Oncology Massage after Breast Reconstruction

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Why do people have reconstructive surgery after breast cancer?

What has changed over the last ten years of breast cancer reconstruction?

Let's look at the research together!

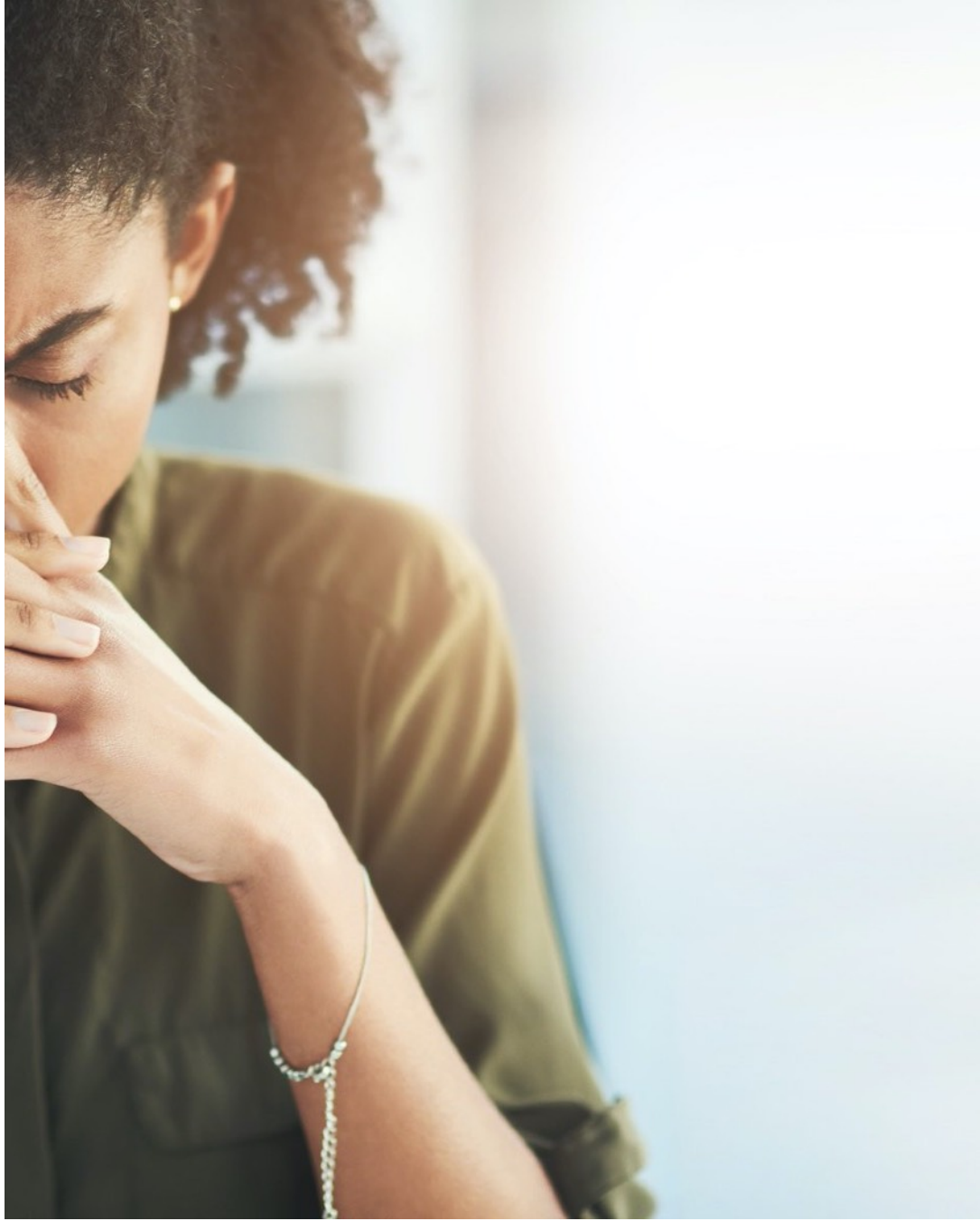
Massage after breast reconstruction surgery involving breast implants

Medications the client may be taking to reduce incidence of capsular contracture

Information about

breast implant illness

Why do people get massage after cancer surgery?



Practice Patterns on the Incorporation of Integrative Medicine Into the Oncologic Care of Patients With Cancer

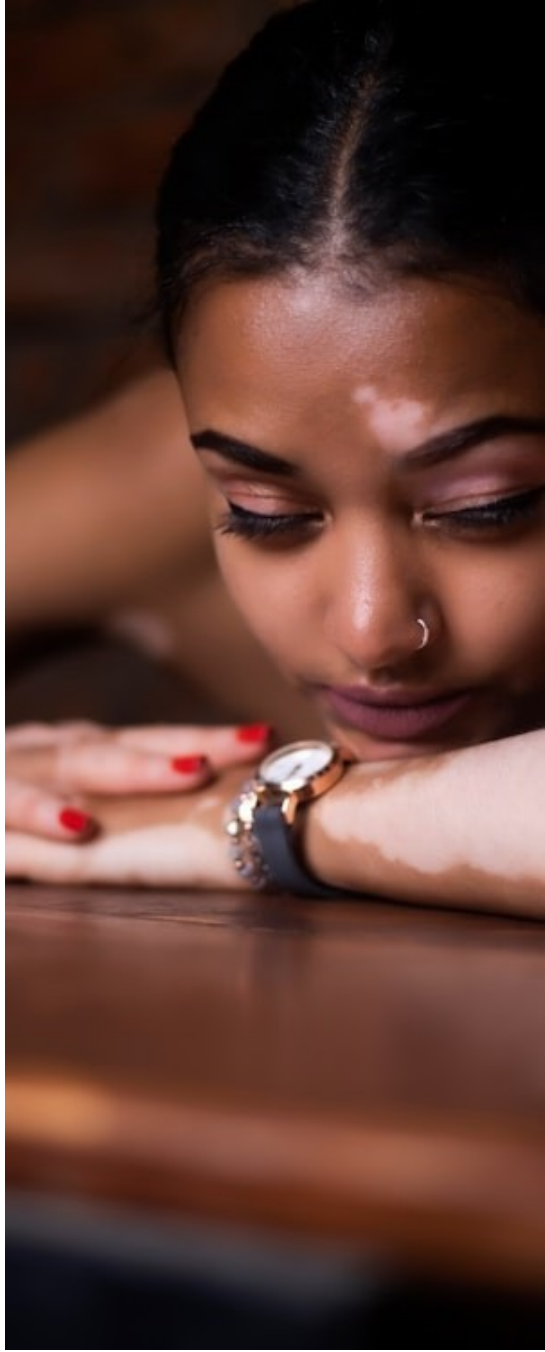
Researchers at MD Anderson Cancer Center looked at charts of 473 patients referred to integrative oncology clinic.

Initial Integrative Oncology referrals for "stress, relaxation, and pain or ESAS scores of at least 4 for pain and anxiety were significantly associated with recommendation of oncology massage"

(Narayanan et al., 2023).

ESAS is the Edmonton Symptom Assessment Scale

ESAS scale is designed to help assess pain, tiredness, nausea, depression, anxiety, drowsiness, appetite, well- being, and shortness of breath.



Why do people have reconstructive surgery after breast cancer?

“Many patients seek reconstruction to reestablish breast shape and volume in an effort to limit the adverse biopsychosocial impact of mastectomy.

Breast reconstruction can aid in restoring a patient’s body image and sense of femininity as well as improving her overall quality of life”
(Cooper et al., 2021).

Disparities and breast cancer reconstruction

Post-Mastectomy Breast Reconstruction Disparities: A Systematic Review of Sociodemographic and Economic Barriers

This journal article is authored by researchers from City of Hope, one of the largest and most advanced cancer research and treatment organizations in the U.S.

The effect of federal mandates has been profound. Researchers found that "from 1998 to 2015, almost all rates of autologous, immediate, and delayed breast reconstruction doubled"

(Vangsness et al., 2024).

Despite federal mandates like the Women's Health and Cancer Rights Act of 1998, access and use of care is unequal in America.

Researchers have found disparities in breast reconstruction when looking at patients who were:

- minorities
- public-insured or uninsured
- rural
- low income
- access to community hospital
- non-English speaking

(Vangsness et al., 2024).

Researchers found that "minorities continue to receive less reconstruction overall compared to White/ Caucasians"

(Vangsness et al., 2024).

What has changed over the last ten years of breast cancer reconstruction?

A Decade of Nipple-Sparing Mastectomy: Lessons Learned in 3035 Immediate Implant-Based Breast Reconstructions

Division of Plastic Surgery and Surgical Oncology,

Massachusetts General Hospital,

Harvard Medical School

(Lin et al., 2024)

Evolution:

- From skin-reducing to skin-sparing and nipple-sparing procedures with improved skin flap vascularity
- From subcutaneous mastectomies to modern nipple-sparing procedures remove the duct bundle from the nipple, thus decreasing risks of breast cancer recurrence
- From total muscle coverage to partial muscle coverage

Evolution:

- From bilateral mastectomy procedures to unilateral
- From paper-thin skin flaps to thicker and better-perfused mastectomy skin flaps with or without nipple preservation
- The rise of using acellular dermal matrices (ADMs) to control the breast pocket

What are some methods for reconstruction after treatment for breast cancer?

Flap reconstruction

Implant reconstruction

- Flap reconstruction uses a flap of tissue from elsewhere in the client's body to reconstruct the breast shape and "also may include an implant (hybrid reconstruction).
- Implant reconstruction uses an implant — a silicon shell that's filled with silicone gel or saline (salt water) — to recreate the breast" (DePolo, 2023).

Flap

Implant

Hybrid

Many clients I see for breast reconstruction after breast cancer have reconstruction involving liposuction and fat transfer to the breast.

"Fat can be harvested from a number of sites, including the:

- **abdomen**
- **medial,** lateral, or anterior **thighs**
- trochanteric region
- **flank**
- lower back
- knees."

The fat is placed "between the overlying breast skin and the pectoralis major muscle" in a "postmastectomy reconstructed breast where host subcutaneous tissue has been voided" (Gabriel et al., 2015).

“Implant- based reconstruction can be done in:

- one-stage (direct-to-implant)
- two-stage (tissue expander followed by a permanent implant)

The one-stage option has been improved by the diffusion of synthetic meshes and acellular dermal matrices (ADMs), which can be used to enlarge the sub-muscular pocket or to cover the implant above the muscle. The implant could be placed under or over the pectoralis major muscle” (Citgez et al., 2020).

“Implant-based reconstruction is the most common method of immediate breast reconstruction in the United States, with acellular dermal matrices (ADMs) playing a significant role in implant support and coverage."

"In 39,800 immediate breast reconstructions, ADMs were used in 55.5% of cases"

(Graziano et al., 2024).

ADM

In the last decade, prepectoral breast reconstruction has gained more and more popularity.

Kim et al. conducted a systematic review and meta-analysis of prepectoral (PBR) versus subpectoral (SBR) breast reconstruction

Researchers found that "PBR considerably improved:

- postoperative pain
- BREAST-Q score
- upper arm function

compared with SBR" (Y.H. Kim et al., 2024).

“Among postmastectomy radiation therapy patients, the incidence rates of capsular contracture were significantly lower in the PBR group than in the SBR group”

(Y.H. Kim et al., 2024)

“The presence of an ADM is essential, given its protective effect against capsular contracture onset”

(Cazzato et al., 2023).

Let's learn more about capsular contracture (CC).

Capsular Contracture is "the formation of scar tissue—known as a fibrous capsule—around the breast implant during a heightened inflammatory response following surgery and is the second most common reason for follow- on operations"

(Guimier et al., 2022).

It's important to note that "while inflammatory responses are common with all implanted devices, the term 'capsular contracture' is reserved to describe contracture phenomena associated with breast implants" (Guimier et al., 2022).

How common is capsular contracture?

A study of over 12,000 breast implants found that:

“the most common reason for breast implant revision in both groups was capsular contracture

(4775 cosmetic revisions [37.1%])”

(Lieffering et al., 2022).

Some clients opt to have liposuction and graft the harvested fat to the breast as an alternative treatment for capsular contracture (CC).

Susini et al. state that “the surgeon can place a fat graft in the initial procedure and use lipofilling as an alternative CC treatment.

Data showed that lipofilling was effective in:

- ameliorating pain from capsular formation, as it reduced the foreign body sensation
- the feeling of tension
- the feeling of cold breast.

Haran et al. showed that fat grafting elevated the CC resolution rate of secondary procedures up to 86%”

(Susini et al., 2023).

Liposuction and fat grafting to the breast after breast implant surgery may help by:

- Reducing pain from capsular formation
- Reducing feeling of tension
- Reducing feeling of cold breast
- Disguising implant edges

Capsular contracture may be an inaccurate term when the client has breast deformity after radiation.

The breast changes when the patient is under anesthesia.

"When subpectoral patients present with breast contracture, chemoparalysis of the muscle alone can resolve breast asymmetry, corroborating that muscle is a key contributor to breast contracture" (Sobti et al., 2020).

They propose that "in the breast reconstruction patient population after radiation, the clinical diagnosis of *capsular* contracture is an inaccurate term to describe the breast contracture, as muscle fibrosis (not capsule) is the dominant contributing pathogenic factor" (Sobti et al., 2020).

Medications that may affect capsular contracture

- Leukotriene antagonists Accolate, Montelukast Singulair and Zafirlukast
- Diclofenac
- Pirfenidone
- Salinomycin
- Simvastatin
- Tamoxifen
- Trental and Vitamin E
- Triamcinolone

Massaging clients with a breast cancer history after implant based reconstruction

As oncology massage therapists, don't feel guilty if you're trying everything you can to reduce:

- Fatigue
- Joint Pain
- Headache
- Muscle Pain
- Inflammation
- Sleep Issues

These and other symptoms are listed by the FDA's page on

'Medical Device Reports for Systemic Symptoms in Women with Breast Implants'

https://www.fda.gov/medical- devices/breast-implants/medical- device-reports-systemic- symptoms-women-breast-implants

Thank you!

For More information on this topic:

- Breast Massage After Implant and Explant Plastic Surgery class
- Online, 8.5 CE from NCBTMB Approved Provider
- Free paperback copy of study guide if you purchase CE class and email me your postal address solacesandiego@gmail.com

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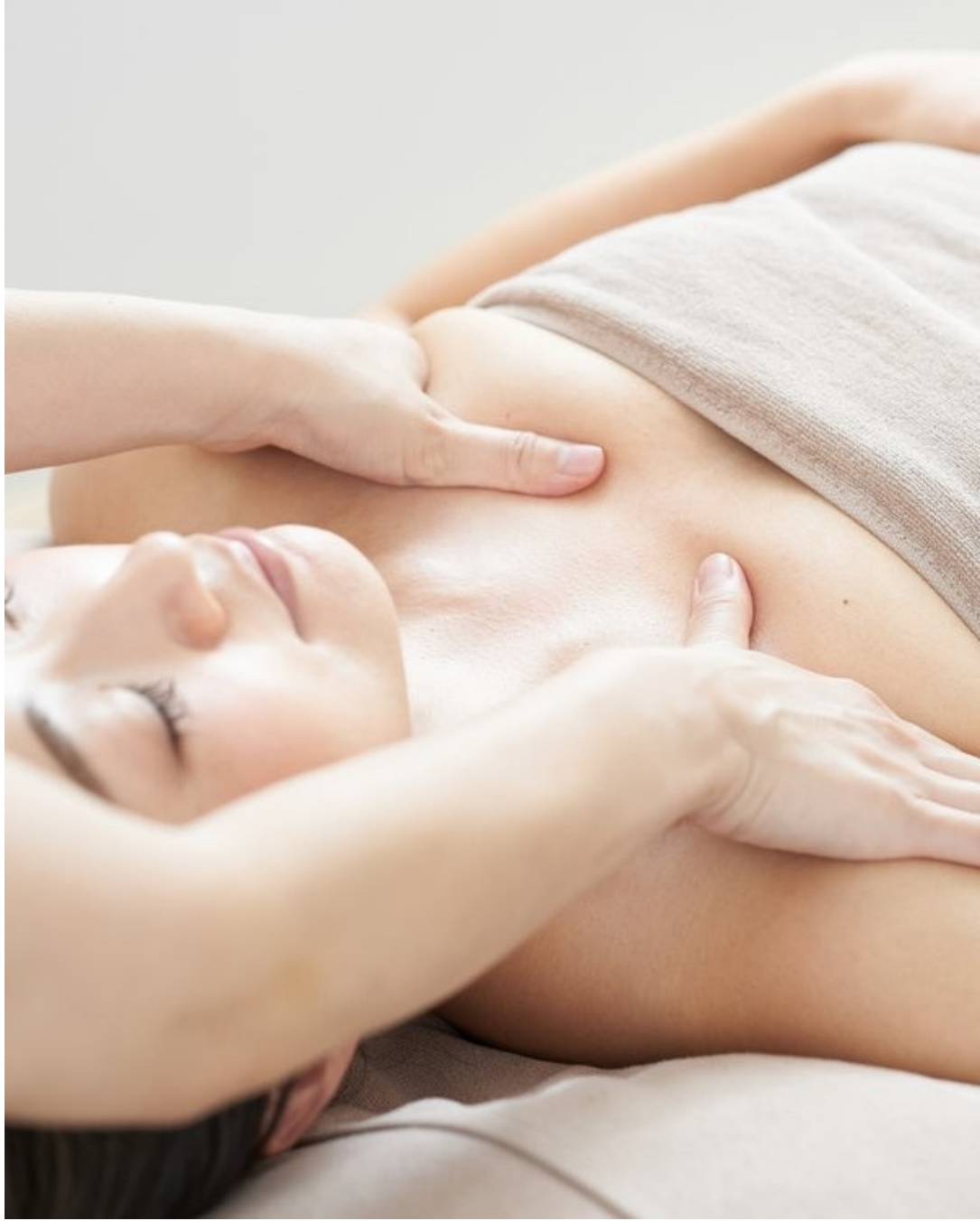

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