

Information from the British Thyroid Foundation (BTF) and British Thyroid Association (BTA) on thyroid hormone replacement (<http://www.btf-thyroid.org/information/16-drug-and-medicine-availability-updates>)



Liothyronine (L-T3) and Levothyroxine (L-T4)

Answering patients' questions

The management of primary hypothyroidism with Levothyroxine is usually simple, effective and safe, and most patients report improved well-being once they have started treatment. However medical professionals recognise that a proportion of individuals continue to suffer with symptoms despite apparently having thyroid function tests falling within the normal range.

For patients who have clearly not derived benefit from L-T4, endocrinologists (thyroid specialists) sometimes decide to begin a trial of L-T4/L-T3 combination therapy. Such patients should be supervised by accredited endocrinologists after a fully informed and understood discussion of the risks and potential adverse consequences.

We are aware that a number of patients have been advised by their GPs that L-T3 is no longer available for the treatment of hypothyroidism and that they use L-T4 as an alternative treatment. We understand that this is as a direct result of the sharp increase in price of L-T3, which the NHS does not believe is sustainable. The sudden non-availability of L-T3 has caused considerable concern and we therefore feel that some clear advice would be helpful. The BTA has produced a similar [FAQ sheet for GPs](#) which you can print off and take with you to an appointment if you believe it would be useful.

What is the BTA and BTF's position as regards the withdrawal of L-T3 therapy?

The BTA and BTF believe that clinical need should come before financial considerations and they therefore do not support the practice of sudden withdrawal of L-T3 therapy. Patients established on L-T3 who continue to derive benefit from its use should continue to use it. However, patients with uncertain benefits should be considered for a switch to L-T4 and advice should be sought on how this can be safely done.

I have been on Liothyronine (L-T3) a long time. Is there any problem with switching me to Levothyroxine (L-T4)?

Your doctor should have made you aware of the risk to your thyroid stability. A change in treatment can unfortunately result in a significant instability in thyroid status, which can take some time to address.

Is there a resource to which I can refer with regard to the use of Liothyronine (L-T3)?

Yes there is a [2015 BTA Statement on the Management of Primary Hypothyroidism](#). This summarises the evidence for the use of Liothyronine and states that we have yet to see conclusive evidence regarding its efficacy for this condition. Therefore combination treatments of Liothyronine and Levothyroxine should be started and supervised by an accredited endocrinologist rather than a GP.

Is there any problem in switching me to just Levothyroxine from combined Liothyronine (L-T3)/Levothyroxine (L-T4) or from Liothyronine?

This has to be made gradually with the aim of avoiding under- or over- replacement. The final L-T4 requirement is likely to be around 1.6mcg/kg. If there is any information about a previous L-T4 dosage that achieved a normal TSH this will be a useful guide. Gradual reduction of L-T3 starting at the same time as introducing L-T4 may be a preferable alternative. Careful monitoring of the patient during the transition period is essential.

Can I be switched from Liothyronine (L-T3) to Levothyroxine (L-T4) if I have been diagnosed with thyroid cancer?

Switching from L-T4 to L-T3 is part of a standard protocol used in patients with a history of thyroid cancer in preparation for radioiodine ablation, radioiodine therapy, iodine scanning or stimulated thyroglobulin test, so access to L-T3 is imperative.

Are there any particular patients who merit extra caution?

If you are over the age of 60, or have known heart disease, additional care is required to avoid over-replacement and L-T4/L-T3 combination therapy or L-T3 only therapy. L-T4/L-T3 combination therapy or L-T3 only therapy are not recommended if you are pregnant.

What is your advice concerning the use of dessicated animal thyroid extracts?

This issue is addressed in the 2015 BTA Statement on the Management of Primary Hypothyroidism. These thyroid hormone preparations are not currently recommended in the management of hypothyroidism.

For further professional information: www.british-thyroid-association.org

Patient information can be found on www.btf-thyroid.co.uk

December 2016