Iron

This sheet is about exposure to iron in pregnancy and while breastfeeding. This information is based on available research studies. It should not take the place of medical care and advice from your healthcare provider.

What is iron?

Iron is a mineral that carries oxygen in red blood cells (called hemoglobin). Iron is an essential nutrient (a nutrient that the body cannot make). This means that people need to get iron from their diet or supplements. Iron can be found in meat, seafood, white and kidney beans, lentils, peas, spinach, nuts, and dried fruits. Some cereals and breads have iron added to them. Iron is also available as a dietary supplement. Iron in dietary supplements can come in different forms.

Not having enough iron can lead to iron deficiency anemia. Iron deficiency can cause symptoms such as tiredness, lack of energy, less ability to fight off germs and infections, and problems with memory and concentration. The World Health Organization (WHO) recommends that women who are pregnant get enough iron throughout their entire pregnancy. There are some health conditions that affect the level of iron that people need. Be sure to talk to your healthcare provider about what amounts of iron are recommended for you.

If you take iron, talk with your healthcare providers before making changes to how you take your supplement. Your healthcare providers can talk with you about the benefits of maintaining your nutrient levels and the risks of low nutrients during pregnancy. Talk with your healthcare providers about all supplements/vitamins that you take. Have the bottles or photos of the labels with you so that all ingredients and their recommended daily levels can be reviewed.

How much iron do I need during pregnancy?

The Recommended Dietary Allowance (RDA) is the average daily level of intake that is enough to meet the nutrient needs for most people. The Tolerable Upper Intake Level (UL) is the dose that people can start to have side effects. It is not recommended to take more than the RDA of iron unless you are doing so under the care of your healthcare provider to treat a condition.

	Recommended daily allowance (RDA)	Upper limit (UL)
Pregnant and age 14 to 18 years old	27 mg	45 mg
Breastfeeding and age 14-18 years old	10 mg	45 mg
Pregnant and age 19 years or older	27 mg	45 mg

Breastfeeding and age 19 years or older	9 mg	45 mg

When looking at daily intake, remember to count amounts from foods, drinks, and supplements. There are resources available online that list amounts of iron typically found in foods, such as the USDA National Nutrient Database, found here: https://www.nal.usda.gov/sites/default/files/page-files/iron.pdf. Labels on supplements will list the amount of iron in the product. Be sure to talk with your healthcare providers about your specific nutritional needs before, during, and after pregnancy.

I take iron. Can it make it harder for me to get pregnant?

Taking iron at the RDA and staying below the UL is not expected to make it harder to get pregnant. It is not known if taking more than the UL of iron or taking iron below the RDA can make it harder to get pregnant. One study among women with infertility caused by problems with ovulation (when the ovary releases an egg) reported that taking iron supplements near or below the UL was associated with lower chances of developing ovulation infertility. It is not clear if the women in this study were taking iron supplements because their iron levels were low, or for other reasons not related to the infertility.

Does taking iron increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Taking iron at the RDA and staying below the UL is not expected to increase the chance of miscarriage. There is no information on how an iron deficiency (having low levels of iron) might affect the chance of miscarriage in humans. An increased chance of miscarriage was reported in 2 studies of women who had iron intoxication (taking iron at levels 30 to 100 times more than the daily UL).

Does taking iron increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at research studies to try to understand if an exposure might increase the chance of birth defects in a pregnancy.

Taking iron at the RDA and staying below the UL is not expected to increase the chance of birth defects. There was no increased chance for birth defects reported in 6 studies with over 5,000 women taking iron at the RDA during pregnancy. One of these studies, which included 958 births, suggested that adequate levels of iron might have helped to lower the chance of birth defects.

Studies have not been done in humans to see if taking more than the UL of iron or taking iron below the RDA can increase the chance of birth defects.

Does taking iron in pregnancy increase the chance of other pregnancy-related problems?

Taking iron at the RDA and staying below the UL is not expected to increase the chance of other pregnancy-related problems, such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth).

It is not known if taking iron below the RDA during pregnancy increases the chance for pregnancy related problems. One study reported an increased chance for small for gestation age (birth weight lower than usual among infants of the same age) when the parent had low iron blood levels or anemia (problem where there is not enough red blood cells or hemoglobin). However, other studies did not report this same finding with low iron blood levels.

Studies have not been done in humans to see if taking more than the UL of iron can increase the chance of other pregnancy-related problems.

Does taking iron in pregnancy affect future behavior or learning for the child?

Taking iron at the RDA and staying below the UL is not expected to affect future behavior or learning for the child. Studies have not been done in humans to see if taking more than the UL of iron or taking iron below the RDA can increase the chance of behavior or learning issues for the child.

Breastfeeding while taking iron:

Iron is a typical part of breast milk. Women who are breastfeeding should continue to get the daily recommended amount of iron unless otherwise directed by their healthcare provider. The RDA for breastfeeding is different than pregnancy and can be found in the chart above. Women who are breastfeeding should talk to their healthcare provider about their specific nutritional needs before, during, and after breastfeeding. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man takes iron, could it affect fertility or increase the chance of birth defects?

Taking iron at the RDA and below the UL is not expected to affect a man's fertility (ability to get a woman pregnant) or increase the chance of birth defects. It is not known if taking more than the UL of iron or taking iron below the RDA can affect a man's fertility or increase the chance of birth defects. In 1 study, sperm motility (the ability for the sperm to "swim" to the egg) was lower in men with high levels of iron in their semen. Low sperm motility can make it harder to get a partner pregnant. One study is not enough to find a relationship between taking iron and male fertility. In general, exposures that men have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.