

## **A Natural Alternative to Hormone Therapy?**

### **The Effects of Krill Oil Supplementation on Women's Health During Menopause**

Menopause is a natural stage in every woman's life, marked by the end of menstruation and a decrease in female sex hormones – estrogen and progesterone. These hormonal changes can cause troublesome symptoms such as hot flashes, joint pain, fatigue, and sleep disturbances, and may increase the risk of cardiovascular disease, osteoporosis, or depression.

Currently, the most effective method of relieving menopausal symptoms is hormone replacement therapy (HRT). However, long-term HRT—especially combined estrogen-progestogen regimens—may increase the risk of breast cancer and cardiovascular events. Therefore, it is crucial to search for safer, natural methods to support women's health during this life stage.

The goal of this project is to investigate whether supplementation with krill oil—a rich source of omega-3 fatty acids, phospholipids, and antioxidants—can positively affect the health of peri- and postmenopausal women.

The study will include 60 women aged 40–60 who will take krill oil or a placebo for 8 weeks, followed by a 16-week break, after which the groups will switch. The trial will be double-blinded, meaning neither the participants nor the researchers will know who is receiving the supplement or the placebo.

We will assess:

- pain intensity and musculoskeletal function,
- blood levels of hormones and inflammation markers,
- lipid profile (cholesterol),
- severity of menopausal symptoms,
- quality of life and physical activity levels.

This interdisciplinary project combines medicine, nutrition science, and psychology. Its results may help develop a safe, natural alternative to hormone therapy and support menopausal women in improving their quality of life and preventing chronic diseases.