



## Exercise Biochemistry Review

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### Application of Wireless Heart rate system in Men's Freestyle

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**Objective** Using heart rate wireless system to continuously track the morning pulse of male freestyle wrestlers after different training loads. The basic value of individual morning pulse and the interval of variation of individual morning pulse after class were established for the elite players.

**Methods** The paper is based on 6 elite male freestyle wrestlers, we continuously test morning pulse after different training load and recovery period, then fill in fatigue questionnaire. We use Spss statistical software to carry out statistical treatment of the experimental data, and analysis the descriptive, difference, correlation and reliability of data.

**Results** Men freestyle athletes base morning pulse at 43-47 / min. After high intensity, the morning pulse increased by about 6%-11%, and the range of change was basically consistent with the change of subjective feeling and heart rate in training class. The average (X) and standard deviation (SD) of the morning pulse in high intensity training class were different from each other. Combined with the results of training diary and fatigue questionnaire, the players appeared body and psychological fatigue and complained that they felt very tired. The X-SD~X SD interval can be used as the early morning pulse range for evaluating athletes' fatigue after high intensity class. The morning pulse and SpO<sub>2</sub> was associated with exhaustion of emotional energy, negative evaluation of exercise, decreased sense of achievement, and no significant correlation with heart rate fatigue. However, these three dimensions were significantly related to mental fatigue,  $r>0.934$ .

**Conclusions** After high intensity, the morning pulse increased significantly compared with the basic value of morning pulse. Combined with questionnaire survey and training diary feedback, the subjective feeling of body appeared fatigue after high intensity class, which was also consistent with the change of morning pulse. Can be based on individual morning pulse changes to learn about the high intensity class fatigue situation. The morning pulse after high intensity can reach the fatigue interval, which indicates that the training intensity can stimulate the body greatly, and the gradual recovery of the morning pulse can be regarded as the state of whether or not there is overfatigue. If maintain oneself high level all the time, need to adjust training intensity in time. If you can gradually recover close to the basic value, the large-intensity training class can be well adapted to the body.