

## PICO QUESTION:

In women undergoing induction of labor, how does the use of castor oil compared to those who do not utilize castor oil affect the method of delivery?



castor\_oil\_esp\_castor\_oil.png (1024x1024) (ah18c.com)

## BACKGROUND:

- Castor oil is made from the *Ricinus communis* plant and commonly used as a laxative (DeMaria et al., 2018)
- Labor is an expensive and challenging process (Gilad et al., 2018; Okoro et al., 2019)
- Labor Induction is defined as the “stimulation of uterine contractions during pregnancy before labor begins on its own to achieve a vaginal birth” (Mayo Clinic, 2020 para 2)
- Induction rates are “35.5% in Sri Lanka, 24.5% in the United States, and 6.8 to 33% in Europe” (Marconi, 2019, para 2).
- Castor oil is an affordable, natural alternative to other induction methods

# Castor Oil and the Induction of Labor

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Articles	Description	Results
Castor oil as a natural alternative to labor induction: A retrospective study by DeMaria et al., 2018.	<b>A level VI, retrospective descriptive study</b> analyzing 323 women who were given a castor oil cocktail to induce labor and its impact on the method of delivery.	81.4% of women gave birth vaginally at the birthing center after being given castor oil. The remaining women were taken to the hospital due to labor complications. Roughly half of the women taking to the hospital delivered via a caesarean section (DeMaria et al., 2018).
Effectiveness of castor oil in preventing post-term pregnancy in low resource setting: A randomized controlled trial by Okoro et al., 2019.	<b>A level II, randomized controlled trial</b> studied two groups, one of which was given castor oil while the other was not. The sample consisted of women at 40-41 weeks gestation who came in for a labor induction. The study was conducted in a low resource setting to see the effects of castor oil on labor induction.	The studied showed that the rate caesarean sections was indifferent between the two groups and the method of delivery was similar between the two groups (Okoro et al., 2019).
Castor oil for induction of labor in post-date pregnancies: A randomized controlled trial by Gilad et al., 2017.	<b>A level II, randomized controlled trial</b> studied two groups in the outpatient setting, one utilized sunflower oil for the induction of labor while the other used castor oil. The women studied were between 40 and 41 weeks of gestation. The study sought to identify the effects of castor oil on labor induction and the prevention of post term pregnancy.	The article found that multiparous women experienced higher rates of successful labor induction when compared to primiparous women. Primiparous women were more likely to have a longer labor resulting in a caesarean section (Gilad et al., 2017).
Castor oil for induction of labour: A retrospective study by Neri et al., 2018.	<b>A level VI, retrospective study</b> researching the efficacy of the use of castor oil for labor induction. The research was conducted over the course of five years on low-risk pregnant women.	The women treated with castor oil had a higher incidence of vaginal delivery and a lower incidence of caesarean section. The 60 mL of castor oil utilized to induce labor was associated with spontaneous onset of labor (Neri et al., 2018).

## RESULTS:

- From the four studies, the answer to the PICO question was inconclusive.
- More research is needed regarding the use of castor oil for the induction of labor



## APPLICATION:

- Before castor oil can be used in the mainstream healthcare, more inclusive studies need to be completed
- Natural alternatives to labor induction should be explored and advocated for by nurses to allow for holistic nursing care.
- Patients should be educated on all options including side effects, benefits, and risks.