Understanding Hypothyroidism and Pregnancy

What is Hypothyroidism?

The thyroid is a gland in your neck that makes 2 hormones (T3 and T4) when signaled to do so by Thyroid Stimulating Hormone (TSH). These hormones influence many normal functions of your body.

- Hypothyroidism is the under (low) functioning of the thyroid gland so not enough T3 and T4 are made
- TSH is a brain hormone that rises when there is not enough thyroid hormone in the body. It pushes your thyroid to work harder.
- Measuring TSH is the best way to find a problem with thyroid hormone amounts
- Some women may have hypothyroidism all of the time; others may have it only when pregnant

Please review **any** history of thyroid problems or family history of thyroid problems with your caregiver before you are pregnant or as early as possible in pregnancy when you have a positive pregnancy test.

Symptoms of Hypothyroidism

- It is very common for women with hypothyroidism to not have any symptoms at all

- Symptoms can include poor appetite, fatigue, depression, cold sensitivity, constipation, weight gain, water retention, dry and itchy skin, hoarse voice, muscle cramps, paleness and sometimes the presence of a goiter (swelling of the thyroid gland that can cause visible swelling on the neck)

Hypothyroidism and Pregnancy

- Pregnancy requires the thyroid gland to work a little harder, putting added

demand on the thyroid gland
- For the first 10-12 weeks of pregnancy, the baby is completely dependent on the mother for the production of thyroid hormone. By the end of the first trimester, the baby's thyroid begins to produce thyroid hormone on its own.
- Untreated hypothyroidism during pregnancy can increase the risk of a preterm birth, a low birth weight baby, miscarriage, high blood pressure, bleeding after the delivery and breech presentation.
- Treatment of hypothyroidism in pregnancy may be important for both mother and baby

How is Hypothyroidism Diagnosed?

- Your healthcare provider will order a blood test called TSH during your prenatal visit if you are identified as at risk.
-Based on your blood test results, a diagnosis may be made and a plan for treatment will be considered for you.

Treatment Standards

- Research continues to clarify the risks and impacts of thyroid problems in pregnancy.
- If TSH > 2.5, you may be asked to do a further blood test called TPO Antibodies. If it is positive then you may benefit from treatment with medication.
- Treatment of hypothyroidism involves thyroid hormone replacement in the form of a small pill taken daily, called "L-thyroxine" (Eltroxin or Synthroid).
- Occasional testing of TSH levels will be needed throughout your pregnancy to assess that the treatment continues to be enough.

- **<u>Overt Hypothyroidism:</u>** Women who are already on thyroid medications before pregnancy need to call their caregiver as soon as they have a positive pregnancy test for adjustment of their L-thyroxine medication (synthroid®, eltroxin®).
- In general it is advised to increase your medication as follows:
    - IF your present L-thyroxine dose is less than 100mcg then take 2 tablets on 3 days of the week (Mon, Wed, Sat) and call your caregiver for an appointment to do TSH level & review.
    - IF your present L-thyroxine dose is 100mcg or more then take 2 tablets on 2 days of the week (Mon, Thurs) and call your caregiver for an appointment to do TSH level & review.

- Your caregiver will help you change to equal daily doses between 5-8 weeks of pregnancy based on guidelines that suggest:
  - Previously on <100mcg increase by 50mcg/d
  - Previously on >100mcg increase by 25mcg/d
  - If TSH is being treated with Synthroid >50mcg, increase by a further 25mcg/d, checking TSH every 4 weeks in early pregnancy. We will then check your TSH levels again around 28 weeks and 34 weeks. Stay on your thyroid medication daily. The goal is to keep your TSH less than 2.5 mU/L throughout pregnancy.

Slightly high doses of these medications are NOT harmful in pregnancy.

- **Subclinical Hypothyroidism:** Some women have high TSH (over 2.5) ONLY in pregnancy called Subclinical Hypothyroidism. Although the effects on pregnancy are lower risk there is an increased chance of pregnancy loss, premature birth, breech presentation and possibly high blood pressure. There are very small risks to treatment (possible allergy is extremely rare and mild overtreatment has shown no pregnancy problems). All women with a TSH > 2.5 may benefit from further testing and should speak to their primary care provider.

The present recommendations are to discuss and consider treatment with L-thyroxine

IF:

- TSH is > 10- definitely treat- may be Overt hypothyroid
- TSH is 4-10- most would recommend treatment
- TSH is 2.5-4.0- more testing may be ordered to see if you would benefit from treatment. Consider other pregnancy risk factors for high blood pressure, pregnancy loss, preterm labour or thyroid risk factors like previous inflammation of the thyroid, surgery or radiation treatment and offer treatment.
- Remember these medications are very safe.
- Starting medication after 12 weeks gestation is probably of less benefit.
- If you start medication we monitor your TSH as for women with Overt Hypothyroidism. If you choose not to start medication then your TSH should be checked every 4 weeks up to 20 weeks and then once more after 26 weeks.

- Treatment will be recommended if the TSH is increasing however it may be too late to have as much positive impact.

After Delivery of your Baby

- L-thyroxine medications are safe in breastfeeding. Establishing good milk production requires good levels of L-thyroxine.
- Stay on your current dose of L-thyroxine for 2 weeks after the baby is born if you had hypothyroidism before pregnancy.
- When your baby is 2 weeks old:
    - If you had hypothyroidism before pregnancy, return to your pre-pregnancy dose. Have your TSH rechecked at 6 weeks.
    - Stop your medication if it was new for you in pregnancy UNLESS you were instructed to continue a lower dose. (Those with the early TSH >4-10 probably need ongoing medication.)
    - 5% of women who had new low thyroid functioning in pregnancy will become overt hypothyroid each year. Have your TSH checked each year and before another pregnancy.
- Have your TSH level re-tested at your 6 week check up

Studies continue to look at the thyroid and pregnancy problems. This information will be reviewed regularly.

References:

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http://www.thyroid.ca
http://www.thyroid.org/

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