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## **INVESTIGATION OF NORMAL HCG RANGES DURING PREGNANCY IN RUSSIAN POPULATION WITH TWO-SITE MONOCLONAL ELISA**

**Background.** Level of human chorionic gonadotropin (HCG) is an important marker for prenatal screening.

**Methods.** Serum concentration of HCG was measured using a monoclonal two-site ELISA (DS-EIA-GONADOTROPIN-HCG).

**Results.** 817 samples of serum from white women (Central Russia and Volgo-Viatsky Region, mean age 27 years, range from 16 to 40 years) with normal pregnancy have been measured. Results of analysis were ranged according to the gestational week. Median, 2.5 and 97.5 percentile were calculated for every group: 1-3 gestational weeks: median 7740mIU/ml, normal range from 50 to 15000mIU/ml; 3-4 gestational weeks: median 20100mIU/ml, normal range from 1200 to 30000mIU/ml; 4-5 gestational weeks: median 33800mIU/ml, normal range from 2500 to 85000mIU/ml; 5-6 gestational weeks: median 67200mIU/ml, normal range from 8500 to 155000mIU/ml; 6-7 gestational weeks median 108100mIU/ml, normal range from 12000 to 215000mIU/ml; 7-8 gestational weeks median 132900mIU/ml, normal range from 35000 to 255000mIU/ml; 8-9 gestational weeks: median 149200mIU/ml, normal range from 40000 to 280000mIU/ml; 9-10 gestational weeks: median 137800mIU/ml, normal range from 35000 to 250000mIU/ml; 10-11 gestational weeks: median 114600mIU/ml, normal range from 30000 to 205000mIU/ml; 11-12 gestational weeks: median 100600mIU/ml, normal range from 16000 to 195000mIU/ml; 13-14 gestational weeks: median 60400mIU/ml, normal range from 16000 to 165000mIU/ml; 15-16 gestational weeks: median 35000mIU/ml, normal range from 9500 to 100000mIU/ml; 17-21 gestational weeks: median 30100mIU/ml, normal range from 7000 to 75000mIU/ml.

**Conclusions.** We defined normal limits of serum HCG in Central Russia population with “DS-EIA-GONADOTROPIN-HCG”. It is necessary for estimation of abnormal pregnancy risk.

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