

COMMON HEALTH QUESTIONS RELATED TO MONOCHLORAMINE

24) Does **monochloramine** cause skin problems?

EPA believes that water disinfected with **monochloramine** that meets regulatory standards has no known or anticipated adverse health effects, including skin problems.

- Isolated cases of skin problems due to exposure to chloramines have been reported.¹
- Monochloramine has not been shown to be a cause or contributor to reported skin problems.
- CDC's investigation² of reports of monochloramine-related skin problems associated with drinking water use was unable to draw any conclusions about monochloramine and health effects.

Trichloramine, a chemical related to monochloramine that often forms in swimming pools, has been linked to skin problems.

- Trichloramine forms in swimming pools when chlorine reacts with ammonia from bodily fluids.
- Skin problems traceable to disinfected water are typically related to swimming pool use.³
- EPA continues to study and review research on disinfectants used in swimming pools.

People who believe that their skin problems are related to monochloramine should consult with their doctors.

- Skin problems are a common health issue, and it is often difficult to trace their causes.
- People who have skin problems should inform their doctors if they have been in a swimming pool recently.
- CDC's investigation² of reports of monochloramine-related skin problems associated with drinking water use was unable to draw any conclusions about monochloramine and health effects.

Additional Supporting Information:

1. Reported skin problems, such as eczema, due to chloramines are primarily associated with dermal antiseptic contact in occupational/hospital settings. The "Drinking Water Criteria Document for Chloramines" can be found at <http://www.epa.gov/ncea/pdfs/water/chloramine/dwchloramine.pdf>, ECAO-CIN-D002, March, 1994 and it includes more information on isolated health effects incidents. See question 1 for a discussion of the different types of chloramines.

2. CDC and EPA conducted a preliminary investigation of reports of monochloramine-related skin problems associated with drinking water. The investigation consisted of a questionnaire filled out by the people who had complained of health problems. The information collected can be used to help design future epidemiologic studies.

CDC's trip report can be found at:

http://healthvermont.gov/enviro/water/documents/CDC_Chloramines_report_011608.pdf

3. Improper pool maintenance can often lead to trichloramine formation. Some examples include: www.cdc.gov/niosh/hhe/reports/pdfs/2007-0163-3062.pdf and <http://www.cdc.gov/mmwr/PDF/wk/mm5636.pdf>.