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TECHNICAL BULLETIN

April 19, 2018

SEX HORMONE BINDING GLOBULIN (SHBG)

Effective April 19, 2018, **Sex hormone binding globulin (SHBG)** testing will be performed at Methodist Pathology Center, providing better turnaround time and cost efficiency.

Clinical information:
Sex hormone binding globulin (SHBG) is produced by the liver and binds hormones testosterone, dihydrotestosterone (DHT), and estradiol. In this bound state these hormones are transported as biologically inactive forms. This test measures the level of SHBG in the blood and is most often used to help evaluate for testosterone deficiency or excess.

For evaluation of SHBG in conjunction with free and total testosterone in males over 14 years of age, please use **Testosterone panel for adult males.**

In women, SHBG plays an integral role in regulating the levels of bioavailable male sex hormones (androgens) and estrogens circulating throughout the body. SHBG has a higher affinity for the androgens testosterone and DHT and so, in the setting of low SHBG, women may have signs and symptoms related to androgen excess.

For evaluation of SHBG in conjunction with free and total testosterone in females and males under 14 years of age, please use **Testosterone Total and Free Females or Children,** performed at ARUP laboratories.

An SHBG test may be performed when a person's signs and symptoms do not correlate with the results of a total testosterone test.

Availability:
The SHBG will be performed 24 hours a day/7 days a week.

Specimen requirements and stability:
2.0 mL Serum Separator tube (Gold top) or Lithium heparin plasma tube (Light green top). Specimen is stable after separation from cells for 48 hours at ambient temperature, for 1 week refrigerated, and for 2 months frozen.

Reference ranges:

Age	Male	Female
1-30 days	13-85 nmol/L	14-60 nmol/L
31-364 days	70-250 nmol/L	60-215 nmol/L
1-3 years	50-180 nmol/L	60-190 nmol/L
4-6 years	45-175 nmol/L	55-170 nmol/L
7-9 years	28-190 nmol/L	35-170 nmol/L
10-12 years	23-160 nmol/L	17-155 nmol/L
13-15 years	13-140 nmol/L	11-120 nmol/L
16-17 years	10-60 nmol/L	19-145 nmol/L
18 years and older	11-80 nmol/L	30-135 nmol/L
Tanner Stage I	26-186 nmol/L	30-173 nmol/L
Tanner Stage II	22-169 nmol/L	16-127 nmol/L
Tanner Stage III	13-104 nmol/L	12-98 nmol/L
Tanner Stage IV	11-60 nmol/L	14-151 nmol/L
Tanner Stage V	11-71 nmol/L	23-165 nmol/L

Please direct any questions to the Pathology Center Client Services (402) 354-4541, Dr. George Bedrnicek at (402) 955-5528 or Dr. Deborah Perry at (402) 354-4559.