

JP-8

JP-8 is composed of hydrocarbons, benzene, and toluene, all of which cross into breastmilk. Flight line personnel, mechanics, fuel-handlers, and aircrew face exposure via inhalation of raw fuel vapors/exhaust, or topical exposure via splashed fuel on the skin. JP-8 exhaust inhalation is similar to exhaust levels from living near a freeway, topical exposure from splashed fuel is minor if washed off quickly, research to date shows little risk of breastmilk contamination from either source. Exposure to raw fuel vapors, in enclosed spaces such as fuel cells may cause headaches, dizziness, respiratory distress, and possible brain damage with high, long-term and repeated exposure. Fuel-cell technicians may need to consider weaning or a job transfer.

Lead

Lead is found in everything from ammunition to paint. Exposure is via inhalation or ingestion and accumulates in the bones. Lead is transported into breastmilk during breastfeeding, how much lead is transferred from mother to baby via breastmilk is unclear, and there is NO known safe dose of lead that is acceptable for infants. Exposure to lead results in anemia, brain damage and developmental delays. Individuals working in MOS's requiring daily, high-level exposure to lead may need to wean. Infrequent exposure to lead (firearm quals or training) can so do safely. If needed, a simple blood test can determine your lead levels.

Tear Gas

Tear gas or 2-chlorobenzalmalonitrile is inhaled and topically absorbed. It is too big to pass into breastmilk. There is no need to pump or dump your milk. Shower after exposure and change and/or launder your uniform.

Precautions

Visit your Occupational Health or Medical representative to determine the levels of exposure for various chemicals in your workplace. They can give you information about the HAZMAT, what kinds of protective gear you can use, and they can also give you a chit authorizing you to work in a less hazardous area if need be. You are responsible for using personal protective equipment, and following proper work practices. Here are some additional steps you can take to ensure you and your baby's safety:.

- Wash hands after contact with hazardous substances and before eating, drinking, breastfeeding, pumping, or handling your expressed milk.
- Prevent home contamination with the following steps:
 - Change out of contaminated clothing and shower with soap and water before going home.
 - Store street clothes in a separate area of the workplace to prevent contamination.
 - Wash work clothing separately from other laundry (at work if possible).
 - Avoid bringing contaminated clothing or other objects home. If work clothes must be brought home, transport them in a sealed plastic bag.

Hazardous materials are dangerous and your baby's health is important. If your job depends on you working with hazardous materials, you may make the decision to wean your baby. Be sure to make an informed decision and look at all your options. If you have specific questions regarding exposure to HAZMAT at your command you can call the ***Infant Risk Center*** at **(806) 352-2519** or contact an IBCLC for further information.

Information for breastfeeding military mothers



HAZMAT AND BREASTFEEDING

Hazardous materials are a fact of life in the military. Many job specialties within the military involve working with potentially harmful chemicals, such as fuels, solvents, pesticides, heavy metals, certain medical drugs and gases, as well as lead. During training scenarios, you may be subjected to tear gas; and if stationed overseas, you may be exposed to pathogens or biological/chemical warfare agents. Many of these hazardous materials can potentially be passed through breastmilk to your baby. This handout will give you an overview of the potential risks associated with HAZMAT exposure, how to weigh those risks, and precautions you can take to minimize your exposure. *****This is not a replacement for speaking with your Occupational Health representative or Medical.*****

Weighing the Risks

Exposure levels to HAZMAT at military worksites are monitored and kept within established safety limits for adults. However, some of these chemicals do concentrate in breastmilk and may exceed safe doses for infants, even though they are within safe levels for you. A few studies do show that high occupational exposures can have adverse health effects on breastfed infants. This does not mean that you cannot safely breastfeed while continuing your job in the military. It is important to weigh the risk of exposure and balance it against the substantial benefits of breastfeeding. When determining what the risk of exposure is for a certain hazardous material, it is important to look at the following: chemical characteristics, how the toxin transfers into milk, your age, and number of previously breastfed children. In addition there are a number of other questions to consider when weighing the risks of exposure to HAZMAT while breastfeeding:

- What is the probability of exposure to toxic substances in your workplace?
- What is the level of exposure (is it daily, once a week, once a quarter)?
- What is the route of exposure (ingestion, inhalation, topical)?
- What is the effect of the substance on your baby?
- How old is your baby?
- How often do you pump or breastfeed?
- Can you be reassigned to other job duties?
- Is there protective gear that you can wear to reduce exposure?
- What is your comfort level of exposure before you will decide to wean versus the known benefits of breastfeeding?

Except in some very unusual cases, your breastmilk, even contaminated, is still far better for your baby than the known hazards of formula. Furthermore, long-term breastfeeding has been found to be beneficial and able to potentially counterbalance the impact of exposure to harmful chemicals.

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The information contained in this handout is solely for general education and informational purposes only. Always seek the advice of your health care provider for any questions you may have regarding your or your infant's medical condition.