

Iodine-131

This sheet is about exposure to iodine-131 in pregnancy and while breastfeeding. This sheet will not cover environmental exposures that might occur due to accidents in nuclear plants or inappropriate handling of the radioactive iodine-131. This information should not take the place of medical care and advice from your healthcare providers.

What is iodine-131?

Iodine-131 (also known as I-131) is a radioisotope of iodine. Radioisotopes release radiation. Iodine-131 concentrates in the thyroid, and is used in medical diagnostic procedures, to treat thyroid cancer, and to remove the thyroid in people with hyperthyroidism (a condition in which the body makes too much thyroid hormone).

I received iodine-131 and now I would like to get pregnant. How long does the drug stay in my body?

People eliminate medications at different rates. In healthy adults, it takes up to 48 days, on average, for most of the iodine-131 to be gone from the body. Receiving iodine-131 can also cause short term changes in fertility. It has been suggested to postpone pregnancy for 6 to 12 months after receiving iodine-131, to give the radioisotope time to leave the body and to allow the thyroid hormones to stabilize.

Does receiving iodine-131 increase the chance for miscarriage in future pregnancies?

Miscarriage is common and can occur in any pregnancy for many different reasons. One study reported a higher chance for miscarriage in pregnancies that were conceived during the 12 months after exposure to iodine-131. A review article did not find a higher chance for miscarriage when iodine-131 was received before pregnancy.

Does receiving iodine-131 increase the chance of having a baby with a birth defect?

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. Most reports on women who received iodine-131 prior to a pregnancy showed no increase in the chance for birth defects.

Iodine-131 is avoided during pregnancy when possible. The developing baby can absorb radioactive iodine into their thyroid starting at about 10 weeks of pregnancy, and this can result in severe thyroid gland damage and thyroid hormone deficiency. Thyroid hormone is very important for the baby's development.

Could iodine-131 cause other pregnancy complications?

Most studies do not show an increase in pregnancy complications if the iodine-131 is received prior to the pregnancy. Use of iodine-131 during pregnancy is avoided when possible.

Does taking iodine-131 in pregnancy cause long-term problems in behavior or learning for the baby?

Based on the data available, it is not known if medical iodine-131 tests and treatments would directly cause behavior or learning issues. Iodine-131 is avoided during pregnancy when possible because iodine-131 can affect the baby's thyroid and thyroid hormone levels. Babies with too little thyroid hormone have an increased risk for developmental delays.

Can I breastfeed while taking iodine-131?

It has been recommended that breastfeeding be stopped if iodine-131 is given. Iodine-131 is concentrated in the breasts which could result in significant amounts in breastmilk. A breastfeeding child who is exposed to iodine-131 through milk could develop thyroid problems such as poor thyroid function, damage to the thyroid gland, and an increased chance for thyroid carcinoma. When possible, iodine-131 treatments and tests should wait until after the baby is weaned. In some cases where only small amounts of radioiodine are used, breastfeeding can be restarted when radioactivity counts return base level. This may be several weeks. Be sure to talk to your healthcare providers about all your breastfeeding questions.

If a man receives iodine-131, can it affect fertility or increase the chance of birth defects?

Receiving iodine-131 can cause short term changes in a man's fertility (ability to get a woman pregnant). No increase in birth defects has been found in children whose fathers who were treated with iodine-131. 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.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://mothertobaby.org).

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