SydPath
ST VINCENT'S PATHOLOGY

www.sydpath.com.au

FREE TESTOSTERONE INFORMATION SHEET

PHYSIOLOGY

The calculated free testosterone uses individual measurements of total testosterone, SHBG and albumin in serum and the Vermuelen equation* to calculate the results.

REFERENCE INTERVALS

Males: 18 – 50 years: 200 – 700 pmol/L >50 years: 150 – 400 pmol/L

Females: 18 – 50 years: <25 pmol/L >50 years: <18 pmol/L

The individual components are validated for accuracy against international standards. Calculated free testosterone is more commonly provided by Australian pathology labs. Results available daily.

CLINICAL USE OF FREE TESTOSTERONE RESULTS

In men the total testosterone is the preferred indicator of androgen status. A free testosterone will only add further information in the setting of extremes of SHBG concentration. The effects of changes in SHBG and albumin are generally small compared with the effect of the total testosterone on the free testosterone value.

In women there are two estimates of free testosterone, cFT and the free androgen index (FAI). While total testosterone remains the primary tool for assessing increased androgen status, either free testosterone or FAI may be of use in patients with abnormal values for SHBG. Note that no routine assays at SydPath are able to assist with identification of low androgens in women.

Cautions with the use of calculated free testosterone results: cFT should not be relied upon in situations with potential massive interference by steroids binding to SHBG; e.g. in women during pregnancy or in men during treatment inducing high levels of dihydrotestosterone.