



TEST PATIENT

GUA d'Y'HYghBUa Y
 Sex : :
 DUHY Collected : 00-00-0000
 111 H9GH ROAD TEST SUBURB
@AB =8: 00000000 UR#:0000000

TEST PHYSICIAN

DR JOHN DOE
 111 CLINIC STF 99H
 7@B=7'GI 6I F 6'J =7" \$\$\$

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ENDOCRINOLOGY URINE

URINE, 24 HOUR	Result	Range	Units	
2-OH E1 (Protective Metabolite)	5.90	2.20 - 10.90	ug/24h	
16-OH E1 (Proliferative Metabolite)	1.86	1.50 - 1.90	ug/24h	
2/16-OH E1 Ratio (Anti-Prolifitive Index)	3.17	> 2.00	RATIO	

Estrone Metabolites Comments

URINE 2OH-E1 METABOLITE COMMENT:

These estrogens have been named "good estrogen" and by some authors are thought to be cancer protective estrogens. Their role and impact in males has not been adequately researched or published. Most of the research has been done relative to women's breast cancer.

URINE 16a(OH)-E1 METABOLITES:

High/Elevated levels of 16aOH-E1 have been associated with an increase risk in breast cancer. 16aOH-E1 is the immediate precursor to the weak estrogen, estriol (E3). Lowering levels of 16aOH-E1 have been achieved via indole-3-carbinol or one of its metabolites, di-indol methane (DIM). Soy and flax meal have also been shown to lower 16aOH-E1 levels. Postmenopausal women with high levels of 16aOH-E1 may want to forego estradiol and estrone therapy in favour of E3 and progesterone. Please also note that 16aOH-E1 is important for maintaining bone mineral density.

2(OH):16a(OH)-E1 METABOLITE RATIO

Target Range:
 Ratio > 2.0 Beneficial
 Ratio < 2.0 Increased risk of Breast Cancer

Patients with a ratio less than 2.0 may benefit from a modification in diet and lifestyle. The supplementation of the diet with phytoestrogens may further improve the ratio. A high protein, low fat diet rich in dietary sources of indole-3-carbinol may also improve the 2/16 ratio. Diindolylmethane (DIM) has also been shown to improve the 2/16 ratio.