

Evaluation of Hyperuricaemia

Suggested scheme for evaluation of Hyperuricaemia

Exclude

Potentially correctable contributory factors

- Obesity
- Alcohol
- Hypertriglyceridaemia
- Drugs (especially thiazides, but also diuretics, low doses of salicylates, nicotinic acid, pyrazinamide, ethambutol, and cyclosporin)
- Hypertension
- Low fluid intake

Consider

High purine intake

Diet (meats, yeast products)

Increased urate production

Primary

- Idiopathic
- Enzyme defects

Secondary

- Blood dyscrasias
- Infectious mononucleosis
- Malignancy
- Cytotoxic therapy
- Psoriasis
- Alcoholism
- Prolonged exercise

Decreased renal excretion

Primary

- Syndrome-X (insulin resistance, dyslipidaemia [increased TG, low HDL-cho], obesity, hypertension, hyperuricaemia)
- Idiopathic

Secondary

- Renal failure. If renal failure is causing the hyperuricaemia, serum creatinine will be > 0.40 mmol/L, serum urate will be < 0.65 mmol/L, and the ratio of urine urate to creatinine will be < 0.7 . If hyperuricaemia is causing the renal failure, then serum urate will be > 0.7 mmol/L and the ratio of urine urate to creatinine will be > 0.7 .
- Dehydration
- Diuretics
- Ketonaemia (starvation, diabetes mellitus)
- Hyperlactataemia (alcohol, toxemia of pregnancy)
- Drugs
- Hyperparathyroidism

If the cause is obscure

Consider 24-hour urinary excretion rate before and after a 5-day low-purine diet:

	Normal diet (mmol/24hr)	Low-purine diet (mmol/24hr)
High purine intake	> 6.0	< 4.0
Increased urate production	> 6.0	> 4.5
Decreased renal excretion	< 6.0	< 4.0 (often < 2.0)