

Nutristasis

The Nutristasis unit provides analysis of endogenous vitamins in body fluids.

Changes to test profiles and names

Test	Change
Combined panels for serum B12, Ferritin, Folate	Combined panels for serum B12, Ferritin, Folate will no longer be available – these tests must be ordered separately
Vitamin B12 (KCH) and Vitamin B12 (RBHH)	Vitamin B12 (KCH) and Vitamin B12 (RBHH) will be renamed as Vitamin B12 Total
Serum Folate (CHEM)	Serum Folate (CHEM) will be renamed as Serum Folate
COVID Ferritin	COVID Ferritin (available at present at GSTT only) will be replaced by Ferritin
25-hydroxyvitamin D	25-hydroxyvitamin D will be renamed as 25-OH Vitamin D

Reference range changes

Test	Change
Serum B12	<p>Serum B12 – age related reference ranges apply. Ethnicity and pregnancy (trimester specific) ranges are incorporated into comments where applicable</p> <p>0 – 1 yr old: 215 – 1389 ng/L (all ethnicities)</p> <p>2 - 5 yr old: 374 – 1494 ng/L (all ethnicities)</p> <p>6 – 9 yr old: 332 -1081 ng/L (all ethnicities)</p> <p>10 – 13 yr old: 253 – 871 ng/L (all ethnicities)</p> <p>>14 yr: 225 – 1091 ng/L (Black and Black British ethnic group)</p> <p>> 14 yr: 182 – 692 ng/L (White and Asian ethnic group)</p> <p>For pregnancy, trimester specific serum B12 reference ranges apply:</p> <ul style="list-style-type: none"> • First trimester 168-574 ng/L • Second trimester 154-516 ng/L • Third trimester 112-465 ng/L
Serum ferritin	<p>Serum ferritin – sex and age related reference ranges apply</p> <p><u>Females cut-offs</u></p> <p>0-5 yrs – 12-150 ug/L</p> <p>≥6 yrs- 15-150 ug/L</p> <p><u>Males cut-offs</u></p> <p>0-5 yrs – 12-200 ug/L</p>

	≥6 yrs- 15-200 ug/L
Serum folate	Reference range 3.1 -20.5 µg/L

Changes to automated comments and reflex rules

Test	Comment
Serum B12	<p>Samples with serum B12 <150 ng/L will be referred for intrinsic factor (IF) and gastric parietal cell (GPC) antibodies assay. The following comment will apply</p> <p><i>Vitamin B12 deficiency. Determine cause and give parenteral vitamin B12 replacement. Sample sent for IF and GPC antibodies assay.</i></p> <p>Indeterminate B12 status (age dependent) will trigger the following comment</p> <p><i>Indeterminate B12 status. For vitamin B12 values between <this will be adjusted for age> ng/l in this age group we recommend confirmatory analysis with serum methylmalonic acid (MMA), a functional marker of vitamin B12 deficiency, providing that renal function is normal. If you would like to proceed using the same specimen please contact us asap - 0204 513 7300. If MMA is raised, B12 deficiency can be confirmed. Determine cause and give oral or parenteral vitamin B12 replacement.</i></p> <p>Replete comment</p> <p><i>Vitamin B12 replete.</i></p> <p>Elevated B12 comment</p> <p><i>Elevated B12 concentration.</i></p> <p>Comment for all females between 15-50 yrs. of age</p> <p><i>Please note, in pregnancy, trimester specific serum B12 reference ranges apply: first trimester 168-574 ng/L, second trimester 154-516 ng/L, third trimester 112-465 ng/L</i></p>
Vitamin D (25-OH Vitamin D)	<p>Samples with results >150 nmol/L will be sent for confirmatory analysis using LC-MS/MS technology (results for these samples will be available within 10 days). The following comment will apply.</p> <p><i>Result confirmed by LC-MS/MS.</i></p>
Ferritin	<p>Comment for results within the reference range</p> <p><i>Serum ferritin within the reference interval cannot exclude iron deficiency in the context of raised inflammatory markers or a history of acute or chronic disease; if applicable further investigation may be warranted. In individuals with infection or inflammation, a ferritin concentration below 70 µg/L may indicate iron deficiency.</i></p> <p>Comments for results above the reference range but ≤1000 ug/L</p> <p><i>Elevated ferritin concentration. Consider iron overload and other causes of elevated ferritin e.g. inflammation or infection. If asymptomatic, consider repeat serum ferritin and transferrin saturation in 3-6 months.</i></p> <p>Comments for results above the reference range but ≤10000 ug/L</p> <p><i>Grossly elevated ferritin concentration indicative of iron overload or other disease. Further clinical and laboratory evaluation is indicated to establish the</i></p>

	<p><i>diagnosis and underlying cause of the ferritin concentration.</i></p> <p>Comments for results above the reference range but >10000 ug/L <i>Grossly elevated ferritin concentration, can be associated with renal or liver disease, infection or malignancies. Consider also rare conditions such as Still disease or haemophagocytic lymphohistiocytosis.</i></p> <p>An additional comment for females 15-50 yrs old and ferritin result between 0-150 ug/L (Female) <i>Ferritin concentration below 30 ug/L in pregnancy should prompt treatment in anaemic (Hb <110g/L in first trimester, <105g/L in second and third trimesters) pregnant women, non-anaemic pregnant women identified to be at increased risk of iron deficiency and in women with known haemoglobinopathy.</i></p>
Folate	<p>Comment for low results Low serum folate concentration. This requires a cause investigation and treatment with folate supplements.</p> <p>Comment to results with serum folate between 3.1 - 5.9 ug/L <i>Folate close to the lower limit of the reference range (3.1 to 5.9 µg/L) may require folate supplementation. Suggests a cause investigation and additional analyses e.g. serum/plasma homocysteine if renal function is normal or red cell folate.</i></p> <p>Comment to results with serum folate between 6.0 – 20.0 ug/L <i>Folate replete.</i></p> <p>Comment to results with serum folate >20 ug/L <i>High folate status.</i></p>

Changes to critical phoning limits

Test	Change
Vitamin D	Vitamin D (25-OH Vitamin D) results >500 nmol/L will be communicated

Questions about reference ranges, critical telephone limits or test profiles

If you have any questions or concerns about any of these changes, please contact the corresponding scientific lead:

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