



# Speaking of Safety

The Laboratory Safety Institute's Newsletter  
Winter 2016-17 Volume 25 Number 3

*Making Health, Safety, and the Environment an  
Integral and Important Part of Education, Work, and Life*

## In the Blink of an Eye

With invention of contact lenses in 1887 came a new concern. What will happen if toxic or corrosive chemicals are splashed in the eyes of a contact lens wearer?

Conventional wisdom for decades was that capillary action will draw the liquid under the lens. We demonstrated this on overhead projectors.

A second concern was that the contact lens would fuse to the eyeball. A third was that precious time would be wasted trying to remove the lens.

Employers therefore prohibited the use of contact lenses in the lab and other chemical environments.

In the 80's, I began to question the conventional wisdom. I could find no evidence that this was anything but speculation. Then, I happened to attend a lab safety presentation given by Norm Steere, the author/ editor of the CRC Handbook of Laboratory Safety (1st and 2nd editions).

Norm told us that, in fact, there were no published studies showing that contact lens wearers were at any greater risk than those who were not. And, he informed us that rabbits had been trained to wear contact lenses. When chemicals were splashed in the bunnies' eyes, the eye with the lens fared no worse than the eye without the lens. I concluded, thinking back to the days of taking canaries into coal mines, that it might not be a bad idea to have at least one

contact lens wearer in every lab. If they start to rub their eyes or express concern about discomfort, it's time for everyone to leave.

I was a member of the American Chemical Society's (ACS) Council Committee on Chemical Safety (CCS). This is one of several policy recommending committees of the society.

Eileen Segal was also a member at that time. I suggested that she look further into this. She did a great job of thoroughly researching the topic and published two articles in the ACS Journal of Chemical Health and Safety on the myths and misunderstandings.

Eileen invited an ophthalmologist from the US Navy to discuss the issues with the committee. When the vote was taken, the CCS reversed its position.

In the mid-nineties, the committee agreed, not quite unanimously that the use of contact lenses should be permitted in labs with the use of chemical splash goggles or unvented goggles.

My personal opinion is that it should be sufficient to use all the eye protection that any one else would be expected to use under the same circumstances.

Within ten years, CCS was joined by NIOSH which published a Current Intelligent Bulletin on the Use of Contact Lenses in Chemical Environments. The American Optometric Association and

Prevent Blindness America issued similar policy statements.

The CCS essentially apologized for its original position as being based on myths and hearsay.

"Safety is a judgment about the acceptability of risk." William Lowrance said that in his book, Of Acceptable Risk. If you want to be more conservative, that's ok. . **JAK**

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## About LSI

This Spring, LSI will be offering a new course: *Applied Chemistry for EHS Professionals*. We welcome suggestions of topics and concepts which you would like to see included. The course was requested by the EHS staff from a Virginia institution.

We are discussing the development of a certification program for Lab Safety Officers, CLSO. There will be more information in the next issue. This certification was requested by the Organizing Committee of LabTech 2017. The biennial conference will be held in Doha, Qatar next Fall.

In addition to the prescheduled courses in the US and Canada, LSI has plans to provide courses in Saudi Arabia for SATORP, the King Abdulaziz University, KAUST, and Saudi Aramco.

Last November, LSI provided a two-day lab safety for 25 participants at the Chemindix Conference in Manama, Bahrain. In December, we conducted a three-day lab safety course at the US Naval Research Center in California  
... JAK

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