

Hypothyroidism - by Celia Connolly (abridged)

Hypothyroidism is commonly described as being due to underactive thyroid gland but there is more to it than just thyroid activity. Sometimes the problem is primarily underproduction of the thyroid's main hormone, thyroxine (T4). But T4 has also to be converted into its active form triiodothyronine (T3) by the liver. It has then to be efficiently utilized by the body.

It may also be caused by a lack of thyroid hormone secretion secondary to the failure of adequate thyrotropin (ie, thyroid-stimulating hormone [TSH]), a secretion from the pituitary gland or thyrotropin-releasing hormone (TRH) from the hypothalamus (secondary hypothyroidism) [Orlander P R 2005]. Disruption of any of these processes can contribute to hypothyroidism symptoms [Holmes & Pick 2006].

Parathormone and Calcitonin from the thyroid gland act in a complementary manner to maintain blood calcium levels within the normal range needed for muscle contraction, blood clotting and nerve impulsive transmission (Ross & Wilson).

The thyroid gland uses iodine (mostly available in the diet from foods such as seafood, bread and salt) to produce thyroid hormones. The two most important thyroid hormones are thyroxine (T4) and triiodothyronine (T3), which account for 99.9% and 0.1% of thyroid hormones present in the blood respectively. However, the hormone with the most biological activity is T3. Once released from the thyroid gland into the blood, a large amount of T4 is converted into T3 - the active hormone that affects cell metabolism.

Importance of hypothyroidism

According to Orlander, 2005:

- In developed countries, death caused by hypothyroidism is uncommon;
- Hypothyroidism can be congenital. It affects 1 per 4000 newborns worldwide;
- Hypothyroidism is a very common condition, with 3 to 5% of population having some form of hypothyroidism;
- The prevalence of hypothyroidism was higher in whites (5.1%) than in people of Hispanic descent (4.1%) or African Americans (1.7%);
- Generally, thyroid disease is much more common in females than in males, with reports of prevalence 2 - 8 times higher in females, especially those females between the ages of 35 and 60;
- Hypothyroidism is most prevalent in elderly populations, with as much as 20% of older age groups having some form of hypothyroidism.

According to Hypothyroidism, Mayo Clinic staff 2006, common symptoms, categorized as moderate and severe include:

Moderate hypothyroidism

- Fatigue
- Depression
- Cold intolerance
- Excessive sleepiness
- Decreased concentration
- Vague aches and pains
- Hormonal disorders, incl. Abnormal menstrual cycle, decreased sex drive
- Low body temperature
- Swelling of the legs
- Weight gain
- Muscle cramps
- Dry skin & coarse hair
- Constipation

Severe hypothyroidism: With severe hypothyroidism the disease becomes more severe there may be:

- Slowing of the heart rate
- A drop in body temperature
- Heart failure
- A life-threatening coma (myxedema coma)
- Puffiness around the eyes
- Swelling of the neck area

Treating hypothyroidism with conventional medicine

Properly diagnosed, hypothyroidism can be easily and completely treated with thyroid hormone replacement, using T3 or T4. With the exception of certain conditions, the treatment of hypothyroidism requires life-long therapy. Presently, a pure, synthetic T4 is widely available. This is stable form of thyroid hormone and requires once a day dosing, whereas T3 is much shorter-acting and needs to be taken several times a day.

Therapy for hypothyroidism is monitored at approximately 6 week intervals until stable. The most common conventional treatment for hypothyroidism is L-thyroxine [Merck Manual, 1987].

Treating with reflexology or Zone therapy.

There are numerous theories of how reflexology works [Shirley C 2006], among them:

Lymph: Since the lymphatic system removes toxic product and includes the immune system, it is assumed that reflexology enhances its function and restores proper chemical balance in the body.

Electrical Potential: It is believed that a difference in electrical potential in various parts of the body constitutes a corresponding malfunction in another part of the body. Reflexology remedies this difference.

Ki Energy: It is believed that foot reflexology works in the same way as acupuncture and shiatsu: by bringing balance to the flow of energy along the body's meridians.

Nerve Endings/Crystals: It is believed that nerve endings are unable to transmit their impulses because of crystalline deposits that build up and block their pathway. Reflexology is believed to clear these crystalline deposits.

Specific conditions and reflexology

It is important to note that the list of conditions successfully addressed by reflexology includes most of the symptoms exhibited in hypothyroidism and unmanaged stress.

1. **Effect of self-foot reflexology massage on depression, stress responses and immune functions of middle aged women [Taehan Kanho Hahhoe Chi, 2006].**

PURPOSE: This study was aimed to identify the effects of self-foot reflexology massage on depression, stress responses and functions of the immune system of middle-aged women.

METHOD: This study was a one group pretest-posttest experimental design and the data was collected from August 1st, 2004 to May 31st, 2005. The subjects consisted of 46 middle-aged women (40 - 64 years) who were recruited from the Community Health Center in Busan city. Subjects were not treated for 4 weeks. Subsequently they were trained in self foot reflexology for 2 weeks and then they did their own dailt treatment for 6 weeks (2 days at the research center, 5 days at home). The outcome variables were measured 4 times, at baseline, pre training, after training and after the intervention. The collected data was analysed using repeated measure ANOVA by the SPSS/WIN programme.

RESULT: There was a statistically significant difference in depression, perceived stress, systolic blood pressure, natural-killer cells. However, there was not a statistically significant difference in diastolic blood pressure, pulse or serum cortisol.

CONCLUSION: These results suggest that a self-foot reflexology treatment could be utilized as an effective nursing intervention to reduce depression and stress responses and to strengthen immune systems in middle-aged women.

2. In relation to constipation. Bishop E., McKinnon E., Weir E., Brown D. W. [2003] investigated the efficacy of treating patients with chronic constipation with reflexology. The outcome was that reflexology has been an effective method of treating constipation over six-week period. Constipation is another symptom of underactive thyroid.
3. Some of the more commonly recognized benefits, according to Severn M. [2006] are that reflexology can improve sleep pattern (improved sleep or reduced lethargy) and general relaxation (calmer reactions when stressed), aid digestion (including eating habits and irritable bowel syndrome), and influence excretion. Other effects may be particular to the individual. Sluggish endocrine glands can be stimulated using reflexology, but great care must be taken if the patient is also receiving drug therapy.

Other recommendations.

To determine low body temperature and to test your thyroid function at home [Health and Wellness Resources - Do you have normal thyroid function? 2006]. When you awaken in the morning, before moving around (even before going to the bathroom), place the thermometer snugly in your armpit and keep it in place for 15 minutes. Keep as still as possible. Then, remove the thermometer, take the reading, and write down the results. This is repeated for three successive days. To determine an average reading, just add all three readings together and dividing by three. If your average temperature is below 97.5 degrees F., in all probability you are suffering from subclinical hypothyroidism and should discuss your findings with your doctor. If you are of childbearing age, time your three day temperature test to avoid the first week of your menstrual cycle and the few days when you are ovulating, which occur in the middle of the cycle.

Nutrition

In relation to the role of nutrition in hypothyroidism, kelp, vitamins A, E, B, zinc and serotonin are most important.

According to Gursche S. [1987] in relation to nutrition, seaweed such as kelp, carrageen, nori and dulse are powerful healing foods for hypothyroidism that is due to iodine deficiency. They are the best sources of iodine. Seafood such as clams and lobster from uncontaminated waters provide iodine, vitamin A and zinc which are needed for thyroid hormone production. Eggs, full-fat milk, cheese and plain natural yogurt all contain vitamin E. Muesli made from rolled oats contains both vitamins B-complex, E and zinc. Oats are also high in calcium, potassium and magnesium. With underactivity of the thyroid there are metabolic difficulties with calcium absorption. Vitamins A, C, D and E are also essential in thyroid hormone production and are found in avocado pears.

Serotonin is a very important brain biochemical and must be present at optimal levels to prevent depression. One way of increasing serotonin in the brain is to

take its amino acid precursor, tryptophan. Tryptophan is found in fish, meat, dairy products, eggs, nuts and wheat germ.

Food to be avoided.

It is recommended to avoid foods which inhibit iodine metabolism, such as cabbage, turnips, mustard, soybean, peanuts and millet. [According to Gursche, 1987]

Exercise and other treatments

Again, according to Gursche S. [1987] aerobic exercise is excellent for circulation. One-minute water stepping, i.e. one minute on hot water and one minute in cold water, is valuable. Barefoot walking on the beach is beneficial. As one of the symptoms of underactive thyroid is dry skin and circulation problems, drybrushing of the body with a loofah before the morning shower is also beneficial. Seaweed bath is also recommended as a frequent practice.

Relaxation

The Relaxation Centre [2006] states that deep simple relaxing is beneficial in that it provides:

- relief from stress and anxiety,
- peace of mind, improved sleep,
- better coping skills,
- greater vitality,
- stimulation of the body's healing energy to return to equilibrium,
- improved circulation,
- increased joint mobility in the feet and ankles,
- detoxification,
- support when under stress and going through changes.

Case studies

Case 1

An adult female had been diagnosed as having a severe underactive thyroid by general medical practitioner with confirmation by laboratory blood tests T3 & T4. The client was placed on L-thyroxine at 200 mcg daily. Regular monitoring by blood tests for T3 & T4 levels was being carried out.

Main symptoms

The main symptoms were of severe fatigue and severe hormonal disorders, including abnormal menstrual cycle, which had resulted hysterectomy. Unable to stabilize by conventional treatment, the patient was referred to an endocrinologist for a period of 2 to 3 years. The endocrinologist succeeded in health stabilization by adjusting dosage of L-thyroxine.

*The endocrinologist expressed the opinion that had this stabilization been achieved earlier that hysterectomy would not have been required.

Increasingly underactive thyroid is anecdotally being connected with menstrual problems.

*This is evident from visiting the [www](#) for reflexology & menstrual problems in 2006, which reveals 86.800 references.

Interaction

*According to Health and Wellness Resources: Do you have normal thyroid function? [2006], citing Eunice Ingram, known as the mother of reflexology, trouble in the ovaries of ten affects thyroid functions and vice versa so, if the thyroid is out of balance, working both the thyroid and ovary reflexes on the feet would be good. The main thyroid reflex is between the bottom of the big toe and the foot, where the toe connects to the foot. The ovary reflexes are located on the outside of each foot, straight down from the ankle. Reflexology will be beneficial whether the thyroid is overactive or underactive. To work the reflexes, just use a firm but not overly hard pressure on the reflex area. Using the thumb, gently massage in little circles for about 3-5 minutes.

Natural remedies

The client, following consultation with Dr Jan deVries, Clinic Dublin, changed to natural remedies and is now taking kelp and calcium as recommended. Calcium is administered in the form of urticalcin for under tongue absorption, as otherwise with thyroid underactivity calcium absorption is diminished. The client has researched and is also aware of the use and need for vitamins, dietary selection and controlling stress by relaxation techniques.

Reflexology treatment

Full treatments were given at each session.

Reflexology treatment identified painful reflexes sited at the pituitary, pineal, hypothalamus, thyroid, thyroid helper, the ovaries and lymphatic system points. These were the most painful areas. Special attention was given to those areas, also the adrenal glands and kidneys.

Stability and client responses

Had 10 treatments over a period, most of the points became significantly less painful. After 3rd and 4th treatment client felt 'freezing cold' during treatments and very emotional for a few days after treatment.

However better sleeping, increased relaxation and increased energy and concentration levels were experienced. Personal confidence was also noted. The client is having monthly sessions to help sustain and stabilize the positive benefits experienced so far.

Case 2

Adult female, early 30s, had been diagnosed as having under-active thyroid by general medical practitioner and placed on neo-mercazole for a few months.

Hypothyroidism had been also diagnosed at her mother. The patient continued to feel unwell, with no coping skills and severe anxiety. She was diagnosed with under active thyroid and is currently on Eltroxin 100 micro grams daily.

Most severe symptoms were: fatigue, very emotional and difficulty managing routine tasks, constantly worried about small problems, emotional, disruptive sleep, feeling cold, especially feet, fine hair, very dry skin, menstruation light, digestive problems, bloated feeling, unpleasant taste in the mouth. She felt she always had 'bad breath'.

Reflexology treatment

Feet cold and pale. Full treatments given with attention to endocrine system.

Painful reflexes: pituitary, pineal, hypothalamus, thyroid glands, thyroid helper.

Less painful stomach, pancreas, ovaries, fallopian tubes.

Client experienced cold-like symptoms, very emotional and felt very cold immediately after treatment (from 3rd and 4th treatments).

After regular treatments reflexes less painful. Client was more relaxed, stress management improved. Energy levels increased, especially during the week after treatment. More conscious of her needs. Nutrition and exercise. Wishes to continue treatments in order to sustain stability.

Conclusion and suggestions

"A relaxed body can heal itself, and reflexology is a guaranteed method of relaxing the body and balancing the biological systems" according to Inge Dougans.

Relaxation (from reflexology)

Stress management as evident on previous pages.

What you put into your body by thought forms.

Nutrition and water intake.

Exercise and fresh air.

Time to reflect, have fun. Especially laughter.

Believe that we deserve love, loving ourselves.

Living a balanced life style.

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