

## Determine Reference Intervals for Selected Clinical Chemistry Parameters Using Selected Healthy Adult Population in Sri Lanka

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This study was aimed to determine the reference interval values for selected clinical chemistry parameters: Full Blood Count, ESR, TSH, blood sugars, liver function test, lipid profile test, and renal profile test using selected healthy adult population of Colombo city, Sri Lanka. Data was collected from March 2019 - October 2019 using a selected total of 991 healthy adults (656 males and 335 females) population in the Nawaloka Hospital laboratory database. Descriptive statistics were used to calculate mean, median, 2.5<sup>th</sup> - 97.5<sup>th</sup> percentiles range, 95% CI, maximum, and minimum using Minitab 17.3.1 software. Data were statistically analyzed using the paired sample T-test and one-way ANOVA to see the association between age and gender. There was a significant difference ( $p < 0.05$ ) between gender and the levels of eosinophil, basophils, haemoglobin, PCV, MCHC, RBC, MCH, MCV, platelet count, specific gravity, TSH, ESR, Albumin, Globulin, Bilirubin, ALT, GGT, AST, Triglyceride, HDL, Total HDL ratio, VLDL, Urea, Creatine, Uric acid Calcium and Phosphorus. Further, there was a significant difference in the values of WBC, Hemoglobin, PCV, RBC, MCH, MCV, platelet count, TSH and ESR, ALT, total cholesterol, triglycerides, HDL, LDL, Total HDL ratio, VLDL, Chloride, Creatine, Phosphorus, FBS and PPBS ( $p < 0.05$ ) according to the age groups.

**Keywords:** *reference interval, biochemical investigation, liver function test*