

# Fibroblast Growth Factor 23 (FGF-23)

## New assay now available

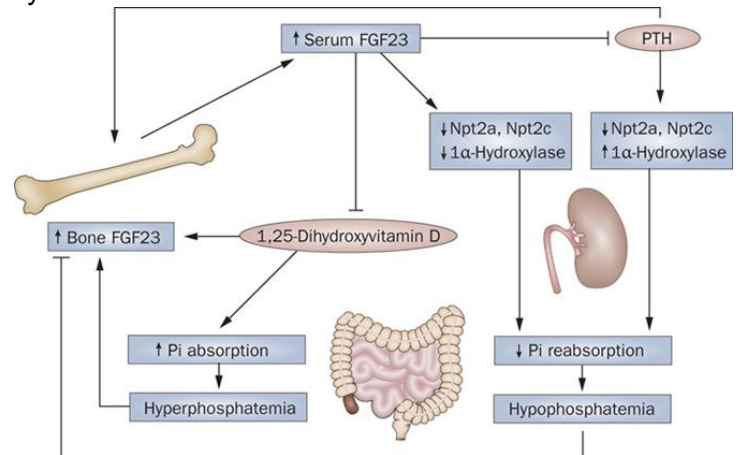
NSW Health Pathology are now offering fibroblast growth factor 23 (FGF-23) measurement through the Royal North Shore Hospital Laboratory.

FGF-23 is a key regulator of phosphate.

In response to increased phosphate, FGF-23 is produced in bone and secreted into the circulation.

FGF-23 acts in the kidney to decrease expression of Sodium-Phosphate transporters (Npt2a and Npt2c) resulting in phosphaturia.

FGF-23 also decreases 1,25 di-hydroxy-vitamin D and inhibits parathyroid hormone (PTH) secretion.



Farrow EG, White KE. Recent advances in renal phosphate handling. Nat Rev Nephrol. 2010;6(4):207-17.

The FGF-23 assay may be used to investigate persistent unexplained abnormal phosphate metabolism.

	Hyperphosphataemia	Hypophosphataemia
FGF-23 Excess	<p><b>FGF increase secondary</b></p> <p>Chronic kidney disease High phosphorus diet</p> <p>Klotho deficiency (effective FGF-23 resistance)</p>	<p><b>FGF increase primary</b></p> <p>Tumour induced osteomalacia AD hypophosphatemic rickets AR hypophosphatemic rickets X-linked hypophosphatemia Fibrous dysplasia Intravenous iron infusion</p>
FGF-23 Deficiency	<p><b>FGF decrease primary</b></p> <p>Tumoural calcinosis FGF-23 ablation</p>	<p><b>FGF decrease secondary</b></p> <p>Low phosphorus diet Vitamin D receptor deficiency 1-<math>\alpha</math>-hydroxylase deficiency Npt2a deficiency Npt2c deficiency (HHRH)</p>

### Assay:

Intact FGF-23  
Diasorin Liaison XL Chemiluminescent immunoassay

### Reference interval:

23.2-95.4 ng/L.  
(Source: Manufacturer)

### Charge: \$90.

Please note: External laboratories may charge an additional handling fee.

### Sample Requirements:

Collect in EDTA tube.



Minimum volume 2mL.

If expecting a delay of >30 minutes transport to laboratory, place on ice. On arrival in laboratory, spin, separate and freeze ASAP.

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