[Jpn. J. School Health, 38, 34-47 (1996)]

[Lab. of Health and Physical Education]

Basic Study on Health, Physical Fitness and Life Style of Graduates at University and the Ideal of Education during the University Period

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The main purposes of this study is to grasp the situation of health and physical fitness, and life style of graduates at university and to relate them to those of general social workers in order to supply fundamental data on the ideal of health and physical education in university. The necessity of physical exercise through the university periods is answered positively at 80% in the inquiries, which suggests that they anticipate the physical exercise in university curriculum.

[Jpn. J. School Health, 38, 315-322 (1996)]

[Lab. of Health and Physical Education]

Relationship between Bone Mineral Density of Body Build, Physical Fitness and Growth History Observed in Women's College Students

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In order to clarify the some factors which influence on bone mineral density, the present research was undertaken to characterize some relationships among the body build, the physical fitness and the growth history of the student (18-years-old) before entrance into women's college. As a conclusion the exercise and the nourishment or nutrition were focused on the life style during growing stage, and they have influences on the maximum acquisition of bone mineral content.

[J. Appl. Nutr., 48, 10-21 (1996)]

[Lab. of Health and Physical Education]

## Immunomodulation by Maharishi Amrit Kalash 4 in Mice

RYOICH INABA, HARUO SUGIURA\*, HIROTOSHI IWATA, HIROSHI MORI, TAKUJI TANAKA The effects of ingestion of Maharishi Amrit Kalash 4 (MAK 4), one of the Ayurvedic food supplements, on immune function were evaluated in male A/He mice aged 7 weeks. Production of nitric oxide (NO) by peritoneal macrophages and proliferation of spleen cells stimulated by mitogens was examined in mice given MAK 4 by gastric intubation at the doses of 10, 50, and 100 mg/kg once a day for 20 days. Macrophage production of NO stimulated by lipopolysaccharide in MAK 4 treated mice at all doses was significantly increased (p<0.01). Stimulation indices both by Con A and PHA in the MAK 4 treated groups at all doses were significantly higher than those of the control group (p<0.05). Splenocyte production of interleukin-2 stimulated by Con A in the MAK 4 treated mice at all doses was significantly increased (p<0.01).