



GENERAL HEALTH TESTING

Uric Acid Information Sheet

What is uric acid?

Uric acid is a normal waste product in the body, which forms as a result of purine breakdown. Purines are organic molecules that include nucleotides - the building blocks of DNA and RNA (1). They are found in high concentrations in meat and meat products, while plant-based diets are generally low in purines (2). Purine is filtered by the kidneys and excreted in urine and feces.

Normal reference ranges for blood uric acid levels are 3.7 - 7.7 mg/dL for adult males and 2.5 - 6.2 mg/dL for adult females (3).

What health complications are linked to elevated uric acid?

The most common complication of elevated uric acid (hyperuricemia) is gout, an inflammatory arthritis. Gout occurs when uric acid accumulates in the blood and tissues, leading to the formation of crystals within the joints. This results in joint pain and swelling, particularly in peripheral joints, such as the toes. Gout is significantly more common in males than females (4).

Hyperuricemia can also lead to uric acid nephrolithiasis (kidney stones), which account for about 7% of all kidney stones. Symptoms can include severe pain in the lower back, nausea and vomiting, blood in the urine, and urgent need to urinate (5).

What health complications are linked to reduced uric acid?

Reduced uric acid (hypouricemia) is usually benign, but may be a useful medical sign for other medical conditions. It can be caused by drugs that reduce uric acid production or increase the excretion of uric acid from the blood into the urine. Vegetarians are more likely to have hypouricemia, due to the low purine content of most vegetarian diets (6).

Medical conditions that can cause hypouricemia include Fanconi syndrome, hyperthyroidism, multiple sclerosis, nephritis, and Wilson's disease (7).

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Where can I find more info?

Visit www.genetrackdiagnostics.com for full test information, including specimen collection requirements

CONTACT US:

Email: support@genetrackdiagnostics.com

Phone: 1-888-802-0703

NOTE:

This brochure is provided for general information purposes only. It is not intended to replace medical advice from a health professional.

References:

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- (4) Williams LA. (2019). The History, Symptoms, Causes, Risk Factors, Types, Diagnosis, Treatments, and Prevention of Gout, Part 2. *Int J Pharm Compd*, 23(1), 14-21.
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- (6) Siener R & Hesse A. (2003). The effect of a vegetarian and different omnivorous diets on urinary risk factors for uric acid stone formation. *Eur J Nutr*, 42(6), 332-337.
- (7) Son CN, et al. (2016). Prevalence and possible causes of hypouricemia at a tertiary care hospital. *Korean J Intern Med*, 31(5), 971-976.