

UF HEALTH SHANDS HOSPITAL
DEPARTMENT OF OBSTETRICS & GYNECOLOGY
Outpatient mechanical cervical ripening protocol

DATE: March 2026 (V2)

PURPOSE: To describe the recommended practice for outpatient mechanical ripening with a cervical balloon catheter

BACKGROUND/GOALS OF USE:

Cervical ripening with pharmacologic and/or mechanical methods is recommended for an unfavorable cervix during induction of labor (IOL). Traditionally, patients were admitted to the inpatient service for cervical ripening prior to start of induction. The American College of Obstetricians and Gynecologists (ACOG) has endorsed outpatient mechanical cervical ripening as appropriate for select patients.

SUPPORTIVE DATA:

Cervical ripening increases the likelihood of successful vaginal delivery, reduces the risk of cesarean delivery and can be achieved via pharmacologic and/or mechanical methods. Ripening is recommended for an unfavorable cervix, characterized by a calculated Bishop score of less than six points and a cervical dilation of less than two centimeters.

Mechanical ripening methods include intracervical balloon catheters and hygroscopic dilators and are associated with low cost, low incidence of systemic adverse effects, and low risk of uterine hyperstimulation. To be effective, mechanical dilators should be maintained in the cervix for a minimum of six hours however some devices may be left in place for up to 12 to 24 hours.

Outpatient cervical ripening has been shown to reduce time spent on labor & delivery (L&D) units translating into lower hospital costs and increasing patient satisfaction with the labor process. A systematic review and meta-analysis of 740 patients with low-risk pregnancies showed outpatient balloon ripening resulted in a seven-hour shorter labor length and a significantly lower cesarean delivery rate (21% vs 27%, RR 0.76, 95% CI 0.59-0.98) (Pierce-Williams, 2022). Another systematic review and meta-analysis of 9,618 low-risk pregnancies showed no difference in birth trauma, maternal infection, or obstetrical hemorrhage between inpatient and outpatient intracervical catheters although it found no significant difference in incidence of cesarean delivery (McDonagh, 2021). Per ACOG Practice Bulletin number 107, "Mechanical methods may be particularly appropriate in the outpatient setting" citing a randomized control trial comparing outpatient versus inpatient Foley catheters demonstrated similar efficacy and safety with a reduction of hospital stay of 9.6 hours (Sciscione, 2001).

INDICATIONS:

1. Patients planning induction of labor
2. Term pregnancy (37w0d – 41w6d) at time of outpatient cervical ripening
3. Cephalic presentation
4. Bishop score <6 or cervical dilation <2 cm

5. Medically stable mother and fetus without indications for inpatient management or continuous fetal cardiotocography (CEFM) prior to onset of labor
6. Patients who demonstrate understanding of instructions and desire outpatient mechanical cervical ripening

CONTRAINDICATIONS:

1. General contraindications to induction of labor
 - ii. Contraindication to vaginal delivery (eg. vasa previa, placenta previa, prior classical cesarean delivery, placenta accreta, active genital herpes virus infection, history of uterine rupture or myomectomy)
2. General contraindications to mechanical dilators
 - i. Fetal malpresentation
 - ii. Rupture of membranes*
 - iii. Low lying placenta (current)*

*(*may consider trial of mechanical cervical ripening as inpatient)*
3. Conditions that require acute inpatient management or CEFM
 - i. Unstable medical or obstetric diagnoses, such as preeclampsia with severe features, chorioamnionitis, placental abruption or active vaginal bleeding
 - ii. New maternal concerns such as decreased fetal movement, vaginal bleeding, leakage of fluid, severe intractable headache
 - iii. Fetal growth restriction (FGR) with abnormal umbilical dopplers
 - iv. Fetal anomalies requiring immediate resuscitation (eg. PGE dependent lesions)
 - v. Abnormal antenatal testing immediately prior to induction
 - vi. As determined by obstetrical provider assessing patient and/or in consultation with maternal-fetal medicine
4. Patient unable to verbalize understanding of care plan, instructions for self-care, or lacking necessary means to fulfill outpatient plan (ex: lack of housing, phone service, transportation, or support person).
5. History of cesarean delivery
6. Multifetal gestation
7. Alloimmunization
8. Human immunodeficiency virus (HIV) infection
9. Allergy to latex
10. Previous child with GBS septicemia

UNIVERSITY OF FLORIDA CANDIDATES:

Optimal candidates:

1. Maternal indications:
 - I. Gestational diabetes, A1
 - II. Chronic hypertension, well-controlled (not on medication)
 - III. Gestational hypertension
 - IV. Pre-eclampsia without severe features
2. Obstetric indications:
 - I. Late term pregnancy (41w6d)

- II. Advanced maternal age
- 3. Elective induction >39wks
- 4. Must live within 45 miles of UF Health Shands Hospital

Potential candidates who may require individualized shared decision-making

- I. Fetal growth restriction without abnormally elevated umbilical artery doppler flow
- II. Oligohydramnios/polyhydramnios
- III. Intrahepatic cholestasis of pregnancy
- IV. History of stillbirth
- V. Optimal candidates who demonstrate features concerning for poor reliability or safety
- VI. Current suspected fetal macrosomia EFW >4000g

PROCEDURE:

EQUIPMENT/SUPPLIES:

- 1. Silicone Foley catheter with 30mL balloon
- 2. Sterile normal saline – 30mL
- 3. Speculum
- 4. Ring forceps
- 5. Ultrasound
- 6. Non-stress test

PATIENT EDUCATION:

Pre-procedure: (see Appendix A)

All material should be printed and provided to patient, or sent via MyChart using the standardized Epic DotPhrase, prior to discharge from clinic.

- 1. Patient education for outpatient cervical ripening with balloon catheter
(.OUTPATIENTFOLEYEDUCATION)

Post-procedure: (see Appendix B)

All material should be printed and provided to patient, or sent via MyChart using the standardized Epic DotPhrase, prior to discharge from L&D triage.

- 1. Patient instructions for outpatient cervical ripening with balloon catheter
(INPATIENTPOSTFOLEYPLACEMENTPATIENTEDUCATION)

PATIENT ASSESSMENT/PREPARATION:

OUTPATIENT CLINIC PRIOR TO PROCEDURE:

To be performed by OB provider:

- 1. Counsel and educate patient on indications, procedure, and expectations
- 2. Provide patient education material/handout (see Appendix A)
- 3. Place a prep for case for IOL and in the comment section please note that the patient is interested in outpatient mechanical cervical ripening
- 4. Send secure chat message to Joanne and Taylor
- 5. Explain to patient that the charge nurse will call patient into triage for procedure if they have availability
- 6. Document counseling/education has been performed

INPATIENT PRIOR TO PROCEDURE:

To be performed by RN/MA:

1. Verify patient name, date of birth (DOB), medical record number (MRN)
2. Verify IOL scheduled the following day and within 24 hours
3. Verify counseling/education has been performed and documented
4. Obtain and document maternal vital signs including temperature, heart rate, blood pressure, oxygen saturation
5. Obtain CBC and Type & Screen on day of outpatient Foley placement (if not already resulted)
6. Provide hospital gown and prepare patient for procedure
7. Perform pre-procedure fetal non-stress test (NST)
8. Review and document NST with responsible provider (MD/DO/CNM/NP)
9. Obtain relevant equipment/supplies
10. Administer analgesics as needed
11. Assist responsible provider with procedure

To be performed by MD/DO/CNM/NP:

1. Review pre-procedure NST with performing RN/MA
 - a. If NST is non-reactive, perform biophysical profile (BPP). If BPP is reassuring (8/8 or 8/10), may proceed with outpatient Foley placement. If BPP is non-reassuring, proceed with inpatient admission and management.
2. Confirm and document cephalic presentation on point-of-care ultrasound
3. Discuss and document analgesic options with patient

INPATIENT POST-PROCEDURE:

To be performed by RN/MA:

1. Verify patient name, date of birth (DOB), medical record number (MRN)
2. Auscultate and document post-procedure fetal heart rate (FHR)
3. Observe patient for 10 minutes ensuring comfort and assessing safety for discharge home
4. Complete post-procedure safety checklist and document into Epic (see Appendix D)
5. If significant pain, contractions, vaginal bleeding noted or rupture of membranes (ROM) or labor suspected, notify responsible provider

To be performed by MD/DO/CNM/NP:

1. Review post-procedure FHR
2. Document procedure note using Epic

DESCRIPTION OF PROCEDURE:

- Responsible provider performs sterile digital cervical exam and calculates Bishop score
 - If Bishop score >6 : cervix ripened and patient can be discharged with plan to return to L&D for scheduled induction
 - If Bishop score <6 : proceed with mechanical ripening per protocol
- Ensure proper equipment/supplies have been gathered by RN/MA
- Upon digital cervical exam, if placement deemed difficult, prepare for speculum placement per protocol. Otherwise, prepare for digital placement.

DIGITAL PLACEMENT:

- Place patient in frog leg position with knees in butterfly position
- Using sterile gloves and gel gently guide catheter tip into cervical canal ensuring balloon has navigated proximal to internal os
- Slowly inflate with 30mL normal saline
- Leave catheter to gravity or tape distal end to inner thigh without significant traction for comfort

SPECULUM PLACEMENT:

- Position patient in dorsal lithotomy
- Insert speculum into vagina and visualize cervix
- Using ring forceps gently guide catheter tip into cervical canal ensuring balloon has navigated proximal to internal os
- Slowly inflate with 30mL normal saline
- Remove speculum from vagina
- Leave catheter to gravity or tape distal end to inner thigh without significant traction for comfort

APPENDIX A: Outpatient clinic patient education material/handout

You and your provider are planning for an induction of labor. Induction of labor means stimulating labor to start before it begins on its own. About 1 in 4 women have will have an induction. Common reasons for recommending an induction include medical conditions such as diabetes or high blood pressure, or going past your due date.

Induction of labor can be a slow process, lasting 1-3 days. The first part of an induction is to ensure that the cervix is ripe, or ready for labor. A ripe cervix is soft, thin (effaced) and may be a few centimeters open (dilated). Having a ripe cervix increases the chance of a successful induction. If your cervix is not ripe yet, then the first step of your induction will likely be to ripen the cervix (more on this below!) Once the cervix is ripe, labor contractions can be stimulated. This can be done with an oxytocin through an IV (Pitocin), breaking the bag of water, or both.

This handout focuses on cervical ripening for women who may be able to begin the cervical ripening portion of their induction at home.

The cervix can be ripened using medications called “prostaglandins” (ex: misoprostol) and it can be ripened mechanically with a Foley catheter balloon. Often a combination of both medications and mechanical methods are used. Ripening the cervix with medication requires staying in the hospital for close monitoring, since the medicine can also produce contractions and everyone’s body responds a bit differently. However, mechanical ripening does not start labor contractions, so it can safely be done at home for many women who don’t yet need to be or desire to be in the hospital. Both methods are similarly effective for ripening the cervix and both take about the same amount of time, on average.

Mechanical ripening is most commonly done with a Foley balloon catheter. This is a soft rubber or plastic tube with an inflatable balloon at its tip. When inflated with sterile water, the balloon applies gentle pressure to the inner part of the cervix. This works to ripen the cervix by gradually dilating (opening) the cervix a few centimeters, as well as by stimulating the cervix to release natural prostaglandins, that help ripen the cervix.

What should I expect?

You and your provider will decide together if you can start your labor induction at home with the Foley balloon. If so, **your provider will schedule your induction and request for outpatient foley fulb placement. The charge nurse on Labor and Delivery will call you to come to OB triage if they have the availability to do so.** You will be sent home after placement.

At the hospital, you will have the Foley catheter balloon placed. The Obstetrical provider will gently guide the catheter through the natural hole in the cervix and inflate the balloon just inside the cervix (but outside the bag of water). This can be done with a speculum exam (the provider places a speculum to open the vagina and see the cervix as the catheter is inserted), or with a digital exam (the provider wears sterile gloves and uses their fingers to guide the catheter into place).

You may have some cramping and discomfort when the foley catheter is initially placed, but most women find it resolves shortly after the procedure is over. Once it is in place, you may not feel it at all, or it may feel similar to a tampon. You can walk and use the bathroom as usual with it in place. In the unlikely event that you experience heavy vaginal bleeding or breakage of your bag of water at the time of the placement you would be admitted to Labor & Delivery to begin your induction.

After successful placement, you will then go home and return to the hospital when the charge nurse calls you to return or the onset of labor occurs. As you are waiting at home, the cervix will soften and open gradually. You will likely notice some bloody show (blood-tinged mucous). You may also continue to have some mild-moderate cramping from the prostaglandins that are being stimulated as your body gets ready for labor. Once the cervix is open enough, the Foley catheter may fall out. Often women feel cramping when the balloon passes through the cervix into the vagina, after which the sensation tends to fade. If you can feel the balloon or inserts in your vagina, you may remove and discard them and still come in at the planned time for your induction.

Complications are extremely rare, especially with low-risk patients. Your provider will screen you to ensure that you are a good candidate for the outpatient cervical ripening.

If you have any questions, please talk to your provider!

APPENDIX B: Inpatient post-procedure patient education material/handout

Outpatient Cervical Ripening: Going home with your balloon or dilators

Congratulations! You're one step closer to having your baby. You now have a Foley Catheter balloon in your cervix, and the plan is to go home while your cervix is ripening (getting ready for labor). You should return to the hospital if the onset of labor occurs, if the balloon has been in place for 24hrs or more, or when the charge nurse calls you to return for your inpatient induction.

What to expect at home:

It is common to have mild cramping (as you might before a period) while the balloon is in place. Most women will also have some bloody show (light spotting, or blood-tinged mucous). Neither of these is a cause for alarm. The balloon may remain in place the entire time you're at home, or it may fall out at some point. If the balloon does fall out, do not be worried--it has done its job, and you are likely a few centimeters dilated! You may discard it if it falls out. Often, while the balloon is in the process of falling out through the cervix, women will have an increase in cramping. This should quickly resolve after the balloon has passed through the cervix and is sitting in the vagina or has fallen all the way out. You can remain at home even after balloon falls out if spontaneous labor does not occur. The charge nurse will call you and provide an update when to return to the hospital for your inpatient management of induction of labor. The balloon should NOT remain in place for >24hrs therefore you should return to the hospital 24hrs after placement if it does not fall out at home. Please be aware that in some cases, a second Foley balloon placement may be recommended upon your arrival to the hospital if further cervical ripening is needed before starting your induction. Your provider will discuss this with you at that time.

How to take care of yourself at home:

Try to get as much rest as you can tonight. It's fine to take a warm bath before bed to help you sleep, or use a heating pad or Tylenol if you're having mild cramping or mild low back ache. Drink plenty of fluids, and eat light, nutritious meals to keep up your strength. Stretching and gentle exercise help many women to feel well (ex: walking, yoga). It's safe to shower or bathe normally, and use the restroom as you normally would. However, do not place anything inside the vagina (no sex, no douching). Do not perform nipple stimulation while the balloon is in place.

When to call Labor & Delivery:

Please call right away if you experience any of the following:

- Heavy vaginal bleeding
- Watery fluid leaking from your vagina (this could indicate your bag of water is broken)
- Strong uterine contractions every 4-5 minutes for more than an hour
- Severe pain of any type
- Fever of 100.4 degrees or over, or chills/severe body aches
- You don't feel the baby moving normally
- Any other new symptom that concerns you

You can call UF Health Labor & Delivery 24/7 at 352-265-0034. Let the nurse know you are doing outpatient cervical ripening!

Self-Care in Early Labor

In the early stages of labor, you may experience backaches, pelvic cramping, and even moderate intensity contractions. The following strategies may help to soothe you and to pass the time while also promoting rest to help save your energy for labor:

- Distract your mind & body with gentle activity like going for a walk, doing yoga, cleaning the house or playing with your other children
- Have close friends or family over to visit
- Watch a movie or show, perhaps while sitting on a birth ball or doing gentle stretches
- Warm the tender spots with a heating pad or hot water bottle. Take a warm bath or shower; warm water helps your body relax and eases the pain of contractions. If you have a bathtub, try lying on your side on towels or a non-stick mat and pour warm water over yourself or have someone else pour water over you
- Slow, steady rhythmic breathing exercises can be relaxing and distracting. Deep breathing exercises can also reduce nausea and dizziness
- Massage and pressure on aching spots can help to block pain. Often counter-pressure or pushing firmly against a sore muscle/back/hips provides relief. Soothe the area with a warm towel and use lotion or oil to help your hands move easily across your skin
- Try changing positions. Often this simple strategy feels better than you anticipate. Try laying on both sides, sitting, sitting forward with hands on knees, squatting, hands & knees, elbows (on a pillow) & knees, and rocking back & forth in any position. Use pillows or a birthing ball to aim position changes
- Meditation may help manage pain by focusing your mind on a certain object, picture or sound instead of on the discomfort. There are many guided meditations available online or on free medication & mindfulness apps
- Guided imagery also can help to focus your mind away from discomfort. You may find some helpful recordings online or on free mindfulness & meditations apps. You can also simply close your eyes and choose a favorite place or memory to imagine: focus on all the tiny details of color, smell, sounds, textures, the air. You can play soft music or sounds to help you feel like you're really there.

APPENDIX D: Post-procedure safety checklist

- ☐ Patient observed for 10 minutes post-procedure. Contact responsible provider for:
 - Heavy vaginal bleeding
 - Concern for ROM
 - Significant discomfort that does not quickly improve
 - Syncope or presyncope
 - Any other acute concerns about patient or fetal wellbeing
- ☐ FHR documented post-procedure: Rate _____
- ☐ Post-procedure patient handout provided and reviewed
- ☐ Labor induction scheduling confirmed and charge nurse notified that patient has begun outpatient cervical ripening