

Euglena intake increases beneficial gut bacteria and improves sleep quality in adult men – Japan study

By Guan Yu Lim

09-Nov-2021 - Last updated on 09-Nov-2021 at 02:23 GMT



The consumption of euglena (*Euglena gracilis*) daily for four weeks was shown to increase beneficial gut bacteria and improve sleep quality in adult men, according to a clinical trial funded by health drink and supplement firm Euglena Co.

Euglena is a microalgae that contains a range of nutrients from dietary fibre, vitamins, minerals, amino acids to fatty acids. Japan-based Euglena Co manufactures supplements and skin care products containing the microalgae.

In this study, 32 adult men in Japan were recruited and enrolled into two groups, placebo or test.

The test group was tasked to consume 3,000mg of euglena (capsule form) daily for four weeks. The capsule was specially formulated for this study.

Researchers collected stool samples at baseline and after four weeks to analyse intestinal flora, which meant extracting DNA from the faecal samples and sequencing it.

Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI) to evaluate sleep time, insomnia, sleepiness, and use of sleeping aids.

The results revealed euglena intake increased the diversity of gut microbiota including lactic acid bacteria and *Bifidobacterium*.

“These bacteria produce lactic acid, acetic acid, and butyric acid, which can inhibit harmful microorganisms in the intestine,” according to Ayaka Nakashima who is manager at Euglena Co’s research and development department.

This human clinical study finding was in line with a previous study conducted by the firm which found that euglena intake can increase butyrate-producing bacteria in an in-vitro model.

In addition to the greater diversity of gut microbiota, subjects who consumed euglena reported better PSQI scores which indicated a better quality of sleep.

Nakashima told Nutra Ingredients-Asia : “In our opinion, Euglena can act as prebiotics and increase beneficial intestinal bacteria. In order to maintain a good quality of sleep, it is effective to maintain good intestinal flora through eating habits .”

The results were presented at the 43 Annual Meeting of the Japanese Society of Clinical Nutrition and the 46 Annual Meeting of Japanese Society of Sleep Research.

This study was exploring the association between sleep and the gut microbiome, where increasingly more research are around the gut-brain axis, linking gut functions with cognitive health including sleep.

Euglena Co has been conducting research on the association between euglena intake and different aspects of health including sleep, immunity and cognitive health.

Previously, it published a [mouse study](#) which reported that an intake of euglena powder could lower the degree of inflammation in mice with non-alcoholic fatty liver disease.

Last year, the firm also published a study on how euglena could [improve sleep quality](#) and work efficiency in stressed individuals, after a 12week intake.

According to Nakashima, it is embarking on more research to strengthen the appeal and benefits of euglena, and improve the recognition of its core food brands containing euglena.

Euglena’s products are mainly sold through mail order, with the firm reporting growing sales of its supplements, although declined to share actual figures.

Genequest, the consumer genetic testing arm providing DNA tests, acquired by Euglena in 2017, recently published a research in [Nutrients](#) on the genetic association between vegetable intake and obesity, where carrot consumption was found to reduce body mass index.