

# Conjunctivitis

McKenzie Pediatrics (November 2000)

## What Is "Pink Eye"?

The term "pink eye", means many things to many people, but it is not a medical term. The correct word for this condition is Conjunctivitis, an inflammation of the conjunctiva, the transparent covering of the eyeball and the inner eyelids. It is very common, and there are several different types, each with many causes.

## What Are Causes Of Red or Pink Eye?

Most red or pink eyes are caused by infections. Other possible causes include allergies, corneal abrasions, foreign bodies, and crying!

## What Is Viral Conjunctivitis?

Most conjunctivitis in school-aged children are caused by viruses. They almost always resolve without treatment, usually within 7 days or less, without permanent damage. The most common viruses to cause conjunctivitis are Adenoviruses, of which there are many different types. Often, though not always, the child will also have an ongoing Upper Respiratory Infection ("Cold"). The symptoms of viral conjunctivitis might include:

- \* Eye Discomfort (though not pain)
- \* Watery Eyes
- \* Sensation of a Foreign Object In Eye
- \* One or Both Eyes Red or Pink
- \* Either No Discharge, or Whitish-Yellow
- \* Occasional Light-Sensitivity

The child's vision and pupils should not be affected by viral conjunctivitis. Treatment is supportive (see later section). The infection is contagious, but mostly to direct contact of any discharge. Since most viral conjunctivitis has associated "cold" symptoms, the child has likely already been contagious through their nasal secretions!

## What Is Bacterial Conjunctivitis?

This is the most common type of conjunctivitis in pre-school aged children. It rarely causes permanent damage. The bacteria that most often cause conjunctivitis are Haemophilus influenza non-typeable, and streptococcus pneumoniae, the same bacteria that are the most common causes of ear and sinus infections. The symptoms of bacterial conjunctivitis include:

- \* Eye Discomfort (though rarely pain)
- \* Usually Less Watery Than Viral
- \* Matting of Eyelids Upon Awakening
- \* One (1/4<sup>th</sup>) or Both (3/4ths) Eyes Affected
- \* Yellow-Green or Green Discharge
- \* Eyes Possibly Draining Even While Awake

Again, the child's vision and pupils should not be affected. Treatment is with a topical antibiotic, or just an oral antibiotic if there is also an ear or sinus infection. Topical antibiotic *ointments* are best in infants, especially since most purulent eye discharge in infants is caused from an *infected tear duct*, rather than a case of conjunctivitis!

### What Is Allergic Conjunctivitis?

This type of "pinkeye" differs from viral and bacterial infections in that both eyes are *always* pink or red, there is *never* pain, the discharge is stringy and mucoid, and that the eyes are *itchy*. Causes include environmental pollens and spores, tobacco smoke, wood smoke, air pollution, swimming pool chlorine, perfumes, soaps, shampoos, and touching the eyes with dirty fingers (as kids often do). A variety of over-the-counter (Allerest, Opcon A, et al) and prescription (Patanol, Livostin) medications are available for symptomatic relief of allergic conjunctivitis. Frequent warm water rinses are important to cleanse the eyes of the offending allergen.

### When Do I Worry?

Reasons to schedule an office appointment for a pink or red eye include:

- \* No Change After 7 Days Of Treatment
- \* Increased Discharge After 3 Days Of Meds
- \* "Pinkeye" In An Infant Age 0-2 Months
- \* Entire Outer Eyelid(s) Red (not just pink)
- \* Trouble Seeing From Eye(s)
- \* Bulging Eye
- \* Ongoing Cold Sores, *Then* Pink Eye
- \* An Injury To The Eye
- \* Severe Pain in the Eye(s)
- \* Earache with "Pinkeye"
- \* Irregular Pupil Shape

### What Are The Treatments For Conjunctivitis?

In a school-aged child with a pink eye, and no thick yellow or green discharge, the only therapy is warm water rinses as often as needed for comfort. Over-the-counter drops seldom help, but can be tried for up to 3 days (Visine, Murine, OcuClear, ClearEyes et al). Do not use these products if there has been an eye injury. Unfortunately, schools often do not allow children back unless they are on antibiotics, despite the fact that most cases of conjunctivitis in school-aged children are caused by viruses, which cannot be treated by antibiotics!

For bacterial conjunctivitis, topical antibiotic drops, or an ointment, will be called in, unless an office visit is needed for one of the above-mentioned reasons. Effective brands include Gentamicin Drops, Tobramycin Drops, Polytrim Drops, Ciloxan Drops, and Ocuflox Drops. All are instilled every 4 hours while awake (usually about 3-4 times per day), and should be used for at least 24 hours longer than it takes to clear the discharge. However, if the discharge hasn't improved *at all* after 72 hours, or the red/pink eye last more than 7 days, call our office. Topical ointments include Erythromycin, and Garamycin, and the instructions are the same. These work best in cases of tear duct infection (Dacrocystitis) or eyelid edge infections (Blepharitis).

Before instilling antibiotics, remove all pus using a warm-water soaked cotton ball. Then pull down the lower eyelid and instill 1 drop towards the outer corner of the eye. If a strong blink occurs, and you think the drop didn't go in, a second drop can be instilled. The first few doses *may* sting, but seldom more than 1 minute. In most cases, the discharge is gone within 24-48 hours, and the redness by 4-6 days. The child may go back to school, pre-school, or daycare after receiving 24 hours of treatment.

No herbal remedies have been studied for use in instilling in a child's eye. Please avoid doing so!