Iodine-131

This sheet talks about medical 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 provider.

What is iodine-131?
Iodine-131 is a radioisotope of iodine that has been used in some medical diagnostic procedures and treatments. Iodine-131 releases radiation.

I received iodine-131. Can it make it harder for me to get pregnant?
Studies have not been done to see if iodine-131 could make it harder for a woman to get pregnant. Some studies suggest that women treated for thyroid carcinoma with iodine-131 had no problem getting pregnant again.

I took iodine-131, but 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.

Does taking iodine-131 increase the chance for miscarriage?
Miscarriage can occur in any pregnancy. Iodine-131 is generally avoided during pregnancy. One reported a higher chance for miscarriage in pregnancies that happened during the 12 months after exposure to iodine-131. Another study has not found a higher chance for miscarriage. Some authors have suggested postponing pregnancy for 5 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 taking iodine-131 increase the chance of having a baby with a birth defect?
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. It is not known whether iodine-131 would increase this chance for birth defects, however; most reports show no increase in the chance for birth defects.

Could iodine-131 cause other pregnancy complications?
No complications of pregnancy have been reported following medical use of iodine-131.

Will taking iodine-131 during pregnancy affect my baby’s behavior or cause learning problems?
It is not known if medical iodine-131 use in pregnancy would affect a baby’s behavior or cause learning problems.

Can I breastfeed my baby if I received iodine-131?
It has been recommended that breastfeeding be stopped if iodine-131 is given. The mammary gland (organ that makes milk) binds and concentrates the radioactive iodine, which also moves the iodine-131 into the milk. 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. Breastfeeding can be restarted when radioactivity counts return base level. Be sure to talk to your healthcare providers about all of your breastfeeding questions.*

What if the baby’s father takes iodine-131?

No increase of congenital malformations has been found in children whose fathers who were treated with iodine-131. In general, exposures that fathers 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/pdf/.*

* Section Updated May 2020

Selected References:

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