



Evidence that Empowers!

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Question: Why do newborns sometimes receive eye ointment immediately after birth?

Answer: Eye ointment is given to newborns to prevent pink eye in the first month of life, called *ophthalmia neonatorum* (ON). The ointment is meant to kill bacteria in the eye—mainly gonorrhea, a sexually transmitted infection. If left untreated, pink eye from gonorrhea can cause serious eye damage and blindness in as little as 24 hours.

Question: What causes newborn pink eye?

Answer: Pink eye can be caused by viruses, bacteria, chemicals, and blocked tear ducts. The most common cause of newborn pink eye is chlamydia, a sexually transmitted infection. The most serious type of newborn pink eye is from gonorrhea, which now causes less than 1% of cases. Pseudomonas bacteria can also cause severe eye infections, mostly occurring in intensive care units. Other bacteria (like staph and strep) from the mother, hospital, or home environment cause 30%-50% of cases—these cases are easily treated and not serious.

Question: Is erythromycin eye ointment effective at preventing newborn pink eye?

Answer: Researchers have found that erythromycin is about 80% effective at preventing pink eye from gonorrhea and might also offer some protection against pink eye from chlamydia. Evidence suggests that erythromycin might be effective at reducing overall bacteria in the eye and protect against pink eye from staph bacteria. However, the growing problem of antibiotic resistance (with gonorrhea, staph, and strep) means that erythromycin is probably less effective at preventing newborn pink eye today.

Question: Are there any other options?

Answer: There are other ways to prevent newborn pink eye.

- The pregnant person can be screened for chlamydia and gonorrhea and treated for a positive test result with antibiotics, along with the sexual partner(s)
- Eye drops of the mother's first milk have been shown to reduce newborn pink eye from staph bacteria.

- The mother could follow a wait-and-see approach, in which antibiotics are used only when necessary to treat an infection. Parents who decline eye ointment should seek immediate treatment for pus-producing pink eye.

Benefits of Erythromycin Eye Ointment:

- Has been shown to help protect against newborn pink eye from gonorrhea
- May offer some protection against less serious types of newborn pink eye from chlamydia and other bacteria picked up in the hospital and home environment, like staph
- Helps protect the baby if the mother had a negative screening test, but then got a sexually transmitted infection (such as due to a partner's infidelity)

Risks of Erythromycin Eye Ointment:

- Eye irritation, called chemical pink eye, can occur
- Blurred vision could interfere with bonding by disrupting early eye gazing between the baby and parents
- Erythromycin is only 80% effective at preventing newborn pink eye from gonorrhea and is probably less effective now due to growing bacterial resistance
- Group B Strep bacteria are becoming resistant to erythromycin, and there are also signs of resistance among staph bacteria

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“ Given the fact that other options can be used to safely prevent and treat newborn pink eye, parents should have the right to accept or decline routine eye ointment.”

1. American Academy of Pediatrics (2018). In: Kimberlin, D. W., Brady, M. T., Jackson, M. A., eds. Red Book: 2018 Report of the Committee on Infectious Diseases.
2. Darling, E. K. and H. McDonald (2010). "A meta-analysis of the efficacy of ocular prophylactic agents used for the prevention of gonococcal and chlamydial ophthalmia neonatorum." *J Midwifery Womens Health* 55(4): 319-327.
3. Kapoor VS, Whyte R, Vedula SS. Protocol: Interventions for preventing ophthalmia neonatorum. *Cochrane Database of Systematic Reviews* 2016, Issue 9. Art. No.: CD001862.

