

## Health-Related Physical Fitness of Workers with Different Ages and Genders in a Hospital

Kwan-Hwa Lin<sup>1</sup> Yuh Jang<sup>2</sup> Mei-Wun Tsai<sup>3</sup> Meng-Yueh Chien<sup>1</sup> Li-Ying Wang<sup>1</sup>  
Hau-Jun Ho<sup>1</sup> Yu-Wen Young<sup>2</sup> Po-Ting Hu<sup>1</sup> Chien-Hsun Chen<sup>1</sup>

**Purpose:** Health-related physical fitness (HRPF) includes cardiopulmonary endurance, muscular strength, body composition and flexibility. The objective of this study was to compare the HRPF of workers with different ages and genders in a hospital. **Methods:** Totally 285 volunteers in a hospital (including therapists, administrators etc.) received the HRPF test, which collected the data of body composition (body mass index, waist-hip ratio), strength (grip strength), flexibility (trunk flexion in standing), and cardiopulmonary endurance (step test). The modified Harvard step test was used to obtain the physical fitness index. **Results:** Male workers with different ages (20-64 years old) did not have significant differences in body mass index, grip strength, trunk flexibility, and physical fitness index, except that the waist-hip ratio in young males was smaller than those in the middle aged and elderly,. Young females had body mass index, grip strength and waist-hip ratio smaller ( $p < 0.05$ ) than those in the middle aged and elderly. Female workers with different ages did not have significant differences in, trunk flexibility, and physical fitness index. **Conclusions:** The easy and safe physical fitness tests can be used as the screening test for the assessment of health condition of workers. These results may provide information not only for personal health care but also for health policy management. (FJPT 2005;30(1):27-32)

**Key Words:** Physical fitness, Step test, Body composition

---

<sup>1</sup> School and Graduate Institute of Physical Therapy, National Taiwan University.

<sup>2</sup> School and Graduate Institute of Occupational Therapy, National Taiwan University.

<sup>3</sup> Institute and Faculty of Physical Therapy, National Yang-Ming University.

Correspondence: Kwan-Hwa Lin, School and Graduate Institute of Physical Therapy National Taiwan University, No. 1, Jen Ai Rd., Section 1, Taipei, Taiwan. Tel: 02-23123456-7558 E-mail: khlin@ntu.edu.tw

Received: Jun 11, 2004 Accepted: Nov 22, 2004