Studies on the Relation between Nutrition and Growth of the Youth and Boys

Effects of excess intakes of calories and proteins are investigated on school boys in dormitories of colleges (18-19 of age) and of middle schools (13-16 of age). By taking 10-20% excess calories and 10-23g excess protein from the control, the growth in the body weight and in the girth of chest were acceleratated, while the growth in the length and the muscle strength were not affected. The growth in body weight was acceleratated by 10 g per day among middle school boys by taking 100 Cal. excess food daily, while by 13 g per day in college students. The amount of protein retention estimated by nitrogen balance method corresponded to 23-34% of body weight increase in college students, while 9-19% in middle school boys.