



## Vision Alert

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**May/June 2007**

### **Serious Eye Infection Linked to Contact Lens Solution**

Health officials from the Centers for Disease Control and Prevention and the Food and Drug Administration are currently investigating over 130 reports that an eye infection called *Acanthamoeba* keratitis has been potentially linked to the AMO with Complete MoisturePlus brand contact lens solution.

Most recently, AMO announced a voluntary recall of the Complete MoisturePlus brand contact lens solution. Although there is no evidence of contamination or a manufacturing problem, NSVC advises you to immediately stop using the contact lens solution, to discard all remaining Complete MoisturePlus solution and use an alternative cleaning or disinfecting product until the exact cause of these infections is determined. The Food and Drug Administration (FDA) and the Center for Disease Control (CDC) have instructed any contact lens wearers to immediately discontinue use of Complete Moisture Plus, discard all supplies of the solution, discard all contact lenses and cases that have come in contact with the solution.

We urge you to contact our offices at (847) 412-0311 or (847) 823-8283 should you have any questions or concerns. Also contact our offices immediately if you have any suspicions or concerns about any abnormal eye and vision conditions you may be experiencing.

In the meantime, please know that contact lenses remain an effective form of vision correction when properly prescribed by an eye doctor and cleaned and stored according to a doctor's instructions.

**Q: What is *Acanthamoeba* and am I at risk?**

A: *Acanthamoeba* is a parasite common to water and soil. It is relatively rare with only 1-2 cases per million contact lens wearers each year in the United States. It exists in two forms, either a cyst or active infection, and is very difficult to kill. Co-infection with a bacterial keratitis is common both in the lens case and on the cornea, complicating prevention, diagnosis and treatment. *Acanthamoeba* keratitis may lead to vision loss with some patients requiring a corneal transplant.

It is highly unlikely since the infection is so rare that you are at risk, but if you are experiencing any problems, such as redness, irritation or tearing, you should consult your doctor of optometry immediately.

**Q: I have used AMO Complete® MoisturePlus™ for many years, why is it being recalled?**

A: AMO is taking this action as a precaution because of reports of a rare, but serious, eye infection, *Acanthamoeba* keratitis. Consumers who wear soft contact lenses should stop using Complete® MoisturePlus™ and discard all partially-used or unopened bottles. Additionally, the CDC recommends discarding and replacing contact lenses and lens cases exposed to the Complete® MoisturePlus™ solution.



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**Q: What solution should I use instead of Complete® MoisturePlus™?**

A: While a disproportionate number of the CDC reported cases of *Acanthamoeba* keratitis involved the AMO Complete® MoisturePlus™ solution, 40 percent of cases involved other contact lens solutions or other factors. A name brand solution is preferred, however, you should work with your doctor to select a new FDA-approved solution that will best fit your needs and provide lens/solution compatibility. Each lens care product is unique. Additionally, most solutions are approved for use without rubbing; however, ***we are recommending that patients rub their lenses to enhance cleaning for additional safety.***

When switching solutions, we recommend patients book a follow-up appointment to examine the response a patient's eyes have to the new solution.

**Q: Can I prevent *Acanthamoeba* keratitis?**

A: *Acanthamoeba* keratitis requires contamination; therefore the best treatment is prevention. In addition, regardless of which cleaning/disinfecting solution consumers use, contact lens wearers should take extra precautions with lens hygiene habits. According to the American Optometric Association, clean and safe handling of contact lenses is one of the most important measures Americans can take to protect their sight.

**Q: Can your doctors at NSVC treat this infection? If so, how?**

A: Depending upon the severity, we may treat *Acanthamoeba* keratitis using certain medications. However, some patients, especially those where proper treatment has been delayed, may experience severe infection and a significant loss of vision, resulting in the need for a corneal transplant. In those instances, our doctors would refer patients to a corneal specialist. NSVC has close relationships with a number of highly qualified corneal specialists.

**Q: How would I know if I had an *Acanthamoeba* infection?**

A: The symptoms of *Acanthamoeba* keratitis can be very similar to those of other more common eye infections and may include:

- A red, (frequently) painful eye infection—especially if the patient reports that it is not improving with treatment.
- Foreign body sensation, tearing, light sensitivity, and blurred vision.
- Red, irritated eyes lasting for an unusually long period of time after removal of contact lenses.



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**Q: How widespread is the infection?**

A: Investigations are ongoing to determine the extent of this infection. The first case in the United States was reported in 1973, according to the Centers for Disease Control and Prevention. As of May 29, 2007, 138 cases of suspected *Acanthamoeba* keratitis are under investigation by the CDC and public health authorities around the United States. Federal and state health officials have interviewed 46 of those patients. Of the 39 who wore soft contact lenses, 21 reported using the Complete® MoisturePlus™ brand manufactured by Advanced Medical Optics.

**Q: Is it contagious?**

A: Acanthamoeba keratitis is contagious in the sense that it is a micro organism that is transferred to the eye by a contaminated contact lens. It is not contagious directly from person to person. Contact lenses should never be shared between patients.

**Q: Who is most susceptible to this infection?**

A: Consumers who wear soft contact lenses should be especially mindful to practice proper contact lens hygiene. Of highest risk are those contact lens wearers who have exposed their eyes to water while wearing soft contact lenses (such as while swimming, hot tubs, tap water contact lens exposure, etc.).

**Q: Is it curable? Or is the damage permanent?**

A: The infection can be treated a number of ways, including topical medications, and with proper care, damage can be reversed. In other cases, a corneal transplant may be necessary.

#### ***Acanthamoeba* KERATITIS PREVENTION & COMPLIANCE INFORMATION**

Key Symptoms include:

- A red, (frequently) painful eye infection—especially if the patient reports that it is not improving with treatment
- Keratitis (corneal inflammation) symptoms such as foreign body sensation, tearing, light sensitivity, and blurred vision
- Red, irritated eyes lasting for an unusually long period of time after removal of contact lenses



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**Key Risk Factors** for infection in contact lens wearers include:

- Use of tap water in cleaning and disinfecting the contact lenses and/or lens case
- Swimming with contact lenses, especially in fresh water lakes and rivers *Acanthamoeba* keratitis has also been elicited from virtually all water sources, from pools to hot tubs to showers. (38% of the cases reported swimming in their lenses)
- Failure to follow lens care instructions/ poor compliance

**Clinical Guidelines** from the American Optometric Association for the prevention of *Acanthamoeba* keratitis include:

- Only use sterile contact lens solutions in accordance to doctor recommendation
- Rub and rinse the surface of the contact lens before storing
- Everyday, mechanically scrub (clean washcloth or new toothbrush) the inside and the outside of the lens case using sterile contact lens disinfecting solution
- Never use tap water to wash or store contact lenses
- Never use tap water to wash or store lens cases
  - Note: tap water must be greater than or equal to 70° C (158° F) to kill *Acanthamoeba* cysts
  - Water boils at 110°C (212°F) so boiling a lens case is effective at sterilizing it; running through the dishwasher may not be hot enough and may have contamination from other debris
  - Microwaving a contact lens cases for three minutes will sterilize lens cases
- Air dry your contact lens case when not in use
  - After rinsing with sterile contact lens solution, the caps should remain off and the case covered with a clean towel
- Replace the lens case at a maximum of three months, preferably monthly
- Do not reuse lens care solutions
- Remove contact lenses before swimming or entering a hot tub and avoid wearing contact lenses while showering
  - If lenses happen to be worn when swimming, insert a wetting drop to re-hydrate the lens and remove as soon as possible
  - If lenses must be worn, wear water tight goggles and remove immediately after swimming
  - Absolutely no sleeping in lenses after swimming
- Never swap lenses with someone else
- Never put contact lenses in the mouth



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#### **Recommendations for Contact Lens Wearers from the American Optometric Association**

1. Always wash your hands before handling contact lenses.
2. Carefully and regularly clean contact lenses, as directed by your NSVC doctor. If recommended, rub the contact lenses with fingers and rinse thoroughly before soaking lenses overnight in sufficient multi-purpose solution to completely cover the lens.
3. Store lenses in the proper lens storage case and replace the case at a minimum of every three months. Clean the case after each use, and keep it open and dry between cleanings.
4. Use only products recommended by your NSVC doctor to clean and disinfect your lenses. Saline solution and rewetting drops are not designed to disinfect lenses.
5. Only fresh solution should be used to clean and store contact lenses. Never re-use old solution. Contact lens solution must be changed according to the manufacturer's recommendations, even if the lenses are not used daily.
6. Always follow the recommended contact lens replacement schedule prescribed by your NSVC.
7. Remove contact lenses before swimming or entering a hot tub.
8. See your NSVC doctor for your regularly scheduled contact lens and eye examinations.