

## The row motion which assumed muscular strength maintenance in the space

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### Purpose

Quantity of muscle decreases because of zero gravity in the space. Therefore the astronaut is obliged to carry out exercise. It is necessary to carry out an effective activity. Therefore I performed a study to strengthen quadriceps femoris muscle with much quantity of muscle most. This study is fundamental researches on the ground. It was intended to clarify a muscle reinforcement effect of the row motion.

### Method

We had member of the University N rowing-Club, six male cooperate and recorded motion of row result for one year. We went to check the healthy degree investigation athlete course in Aichi health plaza one year later at the exercise and measured the muscular strength of the quadriceps femoris muscle. A result, increase of the muscular strength was seen generally. However, the statistical significant difference did not appear.

### Conclusion

We checked the result at the quantity of the strengthen quadriceps femoris muscle. However, we knew the big need that exercised of the load more because statistical significant difference did not appear in one year. Because the astronaut stays in the space station for six months or one year, we think that it is necessary to try an exercise method to take the load more.

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