

# Self-management of health based on the action mechanism of daily behaviors such as food, exercise and sleep

**Extension of healthy life expectancy by the self-management of sleep and exercise using EEG as a marker of sound sleep**

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## Summary :

To extend the healthy life expectancy, it is essential to solve sleep-problems of many elder people lacking exercise and suffering from insomnia (30% of prevalence). Aiming to solve the problems, we conduct following studies.

1. We elucidate a mechanism of the improvement of sleep by exercise, and then develop an efficient exercise program based on the mechanism.
2. We develop a sleep measuring system to be used at home, and build up the big data of Japanese sleep. By analyzing the big data, we identify characteristic feature of EEG as a marker of 'good sleep.'
3. We develop a self-management system using the marker and the exercise program.

