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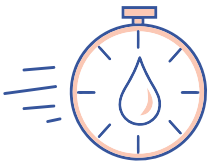

Evidence on: Prelabor Rupture of Membranes (PROM) at Term

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Question: What is PROM?

Answer: Prelabor or "premature" rupture of membranes (PROM) happens when a person's water breaks before the start of labor contractions. Term PROM is when the water breaks before labor at ≥37 weeks of pregnancy. Preterm PROM, or PPROM, occurs before 37 weeks of pregnancy. In this handout, we are focusing on *term* PROM.

Question: How common is term PROM?

Answer: Researchers have found that about 1 in 13 women experience term PROM.[1] Term PROM is more likely if you have vaginal checks at the end of pregnancy, and it is a potential side effect of membrane stripping.[2,3] Most people go into labor on their own soon after their water breaks; around 79% of people go into labor within 12 hours and 95% go into labor within 24 hours. It may take longer for first time mothers to go into labor after their water breaks.[4]

Question: What is the evidence on inducing labor for term PROM versus waiting for labor to start on its own?

Answer: The large "Term PROM" study by Hannah et al.[5] randomly assigned over 5,000 people with term PROM to one of four groups: immediate induction of labor with (1) Pitocin or (2) prostaglandin E2 gel, or waiting for labor to start for up to four days followed by induction with (3) Pitocin or (4) prostaglandin E2 gel if needed.

There were no differences in Cesarean rates or newborn infection rates between the induction groups and the waiting for labor groups. However, mothers immediately induced with Pitocin were less likely to develop *chorioamnionitis* (also known as *chorio*), an inflammation of the membranes due to infection, compared to those who waited up to four days before being induced with Pitocin (4% versus 8.6%). There were no significant differences in rates of chorio between people immediately induced with prostaglandins compared to those who waited for labor for up to four days before inducing with prostaglandins (6.2% versus 7.8%). This study is limited because it took place during a time period when mothers were not regularly screened and treated for Group B Strep–a major cause of chorio.

A Cochrane review[4] combined the large Term PROM study with 22 other randomized trials (total of 8,615 participants). The researchers found low quality evidence that people immediately induced after term PROM were less likely to experience maternal infections and appeared to have no increase in the risk of Cesarean. Their babies were less likely to need antibiotics after birth and less likely to be admitted to the NICU, and mothers and babies had shorter hospital stays. There were no differences between groups in the risk of serious maternal infection, definite newborn infection, or perinatal mortality (a combined measure of stillbirth or newborn death).

Regardless of whether someone has an induction or chooses to wait for spontaneous labor, researchers have found that it's very important to avoid vaginal exams as much as possible, because they increase the risk of infection for mother and baby.[6]

Question: What's the bottom line?

Answer: Having labor induced with Pitocin for term PROM may lower your chances of experiencing maternal infection, but does not have an effect on the Cesarean rate or newborn infections. People who experience term PROM should be counseled about the potential benefits and harms of both induction and waiting for labor to begin, so that they can make the choice that is best for their unique situation, taking into account the family's values, preferences, and Group B Strep status.

> **"Ways to lower maternal infection include induction, avoiding vaginal exams, and treating Group B Strep."**

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4. Middleton, P., Shepherd, E., Flenady, V., et al. (2017). Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more). Cochrane Database of Systematic Reviews, Issue 1. Art. No.: CD005302.
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