# Statement for Gout: Nucleotides

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Gout is a hereditary disturbance of the purine metabolism, mostly affecting men in the middle period of life. It is also, but seldom, found in women after the menopause. Humans are lacking an enzyme for the degradation of uric acid. Under "normal" circumstances the serum level of uric acid is around 420µmol/l. The proteins in the blood are able to cover and transport the uric acid and it is excreted via the kidney. If the serum level of uric acid is increased it crystallizes in the joints and other tissues, leading to acute attacks of gout. Around 30% of the men and 3% of the women are showing increased serum levels of uric acid. A maximum of 10% of all these people show symptoms of gout. In a primary case of gout the functionality of the kidney is reduced. In rare cases the overproduction of uric acid might lead to primary outbreaks of gout.
Secondary cases of gout are suffering from renal diseases, tumors, anemia, diabetes or using medications to increase renal functionality.
Primary cases of gout account on genetic disorders, disturbing the excretion of uric acid by the kidney. If those people eat lots of meat, fish or other food containing high concentrations of purines, the risk of falling sick with gout is increased.
Secondary cases of gout usually have a disturbance of the breakdown of cells. For example in cases of tumours (leukaemia) the functionality of the renal system is not guarantied. The breakdown of cells and the thereby induced metabolism of endogenous nucleotides is overloading the blood with uric acid. As this can not be excreted, the development of gout is significantly increased.

- Under normal conditions the resorption of purines is relatively low

- In healthy people purines are degraded to uric acid and excreted in the urine via the kidneys

- To develop gout a genetic predisposition or various diseases are required (even excessive meat eaters only develop gout if they have a genetic predisposition)

- Purines are normally stored in the gut and only absorbed if additional quantities are needed. Otherwise, the purines are excreted in the intestine.

Food supplement products that contain the proprietary nucleotide formula, Nutri-tide, are based on purified RNA and Nucleotides. The latter is a standardized formula of five pyrimidine and purine nucleotides, formulated to overcome major dietary deficiencies for these DNA and RNA nutritional building blocks, and to support cellular regeneration. Food studies show that it is the pyrimidine type nucleotides that are in short supply, since foods containing high levels of pyrimidine nucleotides, such as liver, are rarely eaten in the western diet.

- The composition of Nutri-tide favours the pyrimidine type nucleotides and better balances the concentration of purines in the gut.

For cellular regeneration to take place there needs to be the requisite number of purines and pyrimidine type nucleotides, to build the DNA and RNA. Food supplements containing Nutri-tide supply purified forms of all the nucleotides, thereby balancing nucleotides delivered by the diet, and reducing the likelihood for excess of purines or pyrimidines.

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Recommendations for practitioners with patients living with gout.

For patients living with gout, we suggest the following protocol for health practitioners to follow for the use of Food supplements containing Nutri-tide:

NB. Continue with current treatment for gout e.g. Allopurinol

At start: 135 mg total nucleotides daily
- e.g. 1 x 500 mg capsule of NuCell®IM or IntestAid®IB
- or 500 mg (1/2 scoop) nnnSPORT®X-Cell
- or 250 mg (1/3 scoop) *Nutri*-tide®NT

This is a relatively low dose of nucleotides - and the patient's response to this should be monitored.

If the patient does not react negatively to this initial dose:

Increase daily dosage to 250 mg total nucleotides daily
e.g. 2 x 500 mg capsules NuCell®IM or IntestAid®IB
or 1000 mg (1 scoop) nnnSPORT®X-Cell
or 500 mg (2/3 level scoop) *Nutri*-tide®NT

Monitor patient's response

If the response to the product is beneficial, then step by step increases to a higher therapeutic dose can be considered.

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