

for decades. Several pre-clinical studies have demonstrated that honey from bees fed with Chlorella algae extract contains a number of algal active ingredients with beneficial effects on the human body. **Methods:** We conducted a prospective double-blind functional food study with 30 healthy volunteers with ethical approval. Based on strict inclusion and exclusion criteria, 30 grammes of honey has been eaten twice a day for 3 weeks under 150 ml of yoghurt. 15 people were fed honey from bees with special algae extract, while 15 concerned - as a control group - consumed acacia honey. Before and after the study, sleep quality was assessed by the SQS questionnaire, and quality of life by the SF-36, EORTC Q-C30 and EQ-5D tests.

Results: The specific algae extract contained honey improved the people's sleep quality, their EQRTC parameters, their appetite, their digestion, and it also significantly reduced pain ($p = 0.01$), boosted the patients cognitive function, and reduced both constipation and diarrhoea. Significant differences in SF-36 parameters: pain decreased (12.9 ± 1.6 vs 6.6 ± 1.1 ; $p = 0.01$), physical function (21.2 ± 6.3 vs 27.1 ± 3.6 ; $p = 0.01$) and energy (11.2 ± 2.7 vs 13.9 ± 1.4 ; $p = 0.01$) improved. No such changes occurred in control group.

Conclusions: Honey from bees fed with algae extract has a number of beneficial physiological effects on the human body, improving many parameters of quality of life.

Key messages:

- The consumption of honey from bees fed with algae extract improves sleep, reduces pain, and has a positive effect on digestive and gastrointestinal symptoms.
- Within public health, quality of life is an increasingly important issue and improving it with functional foods is an important area of research.

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Beneficial effect of honey from algae extract-fed bees on quality of life

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Background: Our team has been researching and developing special honeys from bees fed with syrups containing natural plant extracts