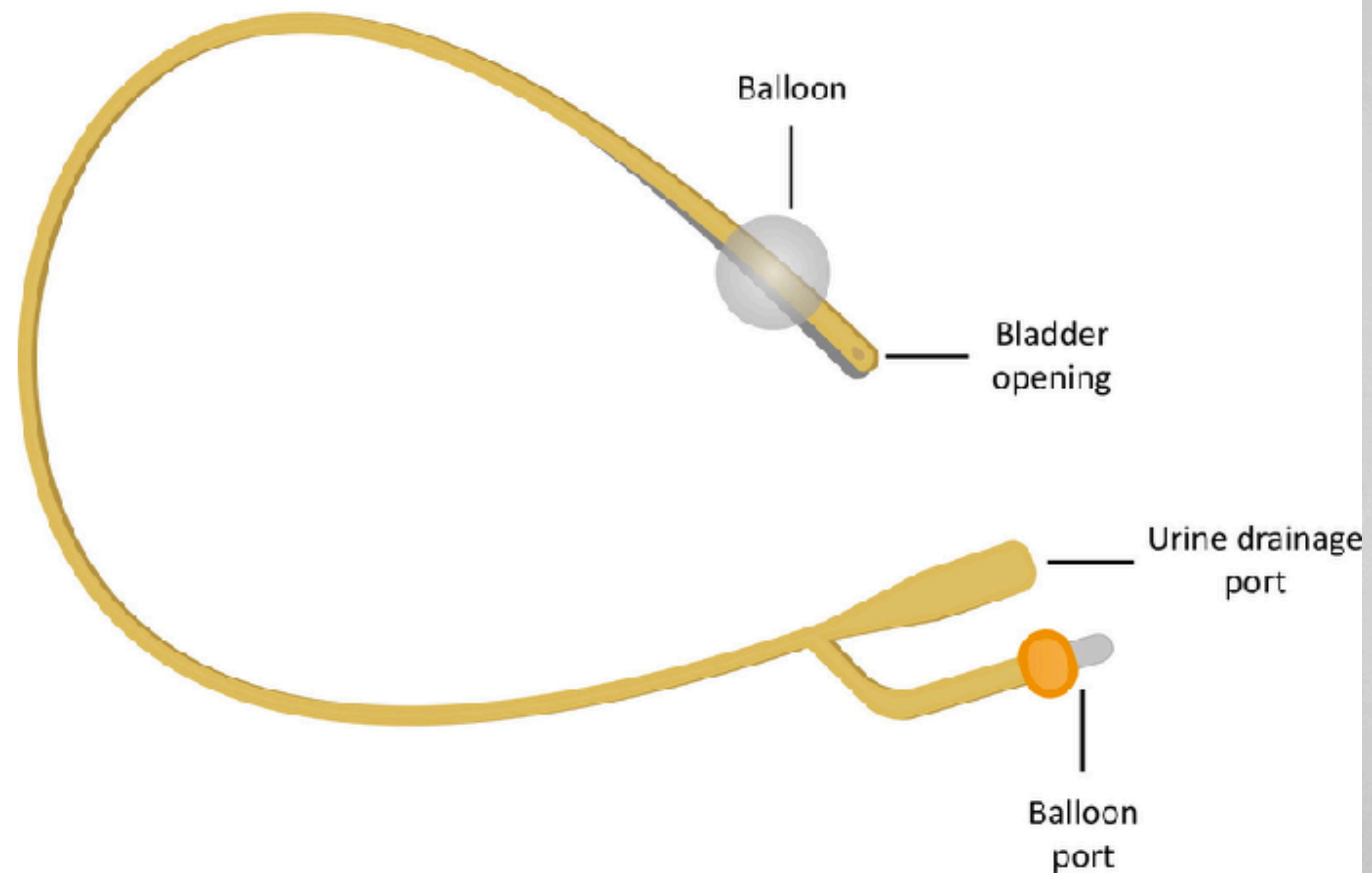
Skills Review: Foley Catheter

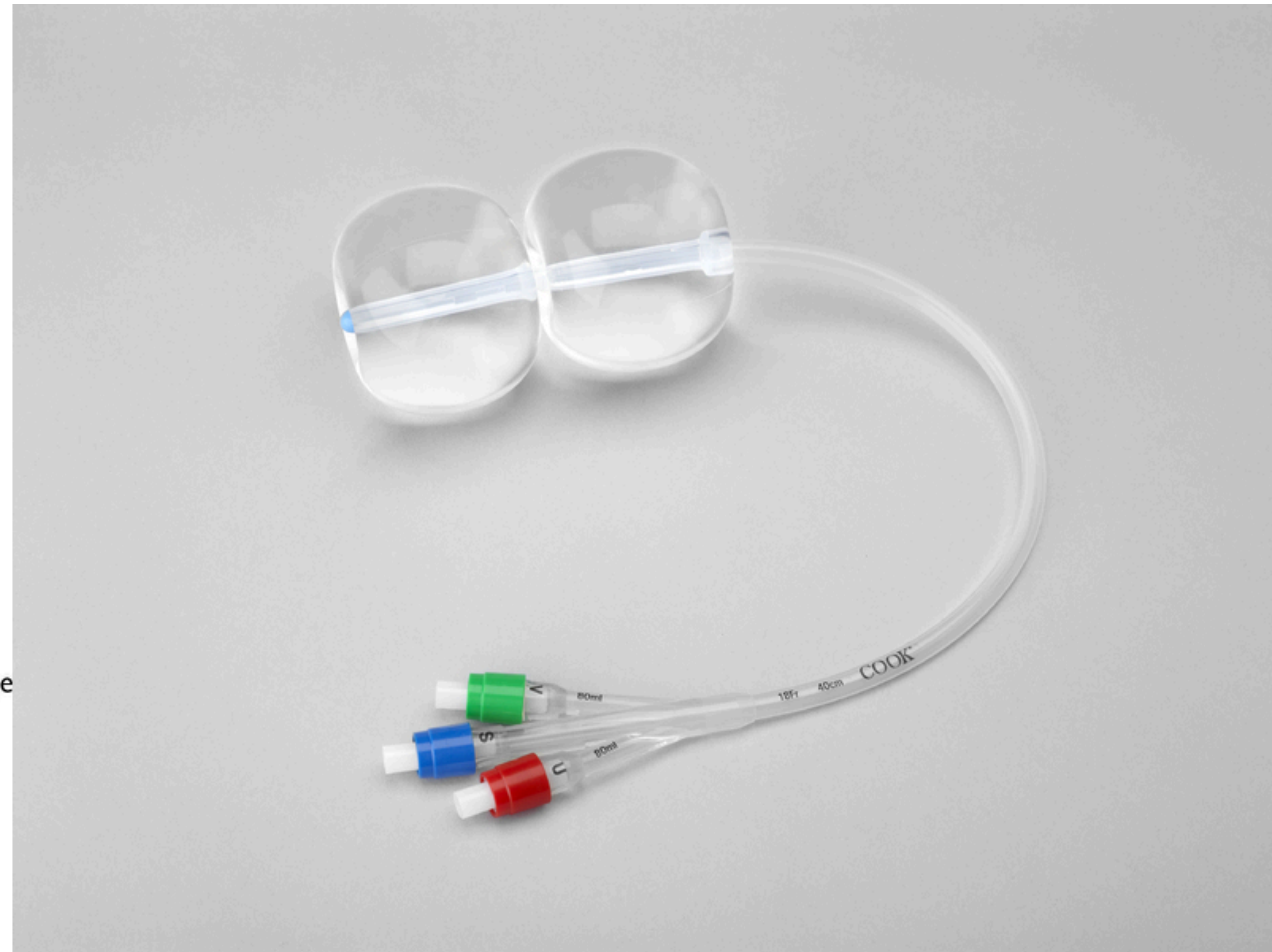
Tool for Cervical Ripening/Induction

What is a Foley?

- A foley is traditionally used for bladder catheterization.
- It is a long tube with a small balloon at the end, which can be filled with sterile water or saline to create pressure on the cervix and encourage cervical ripening. This is an off-label use!
- A Cook's Catheter is designed specifically for this purpose and has two balloons, rather than one. One balloon places pressure on the inner os, the second places pressure on the outer os.

Foley vs Cook's





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How Does it Work?

- The filled balloon places pressure on the cervix, which encourages dilation and effacement. The pressure falls between the bag of waters and the cervix, which helps encourage the cervix to thin out and dilate.

- The process of inserting a foley catheter, as well as the proper placement, releases prostaglandins by stimulating the space between the bag of waters and the cervical os. Think of this stimulation as a membrane sweep on steroids!

- The cervix will typically dilate to approximately 3-4cm during the time the foley is in.

- Helps with cervical ripening, or *preparing* the cervix for induction. It is not considered an induction on its own, but rather a first step towards inducing labor.

When might we use one?

- When induction or encouragement of labor is clinically indicated
- Favorable conditions are present: Full-term, vertex confirmed, head engaged in the pelvis, some small amount of dilation present
- When delivery is indicated, but the cervix is not yet favorable enough for major measures, such as AROM or castor oil
- Discussion: what specific situations would inspire you to recommend a foley?

Why or Why Not?

- What are the benefits to using a foley bulb for cervical ripening?
- What are the risks to using a foley bulb?

Benefits

- Non-pharmacologic method, safe to be performed outside of hospital
- Promotes cervical effacement and dilation to make other induction methods more effective
- Statistically effective: 94% of patients had a “favorable” cervix after 12 hours of use**; average of 3.3-5.3 point increase in Bishop score
- Evidence shows no increased risk to baby or FHTs (especially when compared with other methods of induction, such as castor oil)
- Easily removable by parent, offering them more control and comfort

Risks

- Increased risk of infection (Not statistically significantly higher than vaginal exams or membrane sweeps)
- PROM or ROM
- Discomfort or pain to birthing parent (Most common risk/side effect)
- Uterine irritability/tachysystole (Note: Evidence shows significantly decreased risk than pharmacological methods of cervical ripening)
- Spotting or vaginal bleeding
- Disruption of the placenta (if low-lying)

Contraindications

- What are true contraindications to using a Foley catheter?
- What are some situations where the Foley is not contraindicated, but may not be the best choice? How do you decide?

Contraindications

- **True Contraindications:**
  - Non-vertex presentation
  - Ruptured membranes
  - Suspected maternal infection
  - Non-reassuring fetal heart tones or tracing
  - Anytime where a vaginal birth is not indicated (active herpes outbreak, placenta previa, etc)
- **Relative Contraindications:**
  - Polyhydramnios
  - GBS+
  - Low-lying placenta

Foley Use in TOLAC

- This is a debated topic, but what does the evidence say?
- Preferred to pharmacologic or herbal options that may be more likely to cause hypersystole or uterine hypertonicity.
- Current studies are limited, but show an increase risk of uterine rupture *only when combined with pharmacological methods, such as misoprostol*. When use of foley alone is examined, there is no statistically significant difference in uterine rupture.

Supplies Needed

- 1 Foley or Cook’s Catheter
- 10, 20, or 30 ml needle-less syringes (luer lock)
- Alcohol swabs
- Povidone/betadine
- Sterile water or Saline (30-60ml)
- Sterile gloves
- Sterile field or drape
- IV or paper tape
- Sterile lube
- Sterile speculum* (Optional)
- Sterile ring forceps or clamps* (Optional)

Procedure

- Gather supplies, wash hands, don gloves while preparing syringes
- Draw up sterile water or NaCl into syringes (We want a total of 30-60ml of fluid, so consider: 2 x 30ml, 3 x 20ml, 4 x 10ml)
- Discuss procedure and obtain full informed consent
- Perform sterile vaginal exam (with optional membrane sweep) to assess cervix and favorability
- Obtain vital signs, auscultate FHTs. Consider AAT or NST prior to placement.
- If using a speculum: place speculum into vaginal canal and visualize the cervix. Thread the tube of the foley catheter through the speculum and gently into the cervix.
- If **not** using a speculum, place the end of the foley bulb between two fingers and guide the tube into the vagina and up into the cervix. Thread it approximately 1-2 inches into the cervix. STOP if you feel resistance.
- Use alcohol wipes to sterilize the ends of the catheter before placing sterile fluid
- Use pre-drawn syringes to slowly fill the balloon. This will take 30-60ml of fluid. Use your hand to confirm placement inside of the cervix - the balloon should fall between the fetal head and the cervix, not **inside** the cervix or vagina.
- Place gentle, downward traction on the catheter to ensure the balloon is putting pressure on the cervix (pull gently downward).
- Tape catheter tube to the client's leg. Allow for a bit of slack, but curve the end upward to avoid back flow.

Procedure Demonstration

- https://www.youtube.com/watch?v=CV4yZNnav5s
- https://www.youtube.com/watch?v=I2Wmv_To0P4

When and How to Remove It

- The bulb may fall out spontaneously, which typically indicates the client is dilated to at least 3 centimeters

- If the client is in severe discomfort, you can walk them through removal: I recommend removing it while sitting on the toilet. After emptying their bladder, instruct them to cough 1-2 times as they gently pull down on the catheter. It should come out with ease. If they feel resistance, they should stop.

- At 12-24 hours after placement (most evidence is based on a 12 hour removal, but up to 24 hours is considered safe).

Warnings/Emergencies

- Advise your client to call you immediately if they experience:
  - Decreased fetal movement (not passing kick counts)
  - Extreme fetal movement that may indicate a change to breech position
  - Frank vaginal bleeding (like a period or greater)
  - Strong, painful, rhythmic, or frequent uterine contractions
  - ROM

Informed Consent

- Consider having a written informed consent document for Foley insertion. Review this document and have your client sign it prior to beginning the procedure. It may include:
  - Why you are recommending the procedure
  - Benefits of the procedure
  - Risks of the procedure
  - Alternatives to the procedure
  - Any specific questions they may have

Discussion!

- Are Foleys legal in your state?
- Does your preceptor use a Foley for induction?
- What are your experiences with Foley catheters for cervical ripening?