



**Public Health**  
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**From:** Jane Drummond, Director  
Missouri Department of Health and Senior Services  
**Through:** Kansas City, Missouri Health Department  
**KCHD HAN Number:** KC 009-07 (**Update**)  
**Date:** 08/02/2007  
**Subject:** ***Acanthamoeba* Keratitis Associated with Soft Contact Lens Solution**

On June 1, 2007, the Kansas City, Missouri Health Department (KCHD), in conjunction with the Missouri Department of Health and Senior Services (DHSS) issued a Health Alert Communication entitled "Early Report of Serious Eye Infections Associated With Soft Contact Lens Solution." It provided information on the occurrence of cases of *Acanthamoeba* keratitis (AK) in multiple states (including Missouri), which were associated with the use of Advanced Medical Optics (AMO) Complete<sup>®</sup> MoisturePlus<sup>™</sup> multi-purpose solution. As a result of this association, the product was recalled by the manufacturer.

AK is not a reportable disease in Missouri (although, as indicated below, medical providers and laboratories are asked to report suspected or diagnosed cases to public health officials). DHSS is aware of at least 2 AK cases which have been diagnosed in the state in 2007, but the actual incidence of the disease is not known. Of the 2 known cases in 2007, the most recent had onset of symptoms in early May.

On July 31, 2007, the Centers for Disease Control and Prevention (CDC) issued an update on the situation (see page 2) which stated that AK cases are continuing to be reported. In at least four of these cases, the individual had continued to use AMO Complete<sup>®</sup> MoisturePlus<sup>™</sup> multi-purpose contact lens solution after the product had been recalled. Apparently many contact lens users do not know of the recall, and may still be using the product. CDC believes that millions of bottles of the solution, purchased prior to the recall, may still be in the homes of contact lens wearers.

**Clinicians evaluating contact lens users with symptoms of eye pain or redness, tearing, decreased visual acuity, discharge, sensitivity to light, or foreign body sensation should consider AK and refer the patient to an ophthalmologist, if appropriate.** Early diagnosis can greatly improve treatment efficacy.

Diagnosis of AK requires a high degree of suspicion, especially in a contact lens wearer with a recent diagnosis of another form of keratitis, such as herpes simplex virus keratitis, who is not responding to therapy. Diagnosis of AK is based on clinical presentation and isolation of organisms from corneal culture or detection of trophozoites and/or cysts on histopathology. However, a negative culture does not necessarily rule out *Acanthamoeba* infection. Confocal microscopy and polymerase chain reaction assays to detect *Acanthamoeba* can also assist with diagnosis. Clinicians should consider obtaining clinical specimens (e.g., corneal scrapings) for culture before initiating treatment.

Clinicians and microbiology laboratories should report suspected or diagnosed cases of AK to the Kansas City, Missouri Health Department or their local public health agency. *Acanthamoeba* isolates should be submitted to the Missouri State Public Health Laboratory (MSPHL) according to instructions provided by MSPHL (see the form on page 3).

For more information, go to CDC's *Acanthamoeba* Infection website at:  
<http://www.cdc.gov/ncidod/dpd/parasites/acanthamoeba/>

## Check Your Medicine Cabinet: Consumer Knowledge of Contact Lens Solution Recall

Centers for Disease Control and Prevention (CDC)  
July 31, 2007

CDC continues to receive reports from ophthalmologists that cases of *Acanthamoeba* keratitis, a potentially blinding infection, are occurring in the United States.

Multiple cases of infection caused by *Acanthamoeba* have occurred since May 26, 2007, the day the FDA announced the outbreak and the manufacturer issued a recall of the implicated multipurpose contact lens solution. The contact lens user in at least four of these cases continued to use AMO Complete® MoisturePlus™ multi-purpose contact lens solution and subsequently developed symptoms after the recall.

CDC has also learned during the interview stage of its investigation of the outbreak that many contact lens users do not know that AMO Complete® MoisturePlus™ multi-purpose contact lens solution has been recalled from the market because of its association with *Acanthamoeba* keratitis.

Healthy contact lens users from across the U.S. were interviewed by CDC as part of the ongoing investigation. They were asked if they had heard of a recalled contact lens solution and, if so, could they identify the name of that solution. Among the 151 people interviewed:

- 52.3% (79/151) were not aware of the recall
- Among those who were aware of the recall, only 26.8% (19/72) could correctly name the recalled product
- Of 15 people who reported using AMO Complete® MoisturePlus™ multi-purpose contact lens solution in April 2007, 80% (12/15) were still unaware of the recall and were still using the product

While FDA moved swiftly and worked with the manufacturer to enact this recall, millions of bottles of the solution, purchased prior to the recall, might still be in the homes of contact lens wearers. We are concerned that this lack of awareness among the general public – as well as eye care providers – is leading to continued use of the product by those who had purchased it prior to the recall. (It is often sold in bulk packaging at warehouse stores and bottles have a long expiration date).

Help is being sought to get the word out:

1. Check your medicine cabinet for AMO Complete® MoisturePlus™ multipurpose contact lens solution.
2. Stop using the product immediately and contact the company at 1-888-899-9183 or on the AMO Web site for instructions on what to do with unused solution;
3. Discard all soft contact lenses used with AMO Complete® MoisturePlus™;
4. Discard all contact lens storage cases used with AMO Complete® MoisturePlus™;
5. Consult your eye care provider about choosing an alternative contact lens solution;
6. Visit your eye care provider if you experience any signs of eye infection, including eye pain or redness, blurred vision, sensitivity to light, sensation of something in the eye, or excessive tearing and;
7. Visit CDC's [Acanthamoeba](http://www.cdc.gov/ncidod/dpd/parasites/acanthamoeba/) Web site [<http://www.cdc.gov/ncidod/dpd/parasites/acanthamoeba/>] for further instructions on contact lens use and other information.

## Missouri Department of Health and Senior Services

### *Acanthamoeba* Keratitis Specimen Submission Form

#### Instructions for Specimen Submission

1. Contact **Steve Gladbach** at the Missouri State Public Health Laboratory (MSPHL) for specific instructions prior to collecting or shipping *Acanthamoeba* specimens. (573-751-0633)
2. Label all specimens with the MSPHL-provided Identification Number and collection date.
3. Examples of specimens to collect:  
Please check all that apply:
  - Culture plate (Date of specimen collection: \_\_\_\_/\_\_\_\_/\_\_\_\_)
  - Corneal scrapings (Date of specimen collection: \_\_\_\_/\_\_\_\_/\_\_\_\_)
  - Corneal biopsy (Date of specimen collection: \_\_\_\_/\_\_\_\_/\_\_\_\_)
  - Contact lenses
  - Contact lens case
  - Contact lens solution
  - Other (please specify): \_\_\_\_\_
4. Cultures and environmental specimens (e.g., contact lenses, lens cases, and lens solution) should be shipped at room temperature.
5. Corneal scrapings and biopsies should be shipped at room temperature in saline solution without preservatives. Specimens that were previously frozen should be shipped frozen on dry ice.
6. All specimens should be placed in protective shipping holders with absorbent material to prevent leakage or breakage.
7. The primary specimen holder must be placed in a secondary protective container for shipping, and then shipped as directed by MSPHL.

Contact Person at MSPHL: Steve Gladbach

Phone: 573-751-0633

Email: [stephen.gladbach@dhss.mo.gov](mailto:stephen.gladbach@dhss.mo.gov)

Mailing address: Missouri State Public Health Laboratory,  
101 North Chestnut, Jefferson City, MO 65101

#### Specimen Information

ID Number (Assigned by MSPHL): \_\_\_\_\_

(\*\*This should be the same State/Local Study ID Number recorded on the Case Report Form\*\*)

Date specimen(s) sent to MSPHL: \_\_\_\_/\_\_\_\_/\_\_\_\_