

## **Abstract**

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**Title:** Lymphedema in patients after the breast cancer treatment from the view of physiotherapy: literature review

**Objective:** The aim of the literature review was to find out which are the most used and in practice the most effective physiotherapeutic approaches which affect secondary lymphedema of the arm related to breast cancer. The purpose was also to gather the current available knowledge of this issue.

**Methods:** The presented literature review is of the analytical-descriptive nature. It was divided into two parts. The first part is called the theoretical background and deals with the anatomy, pathophysiology, and physiotherapy of arm lymphedema after breast cancer. The second part is focused on the data collection according to the given criteria, analysis, and interpretation of the results of the research.

The sources were searched for in the electronic databases of Cochrane trials, Pub Med and PEDro in the period from 2010 to 2021. Of the total number of 7379 studies, 11 randomized controlled trials, meeting the evaluation criteria, were further analyzed. Searches were performed using various keywords and synonyms connected with the research questions: breast cancer lymphedema, postmastectomy lymphedema, breast cancer lymphedema and exercise.

**Results:** Of the searched sources, 11 studies met the established inclusion criteria. To question, which of the physiotherapeutic approaches to affect the lymphedema after breast cancer are the most used in practice, in the research were eleven studies: aqua lymphatic therapy which utilizes water resistance and hydrostatic pressure, active resistive exercise using aids which activates a skeletal muscle pump supporting lymphatic drainage, low-level laser therapy to restore the lymphatic vessels, myofascial techniques to affect trigger points and scar tissue, application of kinesio-taping using spiral method, strength resistance training using fitness machines, shockwave therapy with anti-inflammatory effect and softens fibrotic tissue, low-intensity resistance training in the compression garments, which create back pressure that massages the lymphatic vessels and lowers their permeability, yoga using breathing practices, complex

decongestive therapy done at home according to instructions and finally intermittent pneumatic compression ad.

The most effective physiotherapeutic approach cannot be unambiguously determined. Studies show that currently the most widely used method is the resistance training in this thesis combined with complex decongestive therapy.

**Key words:** Breast cancer lymphedema, physiotherapy, physiotherapeutic approaches, effectiveness, postmastectomy lymphedema