

P-4 Observation of activities of Japanese people sitting on the train or subway in 1999

Junko KATAOKA¹⁾, Jun IWATAKE¹⁾, Atsushi HAYAMI¹⁾ and Satoshi SHIBATA²⁾

1) Japan Women's College of Physical Education

2) Microsoft

In 1987, we observed 7,771 people and in 1997 5,602 people. Using the same methods, this study was done in the autumn of 1999. Eight thousand and nine hundred people were observed. The observers included 32 trained female college students. The data were compared with the past two sets of data that were collected previously (1987 and 1997). Though other items were observed, this report focuses only on the activity people did while trains and subways. Forty one percent of the total number of subjects observed in 1999 were engaged in work. In 1997, this percentage was 33%, and it was 32% in 1987. The percentages of males engaged in work were 70% in 1987, 61% in 1997 and 58% in 1999. Reading was the most common work-related activity. However, in 1999 the most common activities involved PHS, games and computers, etc., other than reading which increased from 16.9% in 1987, 28.3% in 1997, and 33.2% in 1999.

P-6 Effects of Thermal Environment on Body Temperature in The Elderly and The Young Male

Takafumi MAEDA, Kazuko TANAKA, Akihiko SATO, Toshio KOBAYASHI, and Masatoshi TANAKA

Department of Hygiene and Preventive Medicine, Fukushima Medical University School of Medicine

This study aimed to evaluate the change of the acclimatization to thermal environment with the aging by the comparison of the elderly and the young. Healthy seven elderly (62.6 ± 1.40 yr) and seven young males (22.7 ± 3.64 yr) participated in this study as the subject. After they rested for 60 min in the pre-room at air temperature (T_a) 28°C, they exposed to each thermal condition (T_a : 20, 28, or 36°C) for 90 min in climatic chamber. And then they returned to pre-room (post-room), rested for 30 min. Sublingual (T_{sub}) and skin temperatures (T_{skin} : 9 points) were measured at every 5 min. This study was carried out in the winter. T_{sub} of the elderly was significantly higher ($P < 0.05$) than that of the young in 20 and 36°C T_a . T_{sub} of the elderly was maintained higher value than that of the young in 36°C T_a after exposure. However, T_{sub} of the elderly was lower than that of the young from just before the end of exposure to the end of post-room in 20°C T_a . In this result, the following as the factors of age differences are considered degradation of thermoregulatory ability by the skin blood vessel and lowering of the basal metabolic rate with the aging.

P-5 Changes in AMS score and SpO_2 during high altitude mountaineering

Toshio KOBAYASHI, Junko EBI, Takafumi MAEDA, and Masatoshi TANAKA

Department of Hygiene and Preventive Medicine, Fukushima Medical University, School of Medicine

SpO_2 (oxygen saturation) has been used to predict AMS (Acute Mountain Sickness). We measured both SpO_2 and AMS score every evening during mountaineering in Mt. McKinley (6194m), and examined the usefulness of AMS score as a predictor of AMS. The subjects were three male and one female (age: 26-59yr). Mean SpO_2 decreased with climbing up, and increased with climbing down. Mean AMS score increased with climbing up, decreased gradually during staying at the same altitude (Base Camp; 4500m), rose up to 8.75 at the peak, and decreased again with climbing down. A significant negative correlation ($r = -0.88, p < 0.01$) was recognized between SpO_2 and AMS score, which implies the usefulness of AMS score as a predictor of AMS. Measuring both SpO_2 and AMS score is important for more accurate estimation of the severity of AMS.