

## Importance of the lactic acid bacterium intake in space foods

Kaori Shimoyama<sup>1\*</sup>, Ayami Shimoda<sup>1</sup>, Kie Suzumura<sup>1</sup>, Eri Shimizu<sup>1</sup>, Naomi Katayama<sup>1</sup>

<sup>1</sup>Nagoya Women's University, Food Science and Nutrition

### Purpose

We will worry about some physiological change in long-term space stay. Especially, constipation will be a problem for astronauts. Constipation will be cause of disease of stomach or bowels. In this study, subjects eat two different kind of yogurts to check the ratio of constipation.

### Method

The subjects were 11 adult women (average age 20.9±0.3 years old) registered at this study. During two weeks before experiment start, we performed questionnaire survey of the bowel movement situation everyday. (the "color" "shape" "smell" "bowel movement time" "stool frequency" "number of times of the gas"). For two weeks, we took 85 g of M Company yogurt before going to bed and recorded the bowel movement situation everyday equally afterwards. We stopped a yogurt intake for the next two weeks and recorded the everyday bowel movement situation.

Furthermore, for two weeks, we took 100 ml of Y Company yogurt and recorded the bowel movement situation everyday equally. We stopped a yogurt intake for the next two weeks and recorded the bowel movement situation everyday.

### Result

From the 2-week bowel movement record before the experiment start, we divided them into two groups, constipationless groups and constipation group. As a result of having taken M Company yogurt for constipation group for two weeks, one person was improved so that there was a bowel movement approximately every day. And then, we stop yogurt intake for the next two weeks. Afterwards, as a result of having taken Y Company yogurt for two weeks, two constipation subjects were a bowel movement every day, three constipation subjects were improved and answered it that one constipation subject was not improved.

### Consideration

When we do yogurt intake for two weeks even if it was either product, constipation tended to be improved. But when we stopped an yogurt intake in the case of both we have a problem of constipation again. We understood that it was important to continue an yogurt intake in the constipation improvement. We do an experiment period more for a long term, and it will be necessary to perform closer questionnaire survey in future.

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