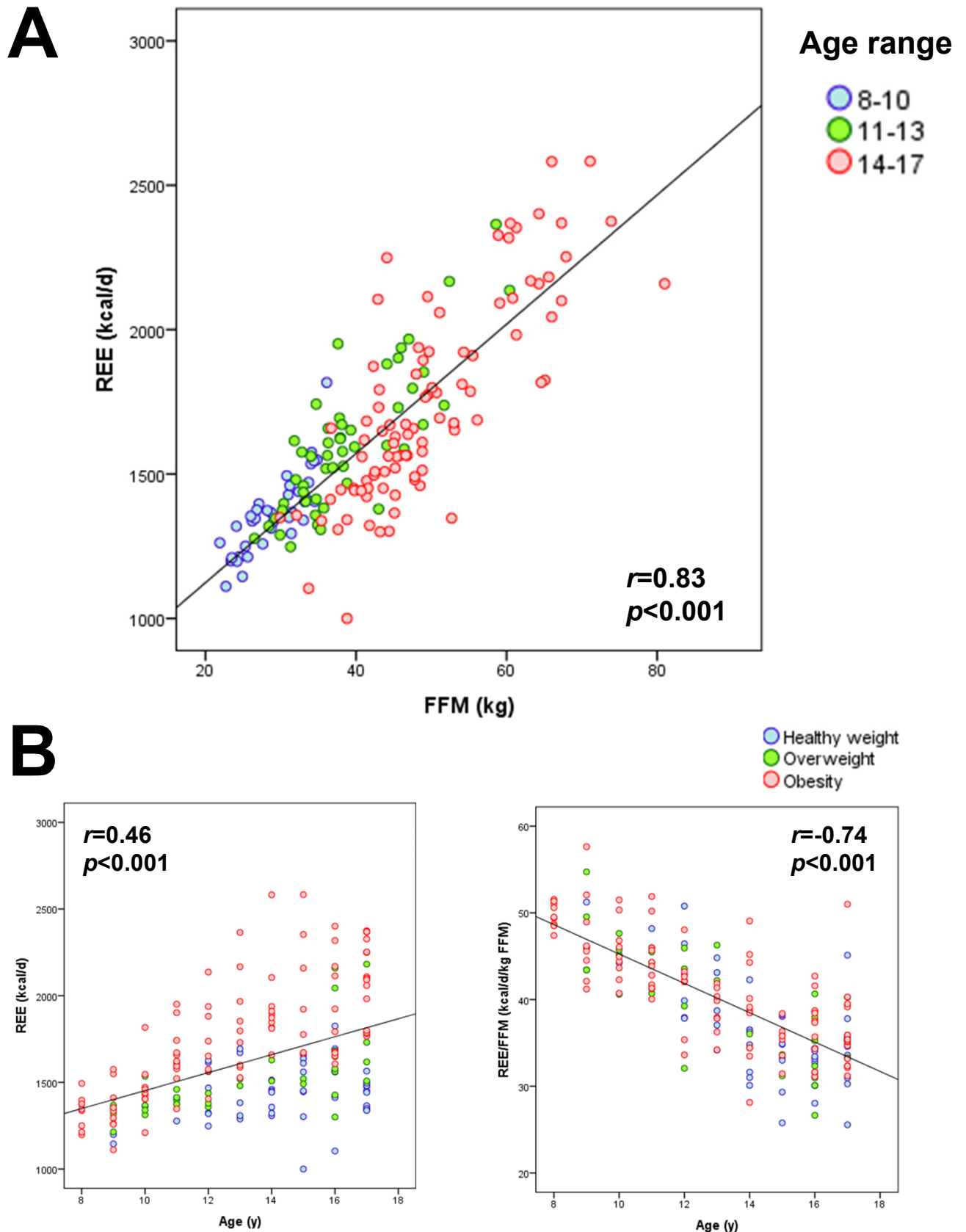
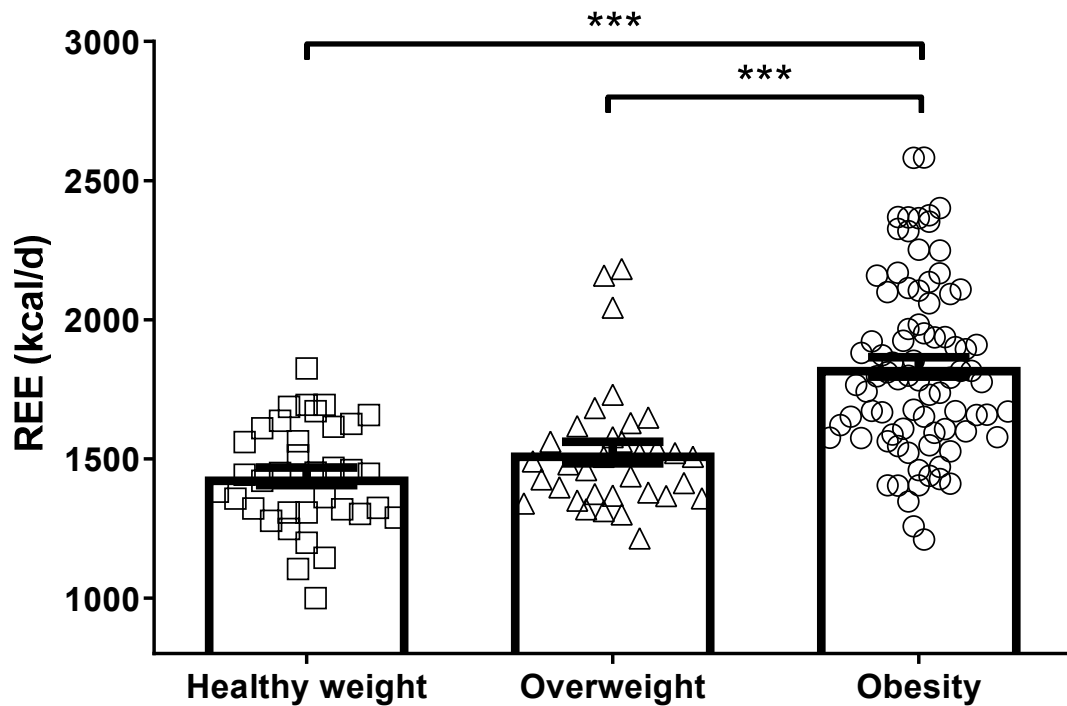
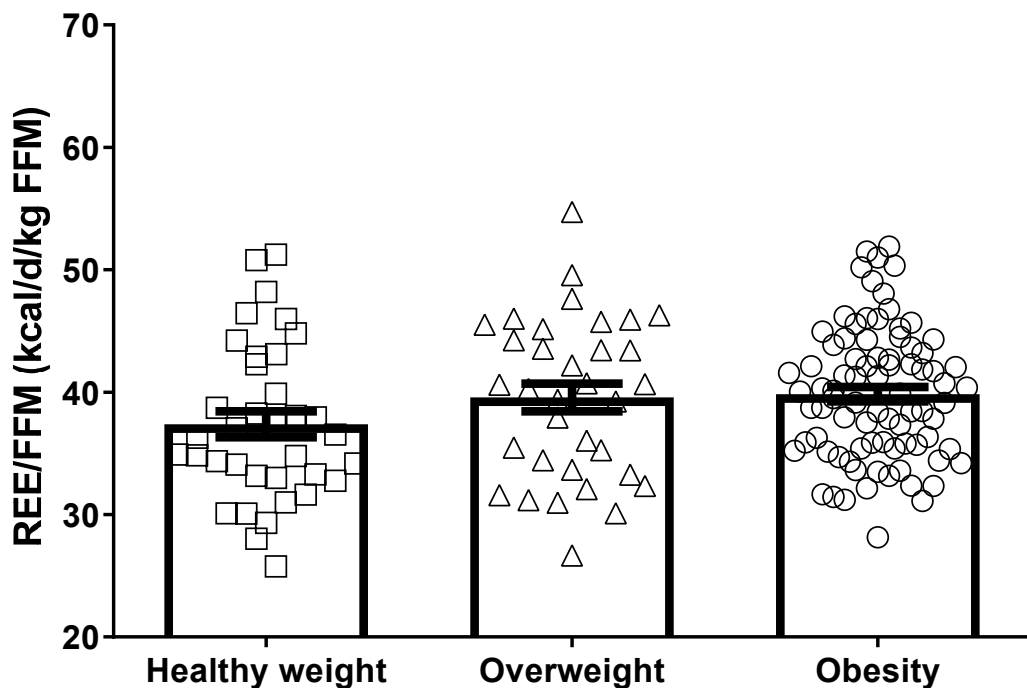
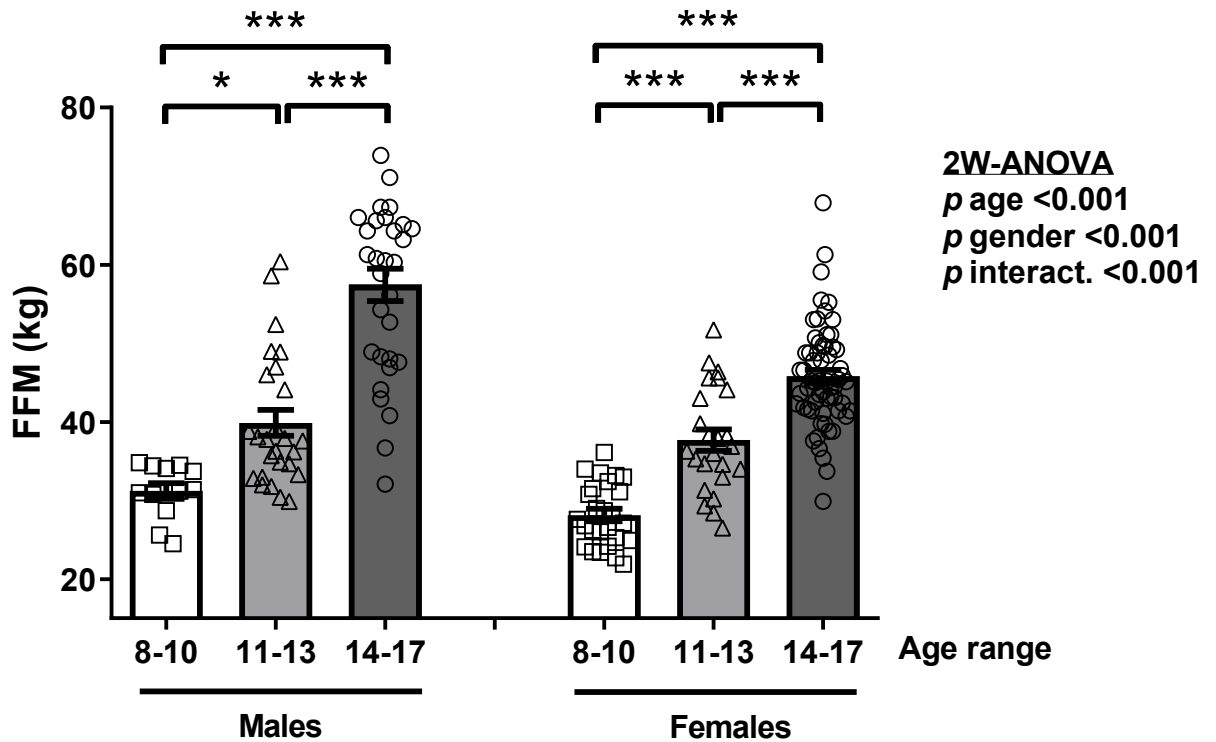
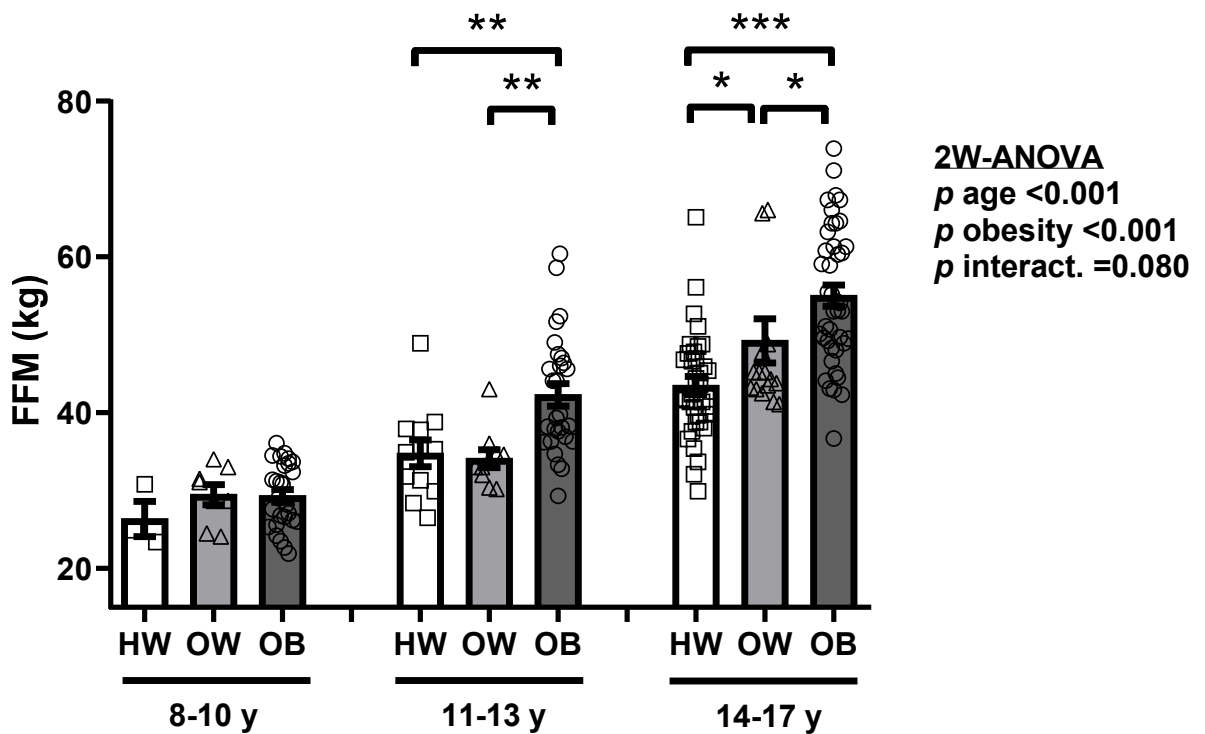




Supplementary Figure 1: (A) Scatter diagram showing the correlations of FFM with absolute REE in the whole sample of children and adolescents ($n = 181$). Age groups (8-10, 11-13 and 14-17 years) are indicated by different colors. Pearson's correlation coefficient (r) and p values are indicated. **(B)** Scatter diagrams showing the correlations of age with REE (left) and REE/FFM (right). Ponderal groups (healthy weight, overweight and obesity) are indicated by different colors. Pearson's correlation coefficient (r) and p values are indicated.

A**B**

Supplementary Figure 2: Comparison of absolute REE (**A**) and normalized by FFM (**B**) in the children and adolescents with healthy weight, overweight or obesity matched by age ($n = 153$). Values are means $\pm$ SEM. Statistical differences between groups were analyzed by ANOVA followed by LSD tests. *** $p < 0.001$ between groups. REE, resting energy expenditure; FFM, fat-free mass.

A**B**

Supplementary Figure 3: (A) Comparison of FFM in the whole sample of children and adolescents ($n = 181$) segregated by gender and age groups (8-10, 11-13 and 14-17 years). Values are means $\pm$ SEM. Differences between groups were analyzed by two-way ANOVA (age $\times$ gender). Differences between age groups within each gender were analyzed by ANOVA followed by LSD tests. **(B)** Comparison of FFM in the whole sample of children and adolescents segregated by age groups and ponderal status (healthy weight, overweight and obesity). Values are means $\pm$ SEM. Differences between groups were analyzed by two-way ANOVA (age $\times$ obesity). Differences between weight groups within each age group were analyzed by ANOVA followed by LSD tests. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$ between groups. FFM, fat-free mass.