SUPPLEMENTARY MATERIAL



Figure S1. Mappings of significant subcortical nuclei expansions/contractions related to cardiorespiratory fitness (maximal oxygen consumption, VO2max). The color bar indicated the significance corrected p-values, with blue indicating significant negative associations between predictor and outcome, yellow indicating significant positive associations and grey indicating no association. All the analyses were controlled for age at first evaluation visit, the time difference between MRI and fitness assessments, sex, socioeconomic status of the family, birth weight, body mass index, and total intracranial volume. Only the associations at a significance level <0.025 are represented in this figure.



Figure S2. Mappings of significant subcortical nuclei expansions/contraction related to handgrip strength. The color bar indicated the significance corrected p-values, with blue indicating significant negative associations between predictor and outcome, yellow indicating significant positive associations and grey indicating no association. All the analyses were controlled for age at first evaluation visit, the time difference between MRI and fitness assessments, sex, socioeconomic status of the family, birth weight, body mass index, and total intracranial volume. Only the associations at a significance level <0.025 are represented in this figure.



Figure S3. Mappings of significant subcortical nuclei expansions/contraction related to lower-body muscular strength as measured by the standing long jump. Only the most significant sides of the nuclei are displayed. The color bar indicated the significance corrected p-values, with blue indicating significant negative associations between predictor and outcome, yellow indicating significant positive associations and grey indicating no association. All the analyses were controlled for age at first evaluation visit, the time difference between MRI and fitness assessments, sex, socioeconomic status of the family, birth weight, body mass index, and total intracranial volume. Only the associations at a significance level <0.025 are represented in this figure.



Figure S4. Mappings of significant subcortical nuclei expansions/contraction related to speed-agility. Only the most significant sides of the nuclei are displayed. The color bar indicated the significance corrected p-values, with blue indicating significant negative associations between predictor and outcome, yellow indicating significant positive associations and grey indicating no association. The lower the score in the 4x10m shuttle run test (i.e. less seconds to cover a fixed distance) the higher the performance (i.e. the faster and more agile the child is). Consequently, negative association actually means positive associations between speed-agility performance and enlargements of subcortical nuclei. All the analyses were controlled for age at first evaluation visit, the time difference between MRI and fitness assessments, sex, socioeconomic status of the family, birth weight, body mass index, and total intracranial volume. Only the associations at a significance level <0.025 are represented in this figure.