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S.E.N.S.O.R.

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## Giving Advice about Workplace Hazards to Women of Reproductive Age

Concern about the potential for workplace hazards adversely affecting the viability of a pregnancy and/or causing a birth defect to the fetus is an important issue. It is a concern not only that obstetricians are asked to advise on but so many other health care providers involved with women of reproductive age. Given the large number of chemicals used in our society and the limited studies of reproductive health information for the majority of them, advice generally needs to be provided with a caveat about the uncertainty of the available health and toxicity data.

Three medical students, one each from Michigan State University, Oakland University and the University of Michigan addressed this issue as part of a summer internship program sponsored by the Michigan Occupational and Environmental Medical Association (MOEMA). They published a guideline to assist health care providers on sources of information to address work-related reproductive health issues in women in the *Journal of Occupational and Environmental Medicine*<sup>1</sup>.

What reproductive health-specific guidance is available across major occupational health authorities for common workplace hazards affecting pregnant and nursing workers?



There is a scarcity of standardized, hazard-specific occupational health guidance for pregnant and nursing workers.

Lithium, lead, heavy lifting, and extreme temperature each threaten reproductive health, yet guidance is varied.



We provide a consolidated reference of reproductive health guidance for pregnant and nursing workers.

**Pregnancy in the Workplace: Addressing Gaps in Reproductive Health-Specific Occupational Guidelines**

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**JOEM** Journal of Occupational and Environmental Medicine

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The students' objective was "to support the framework outlined in the statement [a 2016 American College of Occupational Medicine Guidance Document] by consolidating reproductive health-specific guidance and relevant literature to facilitate more efficient clinical decision-making"<sup>2</sup>.

The legal framework for employers addressing health issues of women of reproductive age are from the 1978 Pregnancy Discrimination Act, which requires employers to provide reasonable accommodations for pregnant employees and prohibits discrimination in matters of hiring, termination, and job assignment<sup>3</sup> and a 1991 Supreme Court decision that prohibited sex-specific fetal protection policies that exclude women from employment opportunities on the basis of potential pregnancy<sup>4</sup>.

The Supreme Court case involved a Michigan company that was not allowing women of reproductive age to work around lead unless they provided medical documentation that they were permanently unable to bear a child. The intent of the Supreme Court ruling was that workplace standards should be protective for all workers regardless of their sex or reproductive status. Accordingly, health care providers should understand that their role is to provide information and resources and request accommodations for their patients when the woman requests and the health care provider believes the accommodation is indicated.

As examples, the students evaluated the reproductive health effects of four potential workplace exposures, two with multiple studies (i.e., lead and heavy lifting) and two with limited studies (i.e., lithium and extreme temperature): 1) lead - extensive data on adverse reproductive effects<sup>5</sup>; 2) lithium – limited teratogenic data mostly derived from women using lithium as a medication<sup>6</sup>; 3) Heavy lifting – sufficient data on fetal death, premature delivery, and low birth weight for specific recommendation<sup>7</sup>; and 4) Heat – limited data<sup>8</sup>.

Table 1 shows the sources the students used to research specific substances. Depending on the exposure, a source may or may not have any information on its effect on reproductive outcome. An additional source to review is the Safety Data Sheet (SDS). Every chemical used in a US workplace must have an SDS available to workers. Also, SDSs are typically available on line if one knows the name of the product. SDSs are written by the manufacturer/distributor and are of varying quality and completeness. The absence of adverse reproductive health effects on the SDS does not mean the absence of adverse health effects but rather can be an oversight or that no studies on reproductive health have been performed.

Besides lack or insufficient health and/or toxicology studies, a major uncertainty is the level of exposure. How to correlate the dose given a rat in laboratory study or in the case of lithium how to correlate the dose of lithium used as a medication with a woman's exposure in a lithium battery factory.

Table 1. Sources for Information on Reproductive Health

<p>US Environmental Protection Agency. Guidelines for Reproductive Toxicity Risk Assessment: 1996; 56274-57322. Available at: <a href="https://www.epa.gov/risk/guidelines-reproductive-toxicity-risk-assessment">https://www.epa.gov/risk/guidelines-reproductive-toxicity-risk-assessment</a> EPA <a href="https://www.epa.gov/sites/default/files/2014-11/documents/guidelines_repro_toxicity.pdf">https://www.epa.gov/sites/default/files/2014-11/documents/guidelines_repro_toxicity.pdf</a> Accessed February 9, 2026</p>
<p>AFL-CIO. Women in the Professional Workforce [online]. 2025. Available at: <a href="https://www.dpeaflcio.org/factsheets/professional-union-women">https://www.dpeaflcio.org/factsheets/professional-union-women</a> Accessed February 9, 2026</p>
<p>Centers for Disease Control and Prevention. Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women. Atlanta, GA: US Department of Health and Human Services; 2010. Available at: <a href="http://govinfo.library.unt.edu/ota/Ota_4/DATA/1985/8521.PDF">http://govinfo.library.unt.edu/ota/Ota_4/DATA/1985/8521.PDF</a> Accessed February 9, 2026</p>
<p>Occupational Safety and Health Act. Occupational Safety and Health Administration; 1970. Available at: <a href="https://www.osha.gov/laws-regs/oshact/completeoshact">https://www.osha.gov/laws-regs/oshact/completeoshact</a> Accessed February 9, 2026 Or official PDF: <a href="https://www.osha.gov/sites/default/files/publications/OSHA2001.pdf">https://www.osha.gov/sites/default/files/publications/OSHA2001.pdf</a> Accessed February 9, 2026</p>
<p>National Regulatory Commission. Standards for Protection against Radiation. Section 20.1208: Dose Equivalent to an Embryo/Fetus. 56 FR 23396, May 21, 1991, as amended at 63 FR 39482, July 23, 1998. Available at: <a href="https://www.osha.gov/sites/default/files/publications/OSHA2001.pdf">https://www.osha.gov/sites/default/files/publications/OSHA2001.pdf</a> Accessed February 9, 2026</p>
<p>National Institute for Occupational Safety and Health (NIOSH). Reproductive Health and the Workplace. <a href="https://www.cdc.gov/niosh/reproductivehealth/prevention/?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/repro/">https://www.cdc.gov/niosh/reproductivehealth/prevention/?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/repro/</a> <a href="https://www.cdc.gov/niosh/reproductive-health/about/?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/repro/">https://www.cdc.gov/niosh/reproductive-health/about/?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/repro/</a> Accessed February 9, 2026</p>
<p>Teratogen Information System. <a href="https://pear-net.org/teris-2/">https://pear-net.org/teris-2/</a> Accessed February 9, 2026</p>
<p>US National Library of Medicine. TOXNET: Developmental and Reproductive Toxicology Database (DART). <a href="https://www.nlm.nih.gov/toxnet/index.html">https://www.nlm.nih.gov/toxnet/index.html</a> Accessed February 9, 2026</p>

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Much is unknown about the reproductive health effects of physical and chemical exposures. These resources provide framework to gather what is known and where there is good data make informed decisions. For the majority of exposures, advice to and decisions by women need to be made given the limited information available, which may mean different women will make different decisions regarding the need for accommodations.

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\*PS Remember to report all cases of occupational disease!

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