

Patient information

Pregnancy and Hypothyroidism

Diabetes and Endocrinology Department

What is hypothyroidism?

Hypothyroidism is the term used to describe an under-active thyroid gland. The thyroid gland sits at the front of your neck, just above your collarbone. In normal health it produces enough of the hormone thyroxine (T4) to keep you well.

Thyroxine is the hormone involved in the body's metabolism, ensuring we use our energy at the correct rate and that all our organs and cells can work normally. It is made by the thyroid gland in response to another hormone, thyroid stimulating hormone (TSH) being produced by the pituitary gland. By stopping or releasing TSH the pituitary gland is able to maintain normal levels of thyroxine.

Most of the thyroxine (T4) in the blood is attached to a protein called thyroxine binding globulin (TBG) which prevents thyroxine from entering the cells. When it is not attached to a protein it is known as Free T4 and is available for uptake by the body's cells. Free T4 and TSH levels are important indicators in determining how active the thyroid gland is.

What happens to the thyroid gland during pregnancy?

Pregnancy results in a number of important physiological and hormonal changes that alters the size and function of the thyroid gland. In the first 12 weeks of pregnancy, the baby is dependent upon the mothers' thyroid hormone. To meet yours and your baby's demands for thyroxine, the thyroid gland normally increases by 10-20% in size and production of thyroxine increases by 25-50%. Your body requirement of the mineral iodine, which is used to make thyroxine, is also increased.

How does hypothyroidism happen?

Some women may already have been diagnosed with hypothyroidism before pregnancy. However, other women may develop hypothyroidism during or after pregnancy because they produce antibodies to their own thyroid gland. This is known as an auto-immune response and often patients may have other problems such as pernicious anaemia or diabetes. The most common type of auto-immune reaction which causes hypothyroidism is known as Hashimoto's disease.

What will I feel like with an under-active thyroid?

There are many symptoms of an under-active thyroid gland and not everyone will have all the symptoms. The thyroid hormones normally stimulate the body's metabolism and most of the symptoms of hypothyroidism reflect slowing of the metabolism.

Generally the symptoms of hypothyroidism include a variety of the following and may not at first be recognised as caused by an under-active thyroid in a woman who is pregnant. Symptoms can include extreme fatigue, muscle cramping, constipation, intolerance to cold, and problems with concentration or memory.

How is it diagnosed?

Doctors use the same methods for diagnosing hypothyroidism in pregnant women as they do in other individuals: medical history, review of symptoms and blood tests to measure your TSH and free T4 levels. Doctors can also measure antibodies to confirm auto-immune disease.

How is hypothyroidism treated?

When the diagnosis is confirmed, treatment is fairly easy. It involves giving you thyroxine tablets each day.

Thyroxine requirements frequently increase during pregnancy and therefore, you will need regular blood tests to monitor your TSH and free T4 levels to ensure you are on the correct dose of thyroxine.

Absorption of thyroxine can be affected by other medications you may be taking during your pregnancy; including antacids, iron or calcium supplements and you should therefore leave 4-5 hours between taking thyroxine and any of the aforementioned medication. If you are taking any other medication during pregnancy, please discuss this with your consultant, GP or midwife.

What side effects are there?

The aim of the therapy is to replace the thyroxine you would produce normally so side effects should not occur. If your dose is too high you may experience some irregular heartbeats with palpitations. Feelings of being over anxious and 'hyped' up can also occur sometimes. Sweating and an intolerance of high temperatures are also common.

What else do I need to know?

- You should carry identification with you to alert people to the fact that you take thyroxine, either a card or bracelet/pendant. This can be important if you are ever in an accident.
- When you are taking thyroxine you are exempt from prescription charges for this medicine. You can get a form from your family doctor (GP) to arrange for an exemption certificate.
- It might also be useful to carry a list of your medicines and their doses with you and to leave a copy with your partner and/or parents.

Please be sure to read carefully any information provided by your pharmacist.

What will happen to me if I don't take the tablets?

If not treated, hypothyroidism can increase your risk of developing heart disease, pre-eclampsia, placental abnormalities, miscarriage and postpartum bleeding. In severe circumstances, an untreated under active thyroid can cause a potentially life threatening condition called myxoedema coma.

What will happen to my unborn baby if I don't take the tablets?

Thyroxine is critical for your baby's brain development, especially in the first 12 weeks of pregnancy when the baby is unable to make his or her own thyroxine. If left untreated hypothyroidism in the mother can lead to impaired brain development in the baby. They may also be born with low birth weight. They can be stillborn if severe hypothyroidism is not adequately treated during pregnancy.

However, with adequate treatment during pregnancy the outlook is excellent, the symptoms usually go and you and your baby are very unlikely to develop any complications.

How long will I need to take the treatment for?

If you were diagnosed with hypothyroidism prior to or after becoming pregnant, you will probably need to continue with thyroxine treatment after your baby is born. However, the dose of thyroxine will normally be reduced due to a reduction in your body's requirements.

Once your level is stabilised you will be discharged from clinic to the care of your GP.

It is recommended that you attend your GP each year for a blood test to assess that your dose of thyroxine tablets remains adequate for you.

Can I breast-feed my baby if I am taking thyroxine?

Yes – although there may be a small trace of the medication in your breast milk, this is not enough to harm the baby in any way and will not affect tests for neonatal hypothyroidism (baby heel prick).

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

Please feel free to contact the Endocrine Specialist Nurses with any questions you may have. There is an answer machine where you can leave your name and contact details. We will return all calls.

The Endocrinology Specialist Nurses

Tel: 0151 706 2417

Text phone number: 18001 0151 706 2417

Related Patient information leaflet:

- **Thyroxine Replacement Therapy (PIF 504)**

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