INTRODUCTION

Numerous types of human activity recording systems have been developed for measuring the duration and timing of sleep/wake conditions. These systems are limited by recording only general activity. However, it is important to simultaneously record both activity and physiological parameters, such as respiration. This microcomputer-based respiratory and activity recording system is capable of detecting a life-threatening physical condition, such as stroke or cardiac/respiratory arrest.

CONCLUSION

The developed system employs the thin piezoelectric sensor, which can record the body movements. The high and low frequency components from the recorded body movements are discriminated by high and low pass filters. The high frequency components reflect the body movements produced by cardiac vibrations, walking and running activities. The low frequency components are mainly generated by respiration. The subject's general health condition and living patterns, as well as the effects of many immediate physiological and psychological conditions, may be obtained from these respiration and activity data.