



Free T4

Synonyms

Clinical Indication

Part of Profile / See Also

Request Form

Availability / Frequency of Analysis

Turnaround Time

Patient Preparation

Sample Requirements

Specimen Type

Volume

Acceptable Containers

Thyroxine

Free T4 levels are required for definitive assessment of thyroid status when TSH is abnormal and if pituitary dysfunction is suspected.

During long-term replacement or suppressive therapy with thyroxine, TSH is the best index of appropriate dose (unless treatment of hypothyroidism due to pituitary or hypothalamic disease). Free T4 levels are also required in early treatment of hyperthyroid disease, since TSH levels may remain suppressed for several months after normalisation of free T4.

Thyroid Function Tests

Combined Pathology manual Blood form or ICE request

On request. Free T4 is automatically measured if TSH level is abnormal or in suspected pituitary dysfunction.

Same Day

None required.

Serum and plasma

0.5 ml



Yellow top (SST) tube



Green top (lithium-heparin) tube



Paediatric orange top (lithium-heparin)



Paediatric green top (lithium-heparin)

Plain serum samples may also be used.

Reference Range & Units

Age	Free T4 (pmol/L)
0 to 20 days	N/A
>20 days	7.9 - 16

Adult Reference range is based on local population data.

In pregnancy the lower limit of normal for FT4 is:	
1 st Trimester	6.7 pmol/L
2 nd Trimester	5.8 pmol/L
3 rd Trimester	6.1 pmol/L

Reference: Beckman kit insert

Interferences

Specimens that contain high levels of biotin may cause false high results for this Free T4 assay

Interpretation & Clinical
Decision Value (if applicable)

Interpretive comment will be provided based on clinical information and the results.

References

Beckman kit insert.

Test code

FT4 included in TF1 and TF3.

As of 09/08/22, FT4 will no longer be provided front line as part of the TF2 profile. Exceptions are endocrinology request and patients <18 years of age.

FT4 will be reflexed if the TSH is above or below the reference range.

Lab Handling

Analysed from primary tube and stored at 4°C

Serum and plasma samples stable at 4-8°C for 8 days.