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0142 Estronex™ - 2/16 OH Estrogen Ratio in Urine - Interpretation Guidelines

Oestrogen metabolism

The body metabolises oestrogen into several different compounds that can impact on cancer development. Of these metabolites, the 2-Hydroxyestrogens (2OHE) tends to inhibit cancer growth, while 16-Hydroxyestrone (16OHE) actually encourages tumour development. Measuring the ratio of these metabolites provides an important indication of risk for oestrogen-sensitive cancers and certain diseases. This risk is modifiable through nutritional interventions, and these results should be evaluated in relation to the patient's individual presentation and history.

2-Hydroxyoestrogens

Normal levels (within the reference range) of this beneficial metabolite of oestrogen indicate a decreased risk for oestrogen-sensitive cancers and diseases. Low levels of 2OHE are responsive to dietary intervention as discussed below.

16-Hydroxyestrone

Normal or low levels are viewed as beneficial. If levels of this metabolite are higher than desirable, interventions including exercise, flaxseeds, soy products and fish oils are all beneficial at raising 2OHE and lowering 16OHE levels. Increasing the intake of the cruciferous vegetable is another way to increase the ratio of 2OHE to 16OHE. These vegetables include broccoli, cabbage and Brussels sprouts, which contain the beneficial compounds indole-3-carbonyl (I3C) and diindolemethane (DIM). These may also be taken in supplement form to enhance the ratio.

2OHE: 16OHE Ratio

If the ratio is greater than 2.0, this usually reflects healthy oestrogen metabolism, however if the ratio is low, there may be an increased risk of oestrogen-sensitive cancers and diseases. Follow up testing is strongly recommended in individuals with a low ratio to monitor response to nutrition interventions. An elevated 2OHE: 16OHE ratio may be associated with an increased likelihood of osteopenia. Measuring bone collagen peptides in the urine can assess bone turnover, and may be warranted.

Creatinine

This compound is excreted in urine at a relatively constant rate, depending on total lean muscle mass. It is measured in order to better standardize the amounts of other compounds measured in urine.