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### *Health & Safety Committee*

#### **Vision Care in Conservation**

Accurate vision is a crucial part of the conservation toolbox. Caring for and protecting that vision is just as important to good practice as honing a sharp edge or keeping a clean brush. Maintaining a safe environment for our vision relies not only on appropriate PPE use, but also on being observant of common sense practices.

The following considerations are important in evaluating and maintaining eye health:

- Headaches, eye-ache, and unusual fatigue can be a sign that you may need corrective lenses or your prescription updated. Additionally, ensuring that both your microscope eyepieces are clear and free of debris, and that you are working with adequate lighting, can go a long way to preventing unnecessary strain on your eyes. When possible, alternating use of video display terminals along with an ergonomically correct microscope setup can help reduce working time and better accommodate the use of prescription glasses as seen in figure 1.
- Contact lenses do NOT provide ocular protection from hazards such as particles, bioaerosol droplets, chemicals, and radiant energy. Think of them simply as an extension of your eye; the emphasis must be on using the proper PPE to protect your eyes and contacts from the hazards in your work. While past recommendations have been to forbid the use of contact lenses in the chemical environment, agencies like the National Institute for Occupational Safety and Health (NIOSH) now regard their use as safe, as long as recommended safety guidelines are met and contact lens use is not prohibited by specific chemical regulations or as noted on a chemical's Safety Data Sheet (NIOSH2005). [See accompanying PPE Eye/Face Protection Article for more details on contact lens use]
- Vision related medical treatment requires special care for your eyes. In the first few weeks of recovery, patients can experience visual anomalies that could make the everyday work of the conservator difficult. Corrective procedures like LASIK or cataract surgery both require a degree of recovery time and leave your eyes, at least briefly, sensitive to your environment and use. While you may be able to drive the next day, ophthalmologists still recommend at least 24-48 hours of recovery before returning to focused tasks like computer work or similar. During your recovery your eyes will benefit from extra lubrication and be particularly susceptible to drying out. Ensuring that you avoid tasks which can lead to dry-eye or other irritation during the first few weeks can do much to ensure a successful recovery. Before undergoing any type of eye procedure, be sure to

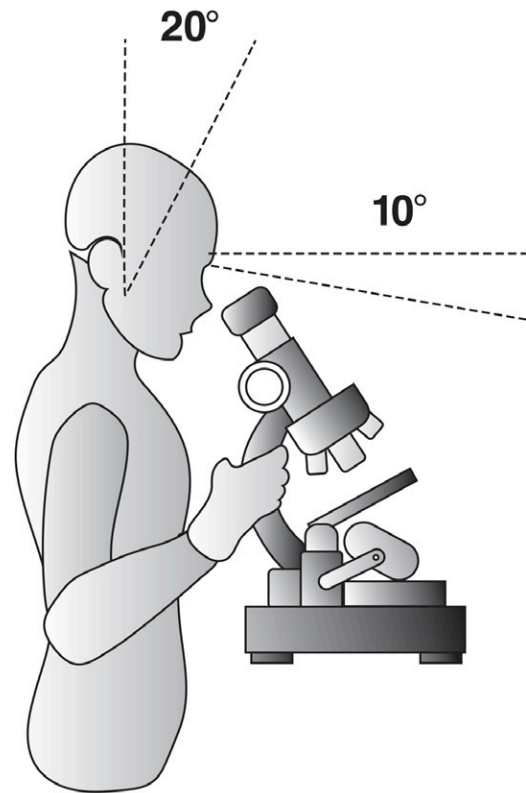


Fig. 1

discuss with your doctor the type of work you do and any possible side effects of the procedure that might affect your future activities (i.e. blurry vision, headaches, dizziness).

- Personal ergonomic needs can also play an important role in personal safety. Focused work over extended hours can lead to fatigue, which can lead to accidents either harmful to you or the objects you work with. Whether working at a microscope or inside goggles, it is important to take regular breaks and refocus your eyes on something else in your space. The Occupational Safety and Health Administration (OSHA) recommends that you look away from focused work every 15 minutes and refocus your eyes on something else in the distance. Extended periods of time in areas with constant air movement, like fume-hoods, can exacerbate dry-eye symptoms and lead to irritation. Remembering to take these breaks, perhaps with a timer, will give your eyes a very important recovery period and ensure longer, more effective working sessions.

- Community responsibilities extend to sanitary conditions as well. Many labs utilize shared equipment, so it is very important to the continued health and safety of fellow staff that everyone observe clean practices. Forms of conjunctivitis, both bacterial and viral, are communicable through shared equipment and can remain contagious for several days to weeks. Those wearing contact lenses are especially vulnerable to bacterial infection caused by unsanitary conditions and should be particularly vigilant about not only their own hygiene, but also of the cleanliness of their equipment. Microscopes, safety goggles, OptiVISORS (binocular headband magnifiers), and even camera viewfinders should be disinfected per the manufacturers' specifications. While the Centers for Disease Control (CDC) recommends an alcohol

based disinfectant that contains at least 60% alcohol, it should be noted that special coatings, plastics, and optics can be susceptible to damage due to improper cleaning, so be sure to check with your suppliers for the recommended specifications.

As important as it is to protect yourselves, we all have a duty to maintain a safe environment for our colleagues. One important way to achieve this is to maintain an awareness of space; ensuring that those working around you are also observing safe habits or maintaining safe distances can do a lot to prevent injury from accidents. Communicating these dangers should be an important and regular part of treatment setup. Signage, staff email announcements, and simple verbal questions are very effective in getting the word out that dangerous activities are or will be underway in common space. Further, all staff should receive training on emergency shower and eye-wash usage, and someone on staff should be designated to be sure it is clean, functions well, and remains accessible. [See accompanying PPE Eye/Face Protection Article for more details]

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## RESOURCES

American Optometric Association (AOA). *Protecting your eyes at work*. Accessed November 05, 2015. <http://www.aoa.org/patients-and-public/caring-for-your-vision/protecting-your-vision>

American Optometric Association (AOA). *Conjunctivitis*. Accessed November 05, 2015, <http://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/conjunctivitis>

Canadian Centre for Occupational Health and Safety (CCHOS). *Contact Lenses at Work*. Accessed October 22, 2015 [http://www.ccohs.ca/oshanswers/prevention/contact\\_len.html](http://www.ccohs.ca/oshanswers/prevention/contact_len.html)

Centers for Disease Control and Prevention. *Preventing the Spread of Conjunctivitis*. Accessed October 22, 2015. <http://www.cdc.gov/conjunctivitis/about/prevention.html>

Goldberg, L., D. Kushel, N. Odegaard, and A. Sigel. 2010. Conservation. In *Health & Safety for Museum Professionals*, ed. C. Hawks et al. New York: Society for the Preservation of Natural History Collections. 569-607.

Hovander O.D, M. 2015. Personal communication. University Vision Clinic. Seattle WA.

LASIK Vision Institute. *LASIK Laser Eye Surgery Results*. Accessed 22 October 2015. <http://www.lasikvisioninstitute.com/lasik-results/>

Makos, K., D. C. Ertel and Michael McCann. 2010. Occupational Hazard Control. In *Health & Safety for Museum Professionals*, ed. C. Hawks et al. New York: Society for the Preservation of Natural History Collections. 127-178.

Occupational Health & Safety Administration (OSHA). *Laboratory Safety Ergonomics for the Prevention of Musculoskeletal Disorders*. Accessed October 22, 2015. <https://www.osha.gov/Publications/laboratory/OSHAfactsheet-laboratory-safety-ergonomics.pdf>

Occupational Health & Safety Administration (OSHA). *Laboratory Safety Guidance*. Accessed October 22, 2015. <https://www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf>

[www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf](https://www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf)

Occupational Health & Safety Administration (OSHA). *Eye and Face Protection E-tool*. Accessed October 22, 2015. <https://www.osha.gov/SLTC/etools/eyeandface/faqs.html>

Rath COT, S. 2015. Personal Communication. University of Washington Eye Institute. Seattle, WA.

Shulte PH.D, P.A., H. W. Ahlers J.D., L.L Jackson Ph.D., B.D. Malit M.D., and D.M. Votaw. Contact Lens Use in a Chemical Environment. 2005. NIOSH (National Institute for Occupational Safety and Health). <http://www.cdc.gov/niosh/docs/2005-139/pdfs/2005-139.pdf>

Thompson M.D., V. How Long is the LASIK Recovery Time. 2015. All About Vision. Accessed October 22, 2015. <http://www.allaboutvision.com/visionsurgery/faq-recovery-time.htm>

U.S. Department of Energy National Laboratory. *Microscopy and Ergonomics: Recommendations and Simple Tips for Adjusting your Microscope Workstation*. Accessed November 02, 2015. <http://www2.lbl.gov/lsd/Safety/assets/Microscopy%20and%20Ergonomics%20v2.pdf>

University of California, Davis. *Microscope Ergonomics*. Access October 22, 2015. <http://safetyservices.ucdavis.edu/ps/ebm/le/microscope-ergonomics>

Waldhausen RN3, J. 2015. Personal Communication. University of Washington Medical Center. Seattle, WA.

## PPE III: WORKING ON A JOB REQUIRING EYE OR FACE PROTECTION?

### HERE'S WHAT YOU NEED TO KNOW!

Work hazards are minimized through engineering controls or eliminated altogether through safer methods or non-toxic materials. But sometimes, Personal Protective Equipment (PPE) must be worn as well. PPE can serve as an effective safety barrier as long as it is selected to protect the worker against the specific hazards (See "Job Hazard Analysis," *AIC News*, Vol. 39, No. 6, Nov. 2014, pp.13-16). PPE has to be properly maintained and worn because if it fails, you are exposed to the full force of the hazard. Remember: PPE only protects the worker wearing it, not other bystanders in the area. Even in museum work, industrial hazards exist and industrial controls must be enforced.

### Eye and Face Protection

Eye and face protection is required when employees are exposed to flying objects, particles, or other impact hazards; burns from sparks or molten metal; splashes from hazardous liquid chemicals; irritation from gases and vapors; or hazardous light radiation. OSHA eTool website has an excellent training tool and guide to help you select the proper eye/face protection based on the task hazard (OSHA 2015).

### SAFETY GLASSES

Basic safety glasses (spectacles) offer frontal impact protection only, and will not protect the eyes from mists, dusts, gases, vapors, or liquid splashes. The addition of side shields offers additional but limited eye protection from lateral hazards.