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Paint and Pregnancy

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to paint may increase the risk for birth defects above that background risk. This information should not take the place of medical care and advice from your healthcare professional.

What is paint?

Paint is made up of pigment particles (color) in a liquid base called the medium. There are two broad categories of paint: oil paints (oil/alkyd based medium) or latex paints (water based medium). Oil paints are thinned or cleaned with paint thinners. Latex paints are thinned or cleaned with water. Most household paints are latex. Oil paints are sometimes used for trim work (such as around doors) in homes. There are many other mixtures of paints used for industry, the arts, and hobbies. Years ago, lead and mercury were used in paint.

How would I be exposed to the chemicals in paint?

Exposure to paint can happen by:

- Inhalation (breathing in dust and vapors/fumes). Painters with a lot of exposure may experience symptoms such as nausea, headaches, or loss of appetite.
- Absorption (direct skin contact). Painters with a lot of exposure may experience allergic reactions on their skin or eye irritation.
- Ingestion (swallowing paint chips and dust).

Does the level of exposure (high versus low) to paint matter?

Like many other exposures, the amount of exposure is important. However, unlike medicines, the exact level of paint exposure is usually not known. In general, an ongoing exposure through a work setting would give a higher total exposure than a one-time household exposure. While smell is not a good measure of the level of exposure, symptoms such as nausea or headaches could indicate a higher exposure.

Will exposure to paint increase the risk to my pregnancy?

Studies looking at paint exposure during pregnancy have not had consistent results. Studies are hard to do because they are not able to measure the exact amount of paint to which each woman is exposed.

There have been reports of babies being born with problems when their mothers abused toluene-containing paint or glue “to get high” during their pregnancies. Toluene is a type of solvent used to thin paint. These children were sometimes born prematurely and had low birth weight, a small head size, and facial features similar to what is seen in children exposed to alcohol during pregnancy (fetal alcohol syndrome). These children also experienced developmental delays.

In these cases, the pregnant women were exposed to very high amounts of toluene – higher exposure than a hobby or professional painter would likely have.

I work as a painter. Should I be worried?

There is no concrete risk during pregnancy due to working as a painter, but lowering chemical exposure makes sense for both adult and pregnancy health.

It is difficult to draw firm conclusions with pregnancy studies on painters because the level of exposure is usually not known. Often the studies are based on self-report, and women who had pregnancy problems may be more likely to participate than women who had no pregnancy problems. This could lead to inaccurate results.

Of the components of paint, “organic solvents” have been most studied during pregnancy, but the term “organic solvents” is used for too many different chemicals for the results of these studies to be meaningful. These studies usually combine the outcomes of pregnancies of painters, printers, chemists, factory workers, and laboratory technicians, all who have varying and multiple chemical exposures. Based on these studies there is conflicting and weak evidence for a small increased risk of miscarriage and birth defects, with some studies showing no increase in risk. An occupational health specialist or industrial hygienist
may be able to offer specific ways to reduce your chemical exposure at work.

Is it okay to paint a room in my house during my pregnancy?

Household painting will likely result in a low level of exposure and is likely to be a low risk. A single study found no association with household paint fumes and premature birth or low birth weight in women reporting some exposure to paint in their homes. However, women who are pregnant or planning a pregnancy may still wish to take the following precautions:

- Be sure to work in a well-ventilated area with open windows.
- Wear protective clothing (gloves and long sleeves) to cover your skin.
- Do not eat or drink while painting.
- Consider wearing a respirator mask that filters vapors from paints and thinners (available at hardware stores).
- Consider having someone else to do the painting for you.

I live in an old home and am concerned about lead paint.

The U.S. federal government banned lead-based paint from housing in 1978. However, lead based paint may still be present in older homes, so pregnant women should avoid removing old paint because of the risk of lead exposure. You should never scrape, sand, or burn old paint because this puts higher concentrations of heavy metals (like lead), solvents, and other chemicals into the air.

If you need to remove lead paint from your home, have someone who is certified in lead removal remove old paint. Stay away from the area until the project is done and the area is properly cleaned.

For more information on lead exposure, please see the OTIS fact sheet Lead and Pregnancy.

What if I was exposed to paint and I breastfeed my baby?

At this time, little is known about exposure to paint during breastfeeding, but it is unlikely that typical low-level paint exposure would be a problem during breastfeeding. Be sure to discuss all your choices for breastfeeding with your healthcare provider.

Studies of paternal exposure to paint in the workplace have not had consistent results. Studies often look at job title alone, which is not a good way to measure exposure levels. It has been suggested but cannot be proven that men with occupational paint exposures have more fertility problems or a small increased risk for cancer in their children. However, there are also studies that have not proven a risk for these problems. Men who work with paint should wash their hands often and leave their work clothes and shoes at work so as not to bring home extra chemicals.

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Selected References:


If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.