

Dysfunctional Labor/Dystocia

Dystocia refers to difficult labor which is usually due to uterine dysfunction, fetal malpresentation/abnormality, or pelvic abnormality.

(Refer to CPs: Labor: Stage I—Latent Phase; Labor: Stage I—Active Phase.)

CLIENT ASSESSMENT DATA BASE

Activity/Rest

Report of fatigue, lack of energy
Lethargy, decreased performance

Circulatory

BP may be elevated.
May have received magnesium sulfate (MgSO₄) for pregnancy-induced hypertension.

Elimination

Bowel or bladder distension may be evident.

Ego Integrity

May be extremely anxious, fearful

Pain/Discomfort

May have received narcotic or peridural anesthesia early in labor process.
May have noted false labor at home.
Infrequent or irregular contractions, mild to moderate in intensity (fewer than three contractions in a 10-min period).
May occur prior to the onset of labor (primary latent-phase dysfunction) or after labor is well established (secondary active-phase dysfunction).
Latent Phase of Labor May Be Prolonged: 20 hr or longer in nullipara (average is 8½ hr), or 14 hr in multipara (average is 5½ hr).
Myometrial resting tone may be 8 mm Hg or less, and contractions may measure less than 30 mm Hg or may occur more than 5 min apart; or resting tone may be greater than 15 mm Hg, with contractions rising to 50–85 mm Hg with increased frequency and decreasing intensity.

Safety

May have had external version after 34 weeks' gestation in attempt to convert breech to cephalic presentation.
Fetal descent may be less than 1 cm/hr in nullipara or less than 2 cm/hr in multipara (protracted descent), or no progress over 1 or more hr for nullipara or for 30 min in multipara after complete cervical dilation (arrest of descent).
Vaginal examination may reveal fetus to be in malposition (i.e., breech; chin, face, or brow position).
Cervix may be rigid/"not ripe."
Dilation may be less than 1.2 cm/hr in primipara or less than 1.5 cm/hr for multipara, in active phase (protracted active phase), or absence of cervical changes over a 2-hr period (secondary arrest of labor).
Failure to deliver within 2 hr, or 3 hr with regional anesthesia for primipara, or 1 hr/2hr with regional anesthesia for multipara (prolonged stage II).

Sexuality

May be primigravida or grand multipara.
Uterus may be overdistended owing to hydramnios, multiple gestation, a large fetus, or grand multiparity.
May have identifiable uterine tumors.

DIAGNOSTIC STUDIES

Prenatal Testing: May have confirmed polyhydramnios, large fetus, or multiple gestation.

Nonstress Test/Contraction Stress Test (NST/CST): Assesses fetal well-being.

X-ray Pelvimetry or Ultrasound: Evaluates pelvic architecture, fetal presentation, position, and formation.

Fetal Scalp Sampling: Occasionally done to detect or rule out acidosis.

NURSING PRIORITIES

1. Identify and treat abnormal uterine pattern.
2. Monitor maternal/fetal physical response to contractile pattern and length of labor.
3. Provide emotional support for the client/couple.
4. Prevent complications.

NURSING DIAGNOSIS:**Injury, risk for maternal****Risk Factors May Include:**

Alteration of muscle tone/contractile pattern, mechanical obstruction to fetal descent, maternal fatigue

Possibly Evidenced By:

[Not applicable; presence of signs/symptoms establishes an *actual* diagnosis]

**DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT WILL:**

Accomplish cervix dilation at least 1.2 cm/hr for primipara, 1.5 cm/hr for multipara in active phase, with fetal descent at least 1 cm/hr for primipara, 2 cm/hr for multipara.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Review history of labor, onset, and duration.

Helpful in identifying possible causes, needed diagnostic studies, and appropriate interventions. Uterine dysfunction may be caused by an atonic or a hypertonic state. Uterine atony is classified as primary when it occurs before the onset of labor (latent phase) or secondary when it occurs after well-established labor (active phase).

Note timing/type of medication(s). Avoid administration of narcotics or of epidural block anesthetics until cervix is 4 cm dilated.

A hypertonic contractile pattern may occur in response to oxytocin stimulation; sedation/analgesia given too early (or in excess of needs) can inhibit or arrest labor.

Evaluate current level of fatigue, as well as activity and rest prior to onset of labor.

Excess maternal exhaustion contributes to secondary dysfunction, or may be the result of prolonged labor/false labor.

Assess uterine contractile pattern manually (palpation) or electronically via external, or internal monitor with internal uterine pressure catheter (IUPC).

Note condition of cervix. Monitor for signs of amnionitis. Note elevated temperature or WBC; odor and color of vaginal discharge.

Note effacement, fetal station, and fetal presentation.

Graph cervical dilation and fetal descent against time (i.e., Friedman curve).

Place client in lateral recumbent position and encourage bedrest or sitting position/ambulation, as tolerated.

Encourage client to void every 1–2 hr. Assess for bladder fullness over symphysis pubis.

Assess degree of hydration. Note amount and type of intake. (Refer to ND: Fluid Volume risk for deficit.)

Review bowel habits and regularity of evacuation.

Remain with client if possible, arrange for presence of doula as appropriate; provide quiet environment as indicated.

Have emergency delivery kit available.

Palpate abdomen of thin client for presence of pathological retraction ring between uterine segments. (These rings are not palpable through the vagina, or through the abdomen, in the obese client).

Dysfunctional contractions prolong labor, increasing the risk of maternal/fetal complications. A hypotonic pattern is reflected by frequent, mild contractions measuring less than 30 mm Hg via IUPC or “soft as chin” per palpation. A hypertonic pattern is reflected by increased frequency, an elevated resting tone per palpation or greater than 15 mm Hg via IUPC, and possibly decreased intensity of contractions. Note: Intensity of contractions cannot be measured by external monitor.

A rigid or unripe cervix will not dilate, impeding fetal descent/labor progress. Development of amnionitis is directly related to length of labor, so that delivery should occur within 24 hr after rupture of membranes.

These indicators of labor progress may identify a contributing cause of prolonged labor. For example, breech presentation is not as effective a wedge for cervical dilation as is vertex presentation.

May be used on occasion to document progress/prolongation of labor.

Relaxation and increased uterine perfusion may correct a hypertonic pattern. Ambulation may assist gravitational forces in stimulating normal labor pattern and cervical dilation.

A full bladder may inhibit uterine activity and interfere with fetal descent.

Prolonged labor can result in a fluid-electrolyte imbalance as well as depletion of glucose reserves, resulting in exhaustion and prolonged labor with increased risk of uterine infection, postpartal hemorrhage, or precipitous delivery in the presence of hypertonic labor.

Bowel fullness may inhibit uterine activity and interfere with fetal descent.

Reduction of outside stimuli may be necessary to allow sleep after administration of medication to client in the hypertonic state. Also helpful in reducing level of anxiety, which can contribute to both primary and secondary uterine dysfunction.

May be needed in the event of a precipitous labor and delivery, which are associated with uterine hypertonicity.

In obstructed labor, a depressed pathological ring (Bandl’s ring) may develop at the juncture of lower and upper uterine segments, indicating impending uterine rupture.

Investigate reports of severe abdominal pain. Note signs of fetal distress, cessation of contractions, presence of vaginal bleeding.

May indicate developing uterine tear/acute rupture necessitating emergency surgery. Note: Hemorrhage is usually occult since it is intraperitoneal with hematomas of the broad ligament.

Collaborative

Prepare client for amniotomy, and assist with the procedure, when cervix is 3–4 cm dilated.

Rupture of membranes relieves uterine overdistension (a cause of both primary and secondary dysfunction) and allows presenting part to engage and labor to progress in the absence of CPD. Note: Active management of labor (AML) protocols may support amniotomy once presenting part is engaged to accelerate labor/help prevent dystocia.

Use nipple stimulation to produce endogenous oxytocin, or initiate infusion of exogenous oxytocin (Pitocin) or prostaglandins. (Refer to CP: Labor: Induced/Augmented.)

Oxytocin may be necessary to augment or institute myometrial activity for hypotonic uterine pattern. It is usually contraindicated in hypertonic labor pattern because it can accentuate the hypertonicity, but may be tried with amniotomy if latent phase is prolonged and if CPD and malpositions are ruled out.

Administer narcotic or sedative, such as morphine, pentobarbital (Nembutal), or secobarbital (Seconal), for sleep as indicated.

May help distinguish between true and false labor. With false labor, contractions cease; with true labor, more effective pattern may ensue following rest. Morphine helps promote heavy sedation and eliminate hypertonic contractile pattern. A period of rest conserves energy and reduces utilization of glucose to relieve fatigue.

Prepare for forceps delivery, as necessary.

Excessive maternal fatigue, resulting in ineffective bearing-down efforts in stage II labor, necessitates use of forceps.

Assist with preparation for cesarean delivery, as indicated, e.g., malposition, CPD, or Bandl's ring. (Refer to CP: Cesarean Birth.)

Immediate cesarean birth is indicated for Bandl's ring or fetal distress due to CPD. Note: Once labor is diagnosed, if delivery has not occurred within 12 hr, and amniotomy and oxytocin have been used appropriately, then a cesarean delivery is recommended by some protocols.

NURSING DIAGNOSIS:

Injury, risk for fetal

Risk Factors May Include:

Prolonged labor, fetal malpresentations, tissue hypoxia/acidosis, abnormalities of the maternal pelvis, CPD

Possibly Evidenced By:

[Not applicable; presence of signs/symptoms establishes an *actual* diagnosis]

DESIRED OUTCOMES/EVALUATION CRITERIA—FETUS WILL:

Display FHR within normal limits, with good variability, no late decelerations noted.

CLIENT WILL:

Participate in interventions to improve labor pattern and/or reduce identified risk factors.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Assess FHR manually or electronically. Note variability, periodic changes, and baseline rate. If in free-standing birth center, check FHTs between contractions using Doptone. Count for 10 min, break for 5 min, and count again for 10 min. Continue this pattern throughout the contraction to midway between it and the following contraction.

Note uterine pressures during resting and contractile phases via intrauterine pressure catheter, if available.

Identify maternal factors such as dehydration, acidosis, anxiety, or vena caval syndrome.

Note frequency of uterine contractions. Notify physician if frequency is 2 min or less.

Assess for malpositioning using Leopold's maneuvers and findings on internal examination (location of fontanelles and cranial sutures). Review results of ultrasonography.

Monitor fetal descent in birth canal in relation to ischial spines.

Arrange transfer to acute care setting if malposition is detected in client in free-standing birth center without adequate surgical/high-risk neonatal capabilities.

Prepare client for the most expedient method of delivery if fetus is in brow, face, or chin presentation.

Assess for deep transverse arrest of the fetal head.

Detects abnormal responses, such as exaggerated variability, bradycardia, and tachycardia, which may be caused by stress, hypoxia, acidosis, or sepsis.

Resting pressure greater than 30 mm Hg or contractile pressure greater than 50 mm Hg reduces or compromises oxygenation within intervillous spaces.

Sometimes, simple procedures (such as turning client to lateral recumbent position) can increase circulating blood and oxygen to uterus and placenta and may prevent or correct fetal hypoxia.

Contractions occurring every 2 min or less do not allow for adequate oxygenation of intervillous spaces.

Determining fetal lie, position, and presentation may identify factor(s) contributing to dysfunctional labor.

Descent that is less than 1 cm/hr for a primipara, or less than 2 cm/hr for a multipara, may indicate CPD or malposition.

Risk of fetal/neonatal injury or demise increases with vaginal delivery if presentation is other than vertex.

Such presentations increase the risk of CPD, owing to a larger diameter of the fetal skull entering the pelvis (11 cm in brow or face presentation, 13 cm in chin presentation, versus 9.5 cm for vertex presentation), often necessitating assisted delivery via forceps or vacuum, or cesarean delivery because of failure to progress and ineffective labor pattern.

Failure of the vertex to rotate fully from an OP to an occiput OA position may result in a transverse position, arrested labor, and the need for cesarean delivery.

Have client assume hands-and-knees position, or lateral Sims' position on side opposite that to which fetal occiput is directed, if fetus is in OP position.

Note color and amount of amniotic fluid when membranes rupture.

Observe for visible cord prolapse when membranes rupture, and occult cord prolapse as indicated by variable decelerations on monitor strip, especially if fetus is in breech presentation.

Note odor and change in color of amniotic fluid with prolonged rupture of membranes.

Collaborative

Administer antibiotic to client, as indicated.

If fetus fails to rotate from OP to OA position (face to pubis), prepare for delivery in posterior position. Alternatively, apply vacuum extractor as indicated.

Prepare for cesarean delivery of breech presentation if fetus fails to descend, labor progress ceases, or CPD is identified.

These positions encourage anterior rotation by allowing fetal spine to fall toward the client's anterior abdominal wall (70% of fetuses in OP position rotate spontaneously).

Excess amniotic fluid causing uterine overdistention is associated with fetal anomalies. Meconium-stained amniotic fluid in a vertex presentation results from hypoxia, which causes vagal stimulation and relaxation of the anal sphincter. Noting characteristics of amniotic fluid alerts staff to potential needs of newborn, e.g., airway/ventilatory support.

Cord prolapse is more likely to occur in breech presentation, because the presenting part is not firmly engaged, nor is it totally blocking the os, as in vertex presentation.

Ascending infection and sepsis with accompanying fetal tachycardia may occur with prolonged rupture of membranes.

Prevents/treats ascending infection and will protect fetus as well.

Delivering the fetus in a posterior position results in a higher incidence of maternal lacerations. Vacuum extractor may be used to rotate and expedite delivery of fetus.

Vaginal delivery of an infant in breech position is associated with injury to the fetal spinal column, brachial plexus, clavicle, and brain structures, increasing neonatal mortality and morbidity. Risk of hypoxia caused by prolonged vagal stimulation with head compression, and trauma such as intracranial hemorrhage, can be alleviated or prevented if CPD is identified and surgical intervention follows immediately.

NURSING DIAGNOSIS:

Risk Factors May Include:

Possibly Evidenced By:

DESIRED OUTCOMES/EVALUATION CRITERIA—CLIENT WILL:

Fluid Volume risk for deficit

Hypermetabolic state, vomiting, profuse diaphoresis, restricted oral intake, mild diuresis associated with oxytocin administration

[Not applicable; presence of signs/symptoms establishes an *actual* diagnosis]

Maintain fluid balance, as evidenced by moist mucous membranes, appropriate urine output, and palpable pulses.

Be free of complications.

ACTIONS/INTERVENTIONS**RATIONALE**

Independent

Keep accurate intake/output, test urine for ketones, and assess breath for fruity odor.

Decreased urine output and increased urine specific gravity reflect dehydration. Inadequate glucose intake results in a breakdown of fats and presence of ketones.

Monitor vital signs. Note reports of dizziness with change of position.

Increased pulse rate and temperature, and orthostatic BP changes may indicate decrease in circulating volume.

Assess lips and oral mucous membranes and degree of salivation.

Dry oral mucous membranes/lips and decreased salivation are further indicators of dehydration.

Note abnormal FHR response.
(Refer to ND: Injury, risk for fetal.)

May reflect effects of maternal dehydration and decreased perfusion.

Encourage oral fluids as appropriate.

Clear liquids such as fruit juices and broths provide not only fluids but also calories for energy production. Note: PO fluids are not recommended if surgical intervention is contemplated.

Collaborative

Review laboratory data, e.g.: Hb/Hct, serum electrolytes, and serum glucose.

Increased Hct suggests dehydration. Serum electrolyte levels detect developing imbalances; serum glucose levels detect hypoglycemia.

Administer fluids intravenously.

Parenteral solutions containing electrolytes and glucose can correct or prevent maternal and fetal imbalances and may reduce maternal exhaustion.

NURSING DIAGNOSIS:**Coping, Individual, ineffective****May Be Related To:**

Situational crisis, personal vulnerability, unrealistic expectations/perceptions, inadequate/exhausted support systems

Possibly Evidenced By:

Verbalizations and behavior indicative of inability to cope (loss of control, inability to problem-solve and/or meet role expectations), irritability, reports of tension/fatigue

DESIRED OUTCOMES/EVALUATION CRITERIA—CLIENT WILL:

Verbalize understanding of what is happening.

Identify/use effective coping techniques.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Determine progress of labor. Assess degree of pain in relation to dilation/effacement.

Prolonged labor with resultant fatigue can reduce the client's ability to cope/manage contractions. Increasing pain when the cervix is not dilating/effacing can indicate developing dysfunction. Extreme pain may indicate developing anoxia of the uterine cells.

Acknowledge reality of client's reports of pain/discomfort.

Discomfort and pain may be misunderstood in the presence of lack of progression that is not recognized as a dysfunctional problem. Feeling listened to and supported can help client relax, reducing discomfort and enhancing ability to cope with situation.

Determine anxiety level of client and partner. Note evidence of frustration.

Excess anxiety increases adrenal activity/release of catecholamines, causing endocrine imbalance. Excess epinephrine inhibits myometrial activity. Stress also depletes glycogen stores, reducing glucose available for adenosine triphosphate (ATP) synthesis, which is needed for uterine contraction.

Discuss possibility of discharge of client to home until active labor is established.

Too early admission fosters a sense of longer/prolonged labor for client. Client may be able to relax better in familiar surroundings. Provides opportunity to divert/refocus attention and to attend to tasks that may be contributing to level of anxiety/frustration.

Provide comfort measures and reposition client/encourage ambulation as appropriate. Demonstrate/encourage use of relaxation techniques, including patterned breathing.

Reduces anxiety, promotes relaxation and sense of control, assisting client to cope positively with the situation.

Provide encouragement for client/couple efforts to date.

May be useful in correcting misconception that client is overreacting to labor or is somehow to blame for alteration of anticipated birth plan.

Give factual information about what is happening.

Reduces the "unknowns" to assist with reduction of anxiety and provides data necessary to make informed decisions.