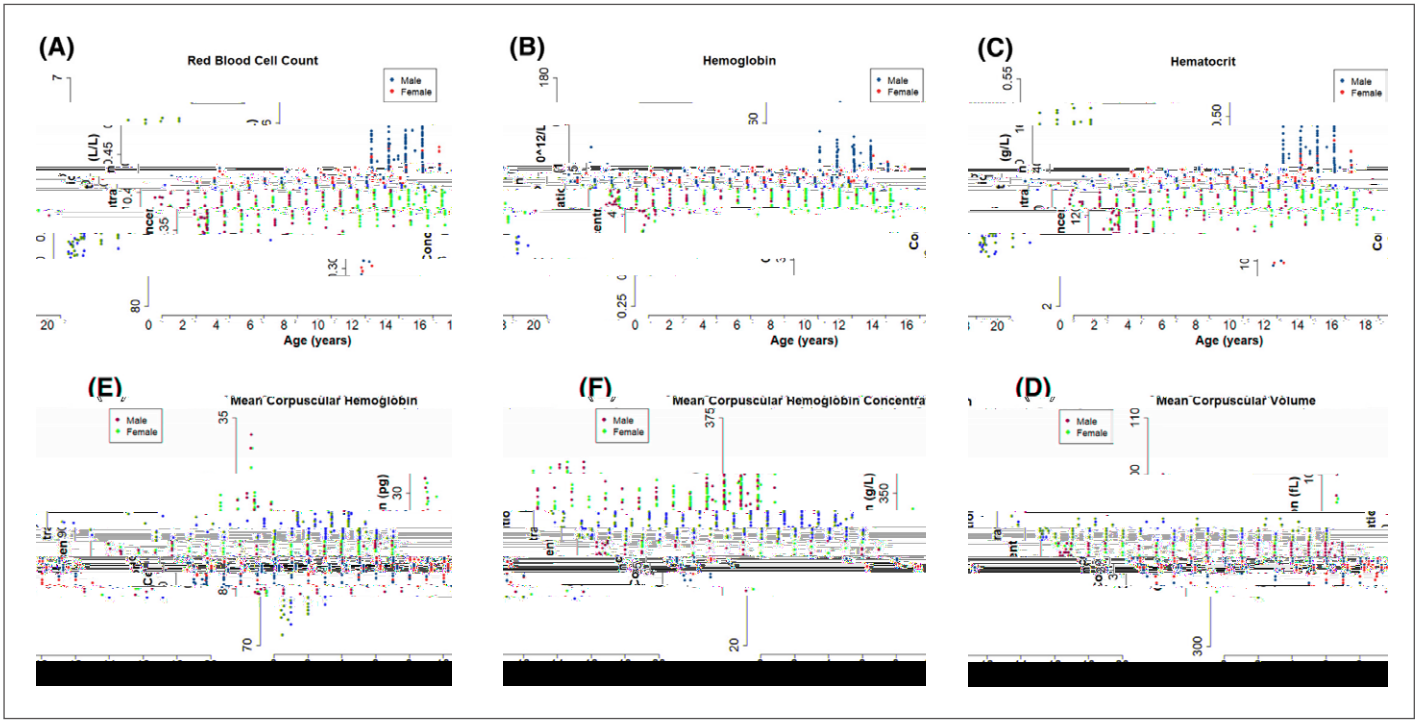
What is CALIPER?

O□cial website: https://caliperproject.ca/

This study reveals statistically significant age-specific differences in 52 out of the 79 hematological parameters, requiring age partitioning. An additional 11 parameters including RBC count, HGB, HCT, MCV, MCHC, RDW-CV, HDW, macrocyte count, Macro%, RBC count (optical), and RPI indicated sex-specific differences, particularly during the pubertal period (i.e., 14 to <19 years).

Reference range for erythrocyte parameters

RBC count, HGB and HCT displayed considerable variability during the first year of life (30 days to <1 year) and remained relatively stable from 1 year to <14 years. However, during the pubertal period, sex-specific differences were observed in most erythrocyte parameters, with the exception of NRBC count and percentage, RDW-SD, Micro%, and MCH.



Fg re 1. Age- a d e - /ec c/efe/e ce a ed , b , e CALIPER c , f ea , c d/e a dad e ce , f (A) /ed b d ce (RBC) c , (B) e g b (HGB), (C) e a, c , (HCT), (D) ea c/ c a e (MCV), (E) ea c/ c a e g b (MCH), a d (F) ea c/ c a e g b c ce , /a, (MCHC).

Reference range for leukocyte parameters

Analysis of the distribution of reference values for the main leukocyte parameters (Figure 2) showed the following trends: (1) WBC, monocyte and lymphocyte counts decreased with age, (2) neutrophil count increased with age, and (3) basophil count remained consistent with age.

Reference range for platelet parameters

Platelet counts, as measured by both optical and impedance methods, as well as PCT showed a consistent decrease