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## A Fact-finding Study on Consciousness of So-called Muscle Hardness

By *Mitsuyoshi Murayama\**  
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The purpose of this study was to investigate the consciousness of the "Muscle Hardness" in athletes, which was a condition of muscle measured by human tactile or palpation. A total of 624 college students voluntarily participated in this study and they answered to questionnaires. The results were as follows:

1) There were two notions in regard to the "Muscle Hardness", elasticity in touching and extent of range of motion. A number of athletes who were high performance level, answered the former. Conversely, the proportion of the latter was high in low level athletes or non-athletes.

2) In the answer of self-evaluation of Muscle Hardness, "rather soft" and "rather hard" were high ratio. Then in athlete group, the degree of self-evaluation of Muscle Hardness differed among the different performance level.

3) The percentage of the answer that having a custom of sports massage or utilizing Muscle Hardness as criterion of self-condition, was high in the higher performance level athletes.

According to these results, it is suggested that the consciousness of Muscle Hardness differed with the performance level. The higher level athletes has high consciosness and many behavior based on it.

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