



Induction & Augmentation of Labor

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Foundations of Induction of Labor (IOL)



- Incidence: 21.5% - 27.0% of all births
- IOL is the artificial stimulation of cervical ripening and progressive uterine contractions to facilitate birth.
- Birthing people who undergo induction of labor should be fully informed about their options, the process, and potential risks and benefits for elective as well as medical inductions.
- Optimal IOL management begins with an individualized assessment of each patient's degree of labor readiness using the Bishop score.

Definitions

- **Cervical ripening:** a process that causes the physical softening, thinning, and dilating of the cervix in preparation for labor and birth.
- **Induction of labor:** the use of pharmacologic and/or mechanical methods to initiate labor
- **Augmentation of labor:** the use of pharmacologic methods or artificial rupture of membranes to increase the frequency and/or strength of contractions following the onset of spontaneous labor or spontaneous rupture of membranes

Indications

- Chorioamnionitis (Intraamniotic Infection)
- Premature Rupture of Membranes
- Fetal compromise
 - Severe fetal growth restriction
 - Isoimmunization
 - Oligohydramnios
- Fetal demise
- Postterm pregnancy
- Medical conditions

Contraindications

- Previous C-section with classical incision
- Vasa previa or complete placenta previa
- Malpresentation –transverse fetal lie
- Early Elective Delivery (< 39 weeks)
- Active genital herpes
- Previous myomectomy entering the endometrial cavity
- Umbilical cord prolapse

Cervical Ripening

Bishop Scoring System

Factor

Score	Dilation (cm)	Effacement (%)	Station	Consistency	Position of Cervix
0	Closed	0–30	–3	Firm	Posterior
1	1–2	40–50	–2	Medium	Midposition
2	3–4	60–70	–1, 0	Soft	Anterior
3	≥ 5	≥ 80	+1, +2	—	—

Cervical Ripening Methods

- Pharmacological
 - Dinoprostone (Cervidil) Prostaglandin E2
 - Administration 10 mg-controlled release vaginal insert with removable cord
 - Misoprostol (Cytotec) Prostaglandin E1
 - Administration 25 mcg (recommended initial dose) in posterior vaginal fornix
- Mechanical
 - Sweeping Membranes
 - Hydroscopic/Osmotic Dilators
 - Laminaria
 - Dilapan-S
 - Transcervical Balloon Catheters
- Combinations of mechanical and pharmacological methods
 - Conflicting results in studies around combinations and efficacy
 - Foley/Misoprostol method yielded shorter times to delivery compared to misoprostol alone or Foley alone



Induction & Augmentation Methods

- Pharmacologic

- Oxytocin

- Safety
 - Administration
 - Dosage & rate increase intervals
 - Recommended method for cervical ripening in term prelabor rupture of membranes

- Mechanical

- Amniotomy

- May advance labor process and shorten time to birth when used after moderate cervical ripening



Nursing Considerations

- Patient education & informed consent
- Staffing
 - 1:2 or 1:1
- Policy & procedures
- Indications for use of each method & agent
- Maternal status & Fetal well-being
- Uterine activity & managing tachysystole



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