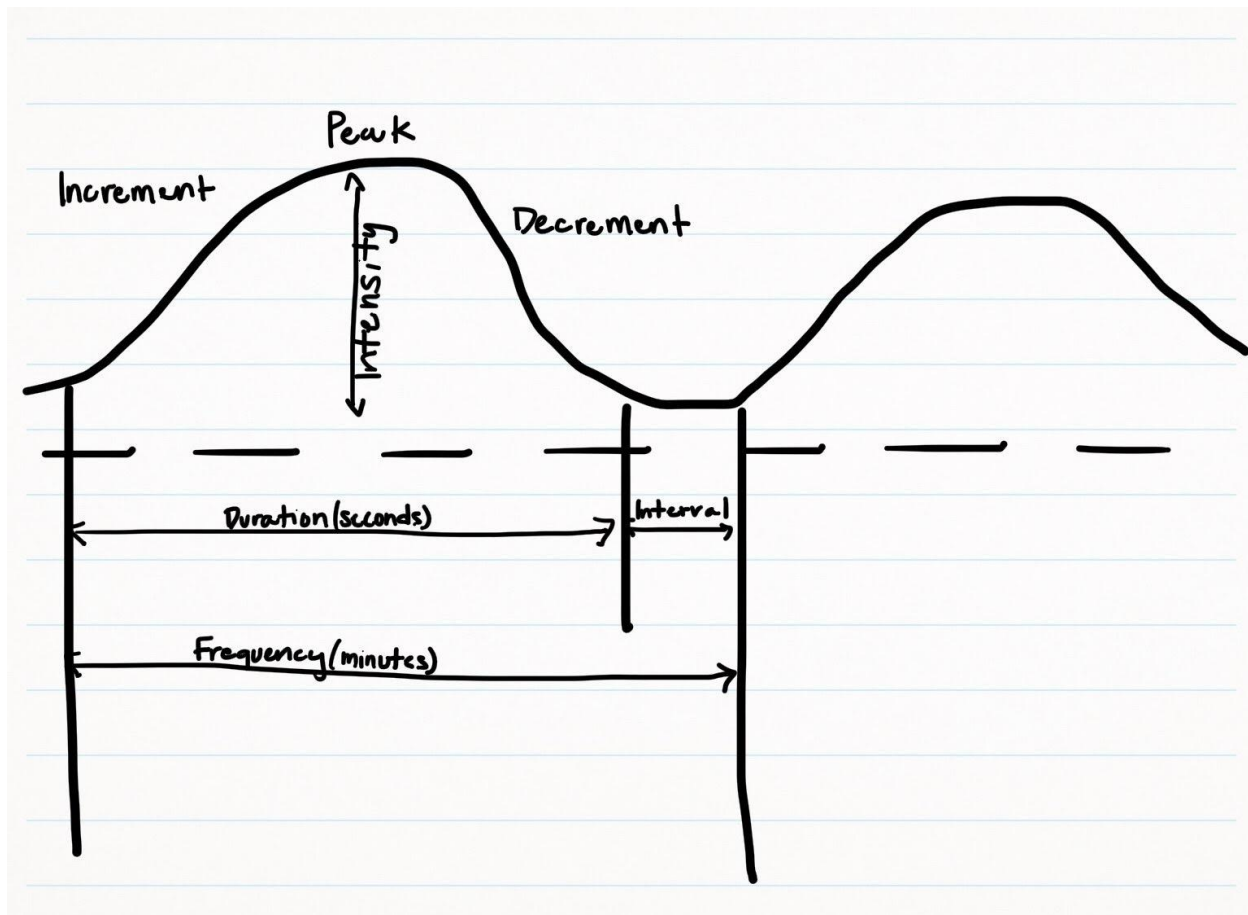
3 phases of the contraction cycle

- Increment
- Peak
- Decrement

Increment- contraction begins in fundus and spreads throughout the uterus

Peak- contraction most intense

Decrement- decreasing intensity as uterus relaxes



The contraction cycle is described in terms of duration, frequency, and intensity.

Duration- length of each contraction; measured in seconds

Frequency- from beginning of one contraction to the beginning of another

Intensity- strength of contractions; described as mild, moderate, or strong

- Mild- tip of the nose
- Moderate- chin
- Strong- forehead

Interval- allows placental blood flow and exchange of oxygen, nutrients, and waste products between maternal and fetal circulation

Nursing Interventions:

Provide encouragement for the mother and the partner, if one is present, throughout the labor process and postpartum period.

Assess for cultural preferences and act accordingly.

Provide comfort measures:

- Dim lighting
- Temperature per the mother's preference
- Comfortable positioning
- Pharmacologic pain relief
- Massage
- Ambulation during early labor

Continually monitor the condition of the mother and the fetus during the labor process. Monitor fetal heart rate and monitor maternal vital signs.

Prepare the sterile table before delivery.

Provide perineal cleansing before delivery.

Observe for maternal hemorrhage after delivery. Monitor the fundus and lochia.

Administer medications such as oxytocin to contract the uterus and control blood loss.

Promote parent-infant attachment.

Provide breastfeeding education for women who choose to breastfeed their babies.

Provide education on how much and how often formula should be given to the infant for women who choose to formula feed.