

**Longer kickers are better fitted to elite junior soccer players than husky or early mature boys.**

TAKAI, S. (Institute of Health and Sport Sciences, University of Tsukuba), TAKEUCHI, S. (Waseda Junior High / High School)

**PURPOSE:** This report investigated the morphological and physiological factors to select elite players of an excellent junior soccer team.

**METHODS:** The participants were 24 elite and 29 non-elite players of 10.7 – 11.8 years old. Height, weight and skinfold thickness were measured directly. Percent adult height was estimated by BTT model of AUXAL3 program. The fitness test consisted of records from 50m dash, triple jump, ball throw, long kick, agility run, slalom dribble and 20m-shuttle` run.

**RESULTS:** 1) The best discriminant model with minimum AIC estimate was  $z = -3.389 + 0.171 \cdot \text{Height} - 0.348 \cdot \text{Weight} + 0.207 \cdot \text{Skinfolds} - 1.345 \cdot \text{50m dash} + 1.280 \cdot \text{triple jump} + 0.152 \cdot \text{long kick} - 0.983 \cdot \text{agility run}$ . Cross validation by the bootstrap method yielded the hit ratio of 88%. 2) The classification tree method showed the long kick as the most important factor to categorize the groups. The second best factor was agility run and triple jump followed to 50m dash, height and skinfolds, and then the least factor was weight. 3) Though questionnaire showed that coaches could select elite players based on ability for ball controlling and dribbling.

**CONCLUSION:** Physical fitness was useful to select elite junior soccer player than physical maturity or physique. Physical maturation estimated by percent adult height did not affect to classify the groups. But elite soccer players were selected by exquisite abilities of long kicking, power and agility.