

# Insects Instead of Hunger: The Role of Insects as Alternative Protein Sources in Health Maintenance

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## ABSTRACT

Considering the scientifically predicted growth of the population of the World, alternative protein sources for people seem to play major role in connection with the growing food requirements. This manuscript focuses on eating insects as a way of using an alternative protein source. In addition, next to the completion of the cultural, traditional and individual dietary habits, using these special protein sources, environmental protection is also available. Eating insects can decrease the incidence of malnutrition, developmental disorders, cancer and Inflammatory Bowel Diseases especially in areas where no other source of protein is available for the population. The purpose of the manuscript is to summarize these beneficial properties thereby assisting in the acceptance of treating insects as some kind of foods for people.

**Key words:** alternative protein source, insects, eating insects, food supplementation, malnutrition

## INTRODUCTION

Compared to dates of 1950 the predicted growth of the population of the World by 2050 may affect the total food supply of the Earth [1] [2]. Therefore, keeping the stability of food supply has become a prominent task for food science professionals while also focusing on the demand of food of high quality that accompanies the constant growth of population.

The introduction of alternative protein sources can decrease the incidence of nutritional deficiencies [3] primarily focusing on the need of increased protein intake keeping environmental protection in mind. Among the alternative protein sources, in addition to the single cell protein [4] insects also mentioned in the literature [5] [6]. Eating them also available and useful because of their high protein-, antioxidant- and vitamin content. Consuming them can also reduce the likelihood of the occurrence of many diseases associated with malnutrition. To complement cultural, traditional or individual eating habits,

these specific nutrient sources may become acceptable [7] that - as mentioned earlier - would have positive effects not only on human body but also on the environment. Aims of the manuscript are summarizing and analysing positive effects caused by eating insects on human body.

### Positive effects of eating insects on human body

*Decreasing the development of malnutrition:* Malnutrition results from the lack of well-qualified and adequate food intake. Eating insects means an alternative solution that can increase the complex protein intake and reduce the incidence of malnutrition.

*Developmental disorders:* In some countries, eating insects may mean the only source of complex protein intake in the diet which also plays a prominent role in the normal development of children of these areas. To maximize the development of the body, it needs not only energy and macro-nutrients but also the vitamins and minerals needed to utilize them. Among others, zinc, iron, and calcium - which are necessary for growth, could be found in large amounts in insects.

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*Decreasing the incidence of cancer:* The antioxidant content of insects getting into human body can help decrease the incidence of cancer. This is the reason why is it worth being open-minded in connection with new foods in more traditional cultures.

*Reducing the incidence of Inflammatory Bowel Disease:* Inflammatory Bowel Disease is a major problem of individuals worldwide. The positive effects could be caused on human body by the protein content of eaten insects also extend to the reduction of inflammatory processes. Digestive disorders associated with bowel inflammation can be mitigated using protein sources that can help the regeneration of the bowel and further protection and absorption.

*Promoting the healing processes of wounds:* During certain healing process of it, the need of protein of human body is highly increased. By eating insects; protein intake can be increased, which in turn promotes building processes. Rapid healing of wounds can also affect the complex treatment and condition of people in care.

## CONCLUSION

In the manuscript I established that eating insects could become an environment-sparing source of protein intake for people in the future. For this goal, we should form a lot on our judgement in connection with these unusual kinds of foods to make them easily able to incorporate into everyday life. I consider it being highly important to highlight the beneficial effects of eating insects. These could help us protecting our health and environment, too. These beneficial properties include the followings: reducing the development of malnutrition, promoting healing of wounds, preventing developmental disorders and protecting people against having tumours and Inflammatory Bowel Diseases.

## REFERENCES

1. Molnár, J., Ásványi, B. (2019). Studying growth characteristics of yeast strains on vegetal fermentation media and with vitamin supplementation. *Acta Alimentaria* 48. 2:143-149.
2. Hungarian Ministry of Agriculture (2016). Magyarország élelmiszergazdasági programja 2016–2050 (Hungary's Food Program 2016–2050). 1–56.
3. Dominguez, Castro, P., ME.Reynolds, C., Kennelly, S., Clyne, B., Bury, G., Hanlon, D., Murrin, C., McCullagh, L., Finnigan, K., Clarke, S., Browne, S., Perrotta, C., R.Gibney, E., A.Corishab, C., (2020). General practitioners' views on malnutrition management and oral nutritional supplementation prescription in the community: A qualitative study. *Clinical Nutrition ESPEN* 36:116-127.
4. Spalvins, K., Zihare, L., Dagnija, B. (2018). Single cell protein production from waste biomass: comparison of various industrial by-products. *Energy Procedia* 147:409-418.
5. Imathiu, S. (2020). Benefits and food safety concerns associated with consumption of edible insects. *NFS Journal* 18:1-11.
6. House, J. (2018). Insects as food in the Netherlands: Production networks and the geographies of edibility. *Geoforum* 94:82-93.
7. Ammann, J., Hartmann, C., Siegrist, M. (2018). Does food disgust sensitivity influence eating behaviour? Experimental validation of the Food Disgust Scale. *Food Quality and Preference* 68:411-414.

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