

KiGGS – The German Health Interview and Examination Survey for Children and Adolescents

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Body measurements of children and adolescents in Germany. Results of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS)

Abstract In the nationwide German Health Interview and Examination Survey for Children and Adolescents (KiGGS), a number of anthropometric parameters were assessed in a standardised way in 17,641 boys and girls. To this end, body weight and height, head circumference and upper arm length, as well as two skinfold thicknesses (triceps, subscapular) were measured for the entire age range (0–12 years); starting from 6 years of age, elbow breadth and from 11 years of age waist and hip circumference were measured in addition. For all parameters, means with confidence intervals are reported per age (in years) and gender. Median graphs depict the changes with increasing age according to gender for each body measurement. The complex age-related anthropometric developments along with significant gender specificity show the full range of the dynamic physical development in boys and girls. Based on skinfold measurement data, the body fat percentage was estimated. Thickness and location of the skinfolds, as well as the calculated waist-to-hip ratio is used as an indicator for gender-specific fat distribution. Using the frame index, it is attempted to estimate skeletal robustness. For the anthropometric parameters studied, hardly any regional differences were found. However, head circumference, frame index and all parameters strongly associated with body fat show a significant social status gradient. Children and adolescents with migration background have on average a lower height, larger waist circumference and higher percentage of body fat.

Keywords Health survey - Children - Adolescents - Anthropometry - Body measurements
