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Physiotherapeutic approaches in post-surgical recovery from breast cancer in women

Physiotherapeutic approaches in post-surgical recovery of breast cancer in women

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SUMMARY

Introduction: Breast cancer and the post-surgery period present changes that go beyond the pathology itself. The breast is a very significant organ for women, and even after surgery, women still fear a recurrence of the disease or its impact. **Objective:** To identify physiotherapeutic approaches in the post-surgical recovery of breast cancer in women. **Methodology:** This work is a descriptive and exploratory qualitative study. A literature review was conducted, consisting first of choosing the topic and selecting publications, followed by the transcription of works that address the topic. Four electronic databases were used: LILACS, SCIELO, Virtual Health Library, and periodicals.

Studies conducted between 2021 and 2025. **Result:** Between 2023 and 2025, approximately 704,000 new cases of this disease are expected to emerge in Brazil, especially in the South and Southeast regions, which represent almost 70% of cases among women. The study also found that physiotherapy offers various resources and techniques that help in the prevention and recovery from complications after mastectomy surgery. **Conclusion:** This review study shows that physiotherapy plays a fundamental role in the functional recovery of the upper limb in women in the postoperative period following mastectomy resulting from breast cancer.

Keywords: Breast Cancer. Mastectomy. Oncology. Post-Operative.

ABSTRACT

Introduction: Breast cancer and post-surgery changes go beyond the pathology itself. The breast is a highly significant organ for women, and even after surgery, women continue to fear the disease's return or feel its impacts. **Objective:** To identify physiotherapeutic approaches in post-surgical recovery from breast cancer in women. **Methodology:** This is a descriptive and exploratory qualitative study. A literature review was conducted, first by choosing the topic and selecting publications, followed by transcribing relevant works. Four electronic databases were used: LILACS, SCIELO, the Virtual Health Library, and journals. Studies published between 2021 and 2025 were included. **Result:** Between 2023 and 2025, approximately 704,000 new cases of this disease are expected to emerge in Brazil, especially in the South and Southeast regions, which accounts for almost 70% of cases among women. This study shows that physiotherapy offers various resources and techniques that help in the prevention and recovery from complications after mastectomy surgery.

Conclusion: This review study shows that physiotherapy plays a fundamental role in the functional recovery of the upper limb in women after mastectomy resulting from breast cancer.

Keywords: Breast Cancer. Mastectomy. Oncology. Postoperative.

1. INTRODUCTION

Breast cancer is a tumor characterized by the uncontrolled growth of cells.

Breast lesions, which can be benign or malignant, with malignancy being the most severe diagnosis.

It is called breast cancer, for which there are several risk factors that women develop.

Pathologies such as advancing age, exposure to radiation from chest treatments in childhood

or young adult, obesity, early menarche, being a woman, entering menopause at

advanced age, never having been pregnant or having experienced a first pregnancy after the age of 30, use of

Postmenopausal hormone therapy medications, alcohol consumption, heredity,



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lifestyle habits (Costa et al., 2021).

Even with the creation of public policies by the Ministry of Health (MS) for control of breast cancer throughout the country, such as the National Policy for Comprehensive Health Care The National Policy for Comprehensive Women's Health (PNAISM) in 2004, the National Policy for Oncological Care (PNAO) in 2005, and the Ordinance No. 189/2014 establishes a minimum number of tests that are important for the Your breast cancer diagnosis still requires reinforcement with healthcare teams to to report each case, to be trained to care for patients in a way that identifies the cause. ágio, acting in prevention, treatment and rehabilitation (Montilla et al., 2023).

The North and Northeast regions of Brazil have the highest rates of underreporting and significant... Difficulty accessing healthcare services negatively impacts the quality of treatment. of patients with cancer in these regions. The southern and southeastern regions, however, have the highest rates. of deaths and new cases (Dantas et al., 2021).

After diagnosis, treatment begins, which in the case of breast cancer is "of a form multidisciplinary and involving surgery, chemotherapy, radiotherapy and treatments Regarding pharmacological treatments, the indication for treatment depends on the stage at which the tumor was diagnosed and is Each patient is evaluated individually, and surgery is chosen as an aggressive method. It is invasive and can bring the benefit of the expected treatment outcome, but throughout the process... This can result in numerous postoperative complications, such as infections, Difficulty in wound healing, functional limitations, body distortion, social and emotional impacts. Within this context, a qualified physiotherapist is essential in the postoperative period of mastectomy (Franco et al., 2021).

Physical therapy can help with post-operative breast rehabilitation in women. through the provision of information, which is fundamental in this process, but also through The improved quality of life provided by physical exercise can be achieved through therapies such as... "kinesiotherapy, electrotherapy, manual therapies, hydrotherapy through aquatic physiotherapy and recovery of these women's self-image" (Crefito 15, 2022; Mendes et al, 2025).

Breast cancer and the post-surgery period present changes that go beyond the pathology itself. Because the breast is a very important organ for women, and even after surgery... The woman never ceases to fear a return of the disease or to feel the impacts it causes. Physical therapy plays a role in prevention, rehabilitation, and the process of redefining body image. Professionals still need to adapt and understand the importance of teamwork, given the The participation of the entire multidisciplinary team in the postoperative period is crucial; therefore, physiotherapy should provide... providing individualized care to each patient, according to their specific needs, promoting Quality of life, ranging from autonomy in performing simple tasks to the self-confidence to return. a society without fears or constraints (Amorim et al., 2024; Nascimento, Prado, 2023).



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This study is justified by highlighting a prominent issue related to cancer.

Breast cancer in women, however, is a topic where the role of physiotherapy is not yet well known, despite being very important. important in the postoperative period of mastectomy, with or without axillary lymphadenectomy.

Breast cancer and mastectomy can be studied in various fields of knowledge. as in nursing, medicine, nutrition, and physiotherapy, being a complex topic that can be analyzed from various aspects of these women's lives: socioeconomic, psychological, sexual life, self-esteem, physical appearance, etc. Because it is a contemporary and complex field of study, the topic needs to receive greater attention and proper exploration are needed.

This work will contribute to the academic health community, especially professionals. physiotherapists, but also patients who need help after a mastectomy. Assistance to prevent complications after surgery and guidance on the rehabilitation process. This study is relevant because it is a reliable source of knowledge about this new stage. These are challenges faced by patients, and they should not be left without assistance or lose their quality of life during this period. the process.

In this context, the aim of this work is to identify the physiotherapeutic approaches in post-surgical recovery from breast cancer in women, providing prevention of Complications and rehabilitation of women who have undergone mastectomy.

2. THEORETICAL FRAMEWORK

2.1 Breast cancer and physiotherapy approaches in post-surgical recovery

Breast cancer is currently considered the second leading cause of death in Brazil, with The incidence is higher in women, directly impacting their quality of life, with 85% of them affected. They face difficulties during the stages of the pathology and after mastectomy, such as reduced Partial loss of function in basic domestic and daily activities such as dressing, performing of work tasks, in addition to changes in the psychological aspect with emotional impacts (Rett et al., 2022).

According to Silva et al. (2024), "For each year of the three-year period 2023-2025, an estimated 73,610 cases were recorded." new cases, which represents an adjusted incidence rate of 41.89 cases per 100,000 women," this The high rate of new cases and deaths from breast cancer in Brazil affects and has a significant impact. proportion, causing high morbidity and mortality, lower quality of life, and functional loss that generate High costs for health services, public coffers, and the community in general.

Physical therapy is a health science that studies, prevents, and treats disorders. functional kinetic changes in the human body, resulting from genetic modifications, trauma, or disease. acquired. It employs numerous therapeutic techniques and resources to promote recovery, prevention and improvement of the functionality of the human body, mobility and quality of life of



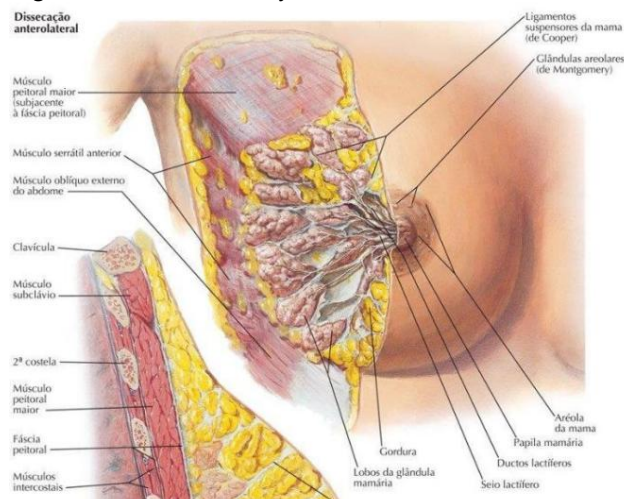
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patients in the postoperative period of mastectomy (Franco et al., 2021).

According to the study by Azevedo et al., (2025), breast cancer is the most common neoplasm. prevalence among women, being the most common type of cancer after skin cancer, and that It has a high mortality rate in women. According to the National Cancer Institute José According to the National Cancer Institute (INCA), for the three-year period 2023-2025, 73,610 new cases of cancer were estimated. Breast cancer in Brazil. Although there is currently access to information regarding breast cancer, This will lead to earlier diagnoses and prompt initiation of treatment. In the initial phase, conservative and radical procedures still predominate.

According to Schröder and Zanin (2023), the breasts are a group of glands derived from the epidermis, composed of glandular, connective, and adipose tissue that make up about 50 to 70% of its Total volume, they are present in both sexes, but more evident in women. They are located in the anterior and upper part of the thorax, over the pectoralis major muscle, serratus anterior and the upper part of the oblique abdominal muscle, between the second and sixth ribs, where it extends medially to the sternum and laterally to the anterior border of the latissimus dorsi muscle.

Figure 1: Breast anatomy



Source: Netter (2018).

The results show that, even though breast-conserving surgery (BCS) is a As a viable option, many women, especially younger ones, prefer to undergo a mastectomy because They believe it reduces the chance of the cancer returning or of dying from the disease. Upon analysis Studies show that it is important to take into account factors such as age, ethnicity, and social status. when deciding which treatment to follow. More research is still needed to better understand. the effectiveness of BCS and how different clinical factors can influence the results, as well as There are numerous other types of treatment that depend on the stage of the pathology. It depends on medical evaluation, among other factors (Alves et al., 2024).

Many women end up receiving a breast cancer diagnosis at an early stage. advanced patients, due to the delays in scheduling appointments, getting tests done, undergoing biopsies, and starting treatment.



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treatment. Therefore, about 70% of them need to undergo breast removal surgery. According to Law 11.664/2008, the Unified Health System (SUS) should guarantee that all

Women over 40 should have regular mammograms as a way to prevent and

Detecting cancer in its early stages is crucial, as incidence and mortality rates increase significantly in this age group.

age. However, in practice, this exam is usually performed by the SUS (Brazilian Public Health System) mainly between the

ages of 50 and 69, following guidelines from the Ministry of Health. It is important to remember that below the age of 40, the

The number of deaths from breast cancer is lower, less than 10 per 100,000 women. However, starting from...

At age 60, this risk is ten times greater, reinforcing the importance of early diagnosis to increase...

the chances of successful treatment (Brandão et al., 2021).

3. MATERIALS AND METHODS

The methodology used to prepare this work is a descriptive study and

This was an exploratory qualitative study. A literature review was conducted, initially consisting of the selection...

The topic and selection of publications are followed by the transcription of works that address the topic.

Four electronic databases were used: LILACS, SCIELO, Virtual Library in

Health and periodicals. For the study's research, an exploratory reading of 46 publications was conducted.

and selected 23 for its elaboration, comprising the selected material that met the criteria.

Inclusion and exclusion criteria will be used. The following keywords will be used: Breast Cancer. Mastectomy.

Oncology. Post-operative.

The inclusion criteria were defined as publications that highlighted the theme,

exclusively featuring women, with works published in full in English and/or Portuguese, in

period from 2021 to 2025. Publications that were not exclusively related were excluded.

with keywords and in other languages.

4. RESULTS AND DISCUSSION

After a literature review, through critical and in-depth reading, the following selection resulted:

of 10 articles that explained physiotherapeutic approaches in post-surgical recovery

of breast cancer, with the aim of highlighting the importance through different works/authors.

of this professional during this process.

The use of a physiotherapy protocol in the rehabilitation of upper limbs in the post-operative period.

According to Majewski et al. (2022), surgical intervention in mastectomized women may reduce the impact.

overcoming the limitations resulting from surgery, thus promoting independence in activities of daily living.

daily, promoting self-esteem and contributing to their social participation. The physiotherapist has

with the aim of guiding the patient about the surgical procedure that will be performed, informing them

Regarding the possible limitations the patient will have post-operatively, these limitations involve:



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Upper limb movements and pain. The physiotherapist should assess the upper limb for:

to range of motion, muscle strength, pain, tenderness, postural changes, edema or

lymphedema and whether there is circulatory impairment.

In turn, Braga et al., (2025), describe that when thinking about physiotherapeutic treatment of
 For greater effectiveness in gaining muscle strength and range of motion, we find kinesiotherapy.
 In response, in addition to establishing functional recovery of the affected upper limb, the technique
 Free-active exercises, stretches that can be active or assisted, are considered
 methods for preventing complications caused by post-surgery. The physiotherapist plays a role in this.
 several areas in the postoperative period of mastectomy surgery due to the physical consequences that the
 The procedure causes problems in the body, such as muscle and scar injuries, and changes in muscle strength.
 pains.

As described by Gomes et al., (2023), physiotherapy protocol proposed by
 has proven effective in improving upper limb functionality in post-operative patients.
 Immediate operative breast cancer surgery. Flexion, abduction, and external rotation are essential movements.
 for carrying out activities of daily living, which are often compromised after surgery.
 Mastectomy. The range of motion of these movements has increased significantly since the
 Treatment begins with additional benefits between the 10th and 20th physiotherapy sessions.

Below are two tables for statistical data analysis regarding
 The emergence of new cases and deaths in women related to breast cancer.

Table 1: Cancer statistics for women in Brazil in 2023.

Primary Location	New Cases	%
Female breast	73,610	30.1
Colon and Rectum	23,660	9.7
Cervix	17,010	7.0
Trachea, Bronchus and Lung	14,540	6.0
Thyroid gland	14,160	5.4
Stomach	8,140	3.3
Uterus body	7,840	3.2
Ovary	7,310	3.0
Pancreas	5,690	2.3
Non-Hodgkin lymphoma	5,620	2.3
All neoplasms, except non-melanoma skin cancer.	244,160	100.0
All Neoplasms Source:	362,730	

INCA, 2023.



Table 2: Statistics on cancer deaths among women in Brazil in 2021.

Primary Location	Deaths:	%
Mama	18,139	16.4
Trachea, Bronchi and Lungs	12,977	11.7
Colon and Rectum	10,598	9.6
Cervix	6.606	6.0
Pancreas	6.022	5.4

Source: INCA, 2021.

In both tables, it is noticeable that breast cancer leads the ranking, being the most common cancer. emergence of new cases and deaths according to the latest data provided by the Institute National Cancer Institute – INCA.

In Brandão's study (2021), it is highlighted that the highest incidence of the disease usually occurs in Women at the end of their fertile period, which can be explained by the epidemiology of the condition. Menopause is the main risk factor, being more important than factors such as lifestyle habits. or genetics. Regarding family income, it is common for screening and seeking medical care to occur. These events occur earlier in women from higher socioeconomic classes because they have more Ease of access to the private healthcare system and health insurance plans are also common, and they tend to be better. informed about the disease and its development. In addition, women with lower incomes, less Women with lower levels of education and who are homemakers tend to have more difficulties related to mental health. presenting problems such as anxiety and eating disorders. These issues increase the risk. of a worsening of mental health after mastectomy surgery.

In the article by Ferreira and Mendes (2025), which deals with a literature review, the authors They emphasize that mastectomy is a procedure that can be quite aggressive and traumatic for... a woman's life and health. This is because it affects not only her physical appearance, but also her personal life. resulting in functional losses that can limit work activities, as well as causing changes psychological, emotional, and social issues, often associated with depression and anxiety. Complications lead to significant physical, social, and emotional changes, greatly impacting... Quality of Life (QoL) of these women. Physiotherapy in this context does not directly address... It's not about the disease, but rather about functionality after treatment begins. It helps minimize the effects of procedures such as chemotherapy, surgery or radiotherapy, promoting rehabilitation through Treatments such as kinesiotherapy, electrotherapy, manual therapies, hydrotherapy with physiotherapy. aquatic therapy and the recovery of these women's self-image.

According to Brazil (2025), Law No. 9,797 established that plastic surgery Breast reconstruction surgery should be offered by the Brazilian public health system (SUS) in cases of mutilation following cancer treatment. Some changes occurred in Article 2 with the creation of Law No. 12,802, which added two



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paragraphs. The first ensures that the reconstruction is done during the same surgical procedure, provided that if technical conditions permit. The second provision stipulates that, if immediate reconstruction is not possible, the patient should be referred for follow-up, and surgery will be performed as soon as she is ready, under appropriate clinical conditions.

As pointed out by Santos et al. (2024), breast cancer is the leading cause of death. Among women, between 2023 and 2025, approximately 704,000 new cases of this disease are expected to emerge in Brazil, especially in the South and Southeast regions, which account for almost 70% of cases among the Women. Breast cancer is the most common, with an estimated 74,000 new diagnoses per year year until 2025. For the female population of the country, the risk of developing breast cancer over the course of this period is... The mortality rate is approximately 8%, meaning one in ten women. This number is used as a... General reference for risk in the female population. In 2021, approximately 66,280 cases were recorded. new cases, with an estimated rate of 61.61 cases per 100,000 women.

In this study, the authors Serra et al. (2025) identified that physiotherapy offers several resources and techniques that help in the prevention and recovery from post-surgical complications Mastectomy, in addition to treating functional limitations that may arise throughout the process. Therefore, The methods used in physiotherapy are considered one of the most effective treatments for conditions caused by mastectomy. They are also essential for maintaining mobility in the area shoulder and help in the recovery of upper limb movements. Treatment options It involves aquatic physiotherapy, lymphatic drainage, kinesiotherapy exercises, and bandaging. compression and other similar techniques.

In this context, Lacombe et al. (2022) studied 96 women who underwent They concluded that physiotherapists can develop a treatment program for mastectomies. which includes manual lymphatic drainage and progressive exercises for the arms. These treatments help They can reduce lymphedema, relieve pain, and improve mobility, compared to exercise. traditional methods for the arms. In this way, patients have a better quality of life.

5. CONCLUSION

This review study shows that physiotherapy plays a key role in Functional recovery of the upper limb in women after mastectomy, resulting of breast cancer. In which these women can have more independence, self-confidence, reducing complications such as pain and infections, improving their quality of life.

Breasts represent a symbol of femininity, sensuality, beauty, and motherhood. But the meaning can be very different for each woman. Therefore, it is essential that the SUS (Brazilian Public Health System) Just like healthcare professionals, be prepared to welcome patients and clarify all doubts. Their doubts. In this way, any negligence in care is avoided and treatment is guaranteed.



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respectful and dignified.

In this way, physiotherapy can also help through strategies and techniques such as Pilates, Hydrotherapy and massage therapy can help reduce functional disabilities that may arise post-operatively. In addition to highlighting the importance of constant new studies so that this topic can...

It's important to always stay informed, as breast cancer is the most common cancer in women and has a high incidence rate in new cases and deaths. This requires professionals with both scientific and practical knowledge, so that so they can provide quality and safe care.

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