



CENTRE OF EXCELLENCE
IN HEALTH PROMOTION
AND REHABILITATION



MASSAGE CREAM WITH THE EXTRACT OF HUMIC SUBSTANCES

Nowadays, neck and shoulder pain is a common health issue, which can lead to reduced work ability. The onset of neck pain can be associated with forced positions of the head and neck, movements of the same type and cold. Also, pain can limit the movement of the neck. The complaints listed above can be alleviated with a massage that uses a special cream, which contains 1% extract of humic substances from Haapsalu curative mud.

2012-2016 the Centre of Excellence in Health Promotion and Rehabilitation¹ developed a massage cream with curative mud humic substances.

Ingredients of the massage cream: purified water (*Aqua*), petrolatum oil (*Paraffinum liquidum*), petrolatum, extract of Haapsalu curative mud with dry matter content of 10%, isopropyl palmitate, PEG 100 stearate, glyceryl monostearate, isopropyl myristate, avocado oil (*Persea Gratissima Oil*), sorbic acid, sodium hydroxide

In 2013-2014 the experts in the field of curative mud treatment in the Centre of Excellence in Health Promotion and Rehabilitation conducted a study (more information on the results of the study can be found on the reverse) to assess the effects of the curative mud massage cream. Based on the study, the experts of the Centre recommend using the massage cream with the extract of humic substances for massage to reduce functional impairment and pain in case of chronic neck and shoulder complaints.

¹ The development of the massage cream with the extract of humic substances is funded by the European Regional Development Fund.

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The study

2013-2014 the Centre of Excellence in Health Promotion and Rehabilitation conducted a study² at Sanatorium Tervis to assess the effects of a massage cream with humic substances in case of neck and shoulder pain, following a course of massage and one month after the completion of treatment. The study looked at 60 volunteers who had previously received the diagnosis of neck or shoulder pain or who received the diagnosis from their rehabilitation doctor at Sanatorium Tervis. The main criteria were tension and sensation of pain in musculature and muscle strain felt when palpating a relaxed muscle. People allergic to components of curative mud or with diabetes were not involved. Also, people with acute neck pain and those who had just started using pain medication or antidepressants were excluded from the study. The volunteers received 10 ambulatory massage procedures with the frequency of three procedures per week. The duration of the conducted procedure of classical massage was 23 minutes. For those studied, the study lasted for two months. Forms were completed at the beginning and at the end of the course of massage and a month after the completion of treatment. The methods of the study were agreed with the Research Ethics Committee of the University of Tartu.

Results

- Functional impairment of the neck. A statistically significant decrease in values occurred during the study. At the end of the study there were no people with medium functional impairment in the mud cream group. One month after the study, people with medium functional impairment had a clinically significant change of 80% in the mud cream group and 67% in the control cream group.
- Pain with movements. Pain indicators decreased. During the month following the treatment, none of the study subjects in the mud cream group showed an increase in the pain indicator, whereas there were two such cases in the control cream group. The mud cream group included 11 and the control cream group 8 people with a higher pain score (>4). A month after the treatment, pain with movements had decreased 47.5% and 40.7% respectively.
- The intensity of pain in the evenings after work. 14 people in the mud cream group had a higher pain score (>4); by the end of the study one person's score remained above four and the average decrease in pain was 44.6%. The control cream group included 13 such people and by the end of the study there remained four people with a higher pain score; the average decrease in pain was 50.6%.
- Nocturnal pain. Initially there were five people with a higher pain score (>4) in both groups, but at the end of the study the pain score remained at or below four and the average decrease in pain was 48.4% in the mud cream group. In the control cream group, two people continued to have a pain score above four a month after treatment and on average the pain decreased 43.8%.
- Pain at rest. Initially there were four people in the mud cream group and eight people in the control cream group with a higher pain score (>4). By the end of the study, all of the participants in the mud cream group had a pain score below four and on average the pain decreased 63.8%. At the same time, in the control cream group, one person's score did not change and the average decrease in pain was 63.1%.
- The mobility of cervical spine. The control cream group showed bigger changes, while in the mud cream group, neck rotation to the right showed continued improvement a month after treatment, with the average change of 6.2%. In the control cream group the improvement effect decreased after a month, but the average change was finally 6.9%.
- Mobility of the shoulder joint. A month after the course of massage, the extension to the right showed a greater statistically significant change in the mud cream group than in the control group, 14.4% and 11.1% respectively.

² The study is funded by the European Regional Development Fund