

Pilates Helps Breast Cancer Survivors Recover

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There are over 2 million breast cancer survivors in the United States who have had to go through debilitating surgery and treatment. Pilates is an excellent modality to help survivors regain mobility, strength, and endurance. However, it is important to know the issues these women face if you are **working as a Pilates instructor or use Pilates as part of an exercise program. Included below is a brief description of some of the implications of breast cancer surgery and treatment.**

Most women receive surgery to remove the cancerous tissue. The surgeries involve removal of breast tissue along with lymph nodes producing scars, limited range of motion, musculoskeletal pain, lymphedema and loss of function. In addition, many women must undergo systemic treatments which can include chemotherapy, hormonal treatments, and biological treatment. The biggest side effect that all of these treatments have in common is fatigue. However, chemotherapy can result in peripheral neuropathy, "chemo-brain", sarcopenia, infection risk, weight gain, anemia, and premature menopause leading to osteoporosis. In addition, hormonal treatment such as tamoxifen can cause weight gain, hot flashes, and increased risk of uterine cancer. Other hormonal treatments such as the Aromatase Inhibitors can cause joint pain and osteoporosis. Biological treatments such as Herceptin can cause heart and lung problems. Finally, radiation can contribute to fatigue, lymphedema, and brachial plexopathy. These side effects can last from 12-24 months or even years. Finally, there are psychological issues such as changes in body image and fear of death that can complicate the recovery process. I urge you to learn more about breast cancer treatments to really understand its effects upon mind and body.

Why Pilates?

Pilates can help to restore mind and body integration because it is a low impact exercise regimen that strengthens the scapular, abdominal/back and pelvic core musculature while emphasizing deep breathing. If the core is strong, there is an improved ability to use more distal musculature. Other benefits include the following:

- 1) Improves lymphatic drainage by its emphasis upon deep breathing along with abdominal exercises which help pump excess lymphatic fluid back towards the heart
- 2) It strengthens middle back musculature such as the rhomboids and middle trapezius through exercises such as body extension, swan, and diamond. This promotes better posture often impaired after breast surgery.

- 3) If fatigue, anemia, or infection risk is a factor, Pilates can be done in individual sessions. In addition, it can accommodate special needs and considerations as it can be performed standing, seated, prone, side-lying, or supine.. For example, the supine position is excellent as it provides proprioceptive input to the scapula stabilizers. Proprioception is often decreased after injury or surgery.
- 4) Pilates can improve scapula-humeral rhythm since so much emphasis is placed upon use of the scapula stabilizers including the middle trapezius, rhomboids, and latissimus dorsi. Our upper trapezius muscles are often overworked especially post surgery when pain is a factor.
- 5) Since osteoporosis is a concern, many Pilates exercises can be modified, adapted, or eliminated from the traditional Pilates repertoire. For example, keeping the head down during the hundred instead of lifting it up or not performing the roll-up are some recommendations.
- 6) The emphasis in Pilates is minimal repetitions of an exercise done with correct form. This is perfect for someone at lymphedema risk or whose fatigue is limiting endurance. Lymphedema is the build-up of protein rich fluid in the chest, arm, or armpit after lymph node removal and/or radiation. If someone is at risk of lymphedema, it is advised that they wear a compression garment when using resistive equipment with an arm at risk.

Helpful Hints

- 1) Be sure to work with a trained rehabilitation specialist who is familiar with the issues that can arise including peripheral neuropathy, lymphedema, axillary web syndrome, and post mastectomy pain syndrome
- 2) If client has osteoporosis/ osteopenia in the spine do not perform any exercises that involve spinal flexion, lateral flexion or spinal rotation. This includes the mermaid, saw, and criss-cross. If there is osteoporosis/ osteopenia in the hip, do not perform exercises such as leg circles or side lying series if the exercise involves hip external rotation and flexion
- 3) Prone position may be difficult after surgery. Use of towels, wedges , or therapy balls can assist. If not possible, the exercise can be performed seated or standing. Pilates can always be modified to accommodate different bodies and needs.
- 4) Progress your clients slowly and teach them to listen to their bodies.
- 5) If at lymphedema risk, do not increase the repetitions the same time as you increase the weight. In addition, start with light resistance. Wait and see how the individual responds to the resistance before changing band strength.
- 6) Side-lying may also be difficult. You may need to place a support under the head and arm and lower the arm for comfort.
- 7) Be sure to obtain a complete medical history with dates of surgery, radiation, chemotherapy and breast reconstruction. There are many

different protocols especially for breast reconstruction. It is advisable to work within the doctors' guidelines especially when beginning a strengthening program. It is highly advised to obtain medical clearance especially if women are undergoing treatment or have multiple health problems.

I have divided the recovery process into 3 phases post-surgery. The exercises are performed on the mat. The goal here is for clients to learn the correct Pilates principles while restoring range of motion and strength safely. The times provided are only approximations, as every client is unique and doctors' recommendations can vary.

Phase 1 exercises (protective phase with drain in place)

Day 1- Day 10 Deep breathing, scapular protraction/ retraction, scapular elevation/ depression, and bridging can be safely performed. Clients will be recovering and will most likely be referred for rehabilitation if needed

Phase 2 exercises (drains removed)

Day 10- Day 24: Arm scissors, cane raises, side lying shoulder flexion/ extension, side- lying series, bridging, along with phase 1 exercises. You may need some of the modifications indicated in the helpful hints section.

Phase 3 exercise

Strengthening begins Day 24 and beyond: Use of toning balls or therabands. Phase 2 exercises with resistance along with traditional Pilates exercises such as the swan, mermaid with toning balls, swimming, hundred, and criss-cross can be performed. However, this must be considered within limitations of pain, range of motion, and endurance.

To conclude, Pilates is an excellent vehicle to restore wellness. Many of my clients have found that it takes time to master Pilates, but the benefits are extremely worthwhile. They report feeling stronger and more relaxed after participating in the exercises. I recommend that you undergo further study before working with this population. This will ensure that your clients receive maximum benefit from Pilates in a safe and effective manner.

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