

Workplace Health and Safety Bulletin



Guideline for the Use of Contact Lenses in Industry

Contact lenses are used by a number of people as a means of correcting vision and/or compensating for eye abnormalities. For many people, the reason for preferring contact lenses is cosmetic, however, for others contact lenses may provide a better correction than glasses.

Despite the popularity of contact lenses, there has been some resistance to allowing their use in certain industrial settings. Perhaps some of this resistance can be attributed to not wanting to try anything new in high hazard settings. However, various scare stories about the hazards of contact lenses in the workplace have occurred from time to time. In one story, workers supposedly had their contact lenses “welded” to their corneas by electric or welding arcs, causing blindness. It is not possible for such an event to occur; it would require the violation of basic laws of physics, as experts in the field of vision care have shown. Stories that contact lenses freeze to eyes have been discounted by a Canadian arctic study showing that no such incidents occurred between -20 and -80 degrees Fahrenheit. The contact lens did in fact insulate the cornea. Events of this type have never been verified, yet appear to gain some degree of credence in the workplace.

Many arguments have been advanced as to why contact lenses should not be used in some industrial settings. In dusty environments, particles may become trapped behind the lenses and cause scratching of the cornea.



Chemicals splashed into the eyes of contact lens wearers may be more difficult to wash out; soft contact lenses may absorb some chemicals providing a continued source of eye irritation. Some chemicals may also damage the lens and lead to the need for premature replacement.



Accidental loss of a contact lens may occur causing a sudden change in vision, which under some circumstances could create a safety hazard. When contact lenses are intentionally removed, blurred vision may ensue for some time afterwards; again under some circumstances this could result in a safety hazard. Concern has been raised about the suitability of contact lenses under a mask, with some believing that this may interfere with oxygen supply to the cornea. The facial contractions required to put on or take off a full face piece may cause a hard contact lens to pop out. A final argument advanced against the use of contact lenses, is that under some emergency conditions they may be difficult to remove.

If the above objections to contact lenses in the workplace are critically reviewed, it may be seen that several deal more with wearer comfort and care of the lens than with safety. As such, it may be more appropriate to allow individuals to make their own decision regarding use of contact lenses at work, rather than totally banning them. Some of the true concerns raised may not be important in all industrial settings. For example, a contact lens that accidentally pops out may pose a safety hazard by reducing visual acuity. However, there are also many non-industrial situations where this may pose a hazard, for example, driving in high density traffic. In spite of this, use of contact lenses while driving is not prohibited. When considering whether or not contact lenses will pose a safety hazard, one should evaluate whether the hazard is of real importance or relatively minor, and whether the risk of occurrence is significant, or whether it is only a remote possibility under an unusual set of circumstances.

The possibility that contact lens wearers run the risk of a more serious injury than non-wearers in the event of a foreign body or chemical in the eye is worthy of consideration. While this may seem plausible, there is surprisingly little evidence to support it. Some studies have concluded that a contact lens serves to protect rather than injure the eye. This should not be taken to mean that contact lenses serve as an acceptable substitute for protective eye wear. Safety glasses or goggles, where required, must be used by contact lens wearers and non-wearers alike.

Given the relative lack of documentation on harmful effects of wearing contact lenses in the workplace, it seems many companies may be reconsidering previous bans on wearing contacts. This may lead to a more reasonable and balanced approach where the risks and benefits of wearing contact lenses are considered on an individual basis. There may be some workplaces where contact lenses should still not be permitted. However, in many other cases, a more permissive approach may be taken. Ideally, a policy on whether individuals can wear contact lenses at work will be set only after consideration of all the relevant risks and benefits at the worksite.

References

-  Crossen, R.J., *Safety of contact lenses in industry*. Contact and Intraocular Lens Medical Journal, 3:28-29(1977).
-  Cullen, A.P., Chou, B.R. and Egan, D.J., *Industrial non-ionizing radiation and contact lenses*. Can J Pub Hlth, 73:251-254 (1982).
-  Dixon, W.X., *Contact lenses: Do they belong in the workplace?* Occupational Health and Safety, 36-39 (May/June 1978).
-  Guthrie, J. W., Seity, G.F., *An investigation of the chemical contact lenses problem*. J. Occup Med., 17:163-166 (1975).
-  Logar, N.D., *The truth about contacts and industrial eye accidents*. Contact Lens Forum, 3:15-21 (1978).
-  Mitchell, J. D. (ed), *Use of contact lenses in industry (reply to letter)*. J. Occup Med, 26:330 (1984).
-  Randolph, S.A. and Zavon, .R., *Guidelines for Contact Lens Use in Industry*. J Occup Med, 29:237-242 (1987).
-  Stones, I. and Spencer, G., *Contact lenses in the workplace: The pros and cons*. Canadian Centre for Occupational Health and Safety, Hamilton, ON 1985.
-  Blais, R., *Use of contact lenses in an industrial environment*. American College of Occupational and Environmental Medicine – Seminar. 1988.

Contact us:

Province-Wide Contact Centre

 Edmonton & surrounding area:
(780) 415-8690

 Throughout Alberta:
1-866-415-8690



Deaf or hearing impaired

- In Edmonton: (780) 427-9999

or

- 1-800-232-7215
throughout Alberta

Web Site



www.worksafely.org

Getting copies of OHS Act, Regulation & Code:

Queen's Printer



www.qp.gov.ab.ca



Edmonton (780) 427-4952

Workplace Health and Safety



<http://industry.alberta.ca/whs-ohs>

Call any Government of Alberta office toll-free
Dial 310-0000, then the area code and telephone number you want to reach

© 2008-2009, Government of Alberta, Employment and Immigration

This material may be used, reproduced, stored or transmitted for non-commercial purposes. The source of this material must be acknowledged when publishing or issuing it to others. This material is not to be used, reproduced, stored or transmitted for commercial purposes without written permission from the Government of Alberta, Employment and Immigration. This material is to be used for information purposes only no warranty express or implied is given as to the accuracy or the timeliness of the material presented. In case of any inconsistency between this document and the Occupational Health and Safety Legislation, the legislation will always prevail.