



## Change to FT4 Testing

### Diagnosis of Thyroid dysfunction

The relationship between TSH and FT4 makes TSH a very sensitive marker of thyroid function; if FT4 is decreased by 50%, TSH will increase about 100 times. In most patients TSH is the preferred initial test when checking for thyroid disease. If TSH falls outside the reference interval, additional testing will be automatically triggered:

- TSH > 5 FT4 is added
- TSH < 0.3 FT4 and FT3 is added.

### When to request both FT4 and TSH?

- During pregnancy. Refer to Pathlab website for pregnancy reference intervals
- Suspected pituitary disease.
- Suspected non-compliance with supplementation.

### Monitoring of thyroid hormone supplementation in men and non-pregnant woman

- Wait 6 weeks after a dose adjustment to allow TSH to stabilise.
- FT3 is not informative when taking T4 and should not be routinely requested.
- When on a stable dose, check TSH annually.

For other thyroid conditions or settings consult the BPAC guidelines or an endocrinologist.

(BPAC : <http://www.bpac.org.nz/magazine/2010/december/thyroid.asp>)

### Change to Pathlab Requesting

Pathlab utilise bpac guidelines to reflex FT4 and/or FT3 based on TSH results. This process is fully automatic, and the reflex tests are reported with the TSH result. We are seeing many requests for FT4 where the TSH is within reference limits. Some of these requests may be valid and we do not want to restrict useful tests. However, FT4 is often requested with TSH for no good reason, and this is wasteful.

We will shortly be removing FT4 from the front page of the electronic order form. It will remain searchable and requestable to requestors. Our intention is to encourage best practice as detailed in the bpac guidelines contained in the link attached. We will also take the opportunity to make minor adjustments to other tests on the e-order form, namely moving IgE, Iron studies and Cortisol to other pages and making NT-ProBNP a searchable test only. Be assured all of these tests are still available to request

### Change of reporting of Iron saturation

Pathlab and Waikato hospital will be changing the report name of Iron Saturation to the more accurate Transferrin Saturation on our reports in the very near future. The results will not change, only the name of the test. Results will still be expressed as %.

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