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Graves' Disease in Pregnancy

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Hypothyroidism during pregnancy

At first, your baby relies completely on tiny amounts of thyroid hormone that enter its circulation from your own blood. Hypothyroidism in a newborn baby or young child may lead to permanent mental retardation and growth impairment. It is therefore important that your thyroid hormone levels stay well within the normal range during your pregnancy. If you are already taking thyroid hormone, your TSH should be checked as soon as you become pregnant, with follow up tests completed every 6–12 weeks throughout your pregnancy.

Hyperthyroidism during pregnancy

Some women who develop Graves' disease will do so while they are pregnant. The chances of miscarriage and stillbirth rise if hyperthyroidism goes untreated, and the overall risks to you and your baby further increase if the disease persists late in pregnancy. Therefore, significant hyperthyroidism should be treated.

Since radioactive iodine can destroy the baby's thyroid, the treatment of choice for an overactive thyroid diagnosed during pregnancy is anti-thyroid medication. Of the two available drugs, propylthiouracil (PTU) is usually preferred early in pregnancy. The other available drug methimazole (Tapazole) has been associated with extremely rare cases of malformations in the fetus. Because the risk of malformations ends after the first trimester, methimazole can be used in the second and third trimester. The goal is first to control your hyperthyroidism and then to use the lowest possible amount of medication to keep your thyroid hormone levels in the high-normal range.

If you develop a mild allergy to one anti-thyroid medication, your doctor may switch you to the other. If you develop a more severe drug allergy or have another problem taking the pills, then you may end up having your hyperthyroidism treated with surgery to remove most of the thyroid. This is usually done in the middle part of pregnancy, but fortunately is rarely necessary.

Typically, hyperthyroidism in pregnancy lessens or resolves completely as the pregnancy progresses. As you near your due date, you may be able to reduce your dosage of anti-thyroid medication or even stop taking it altogether. If severe hyperthyroidism persists, however, it is important to maintain control of your thyroid levels to avoid developing "thyroid storm" (severe thyrotoxicosis) during labor and delivery. If this happens, you may need additional treatment with a beta blocker such as propranolol or atenolol and high doses of nonradioactive iodine to control heart rate and other symptoms.

Small doses of beta blockers may be used during pregnancy to control a rapid pulse and other symptoms of hyperthyroidism, especially before surgery.

Thyroid disease in the fetus

Anti-thyroid medications, too much iodine, and, very rarely, maternal thyroid antibodies can all cross the placenta and cause hypothyroidism in your baby. Iodine, which is present in some drugs, including some cough medicines, can cause a goiter in the fetus, making delivery difficult or blocking the baby's windpipe. For this reason, drugs containing iodine in high doses should not be used in pregnancy except in special situations.

Too little iodine can be a problem, too. Iodine is necessary for the fetus because it is a part of thyroid hormones. The increased popularity of low-sodium foods has resulted in a greater number of Americans not getting sufficient iodine. All pregnant women are therefore advised to take a daily prenatal vitamin containing about 150 micrograms of iodine.

Unfortunately, there is no simple blood test to assess your baby's thyroid function while you are pregnant. But even if your baby is hypothyroid at birth, immediate treatment with thyroid hormone should allow for normal growth and development.

Fetal hyperthyroidism occurs occasionally due to transfer of a mother's thyroid-stimulating antibodies across the placenta. Most often, the mother herself has hyperthyroidism that is being treated with anti-thyroid drugs, which also treat the baby. If you had hyperthyroidism in the past and were treated with radioactive iodine or surgery to remove your thyroid, you are probably no longer hyperthyroid. However, the antibodies may remain in your blood. Since you feel well, your physician may not suspect a problem in your baby. Clues to fetal hyperthyroidism are a fetal heart rate consistently above 160 beats per minute and high levels of thyroid-stimulating antibodies in your blood.

Untreated fetal hyperthyroidism may lead to low birth weight and head size, fetal distress in labor, neonatal heart failure, and respiratory distress. Therefore, if you have ever had Graves' disease, tell your physician. He or she should test your blood for thyroid-stimulating antibodies late in pregnancy. You may need to take anti-thyroid drugs during pregnancy to treat your baby. Close follow-up and continued treatment of your baby will be necessary after delivery. Fortunately, your antibodies disappear from your baby's circulation in the first weeks of life.

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