

Breast Cancer and Exercise

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SUMMARY

RESISTANCE TRAINING (RT) CAN PLAY A MAJOR ROLE IN THE RECOVERY OF BREAST CANCER PATIENTS. THIS COLUMN WILL SPECIFICALLY ADDRESS RT PROGRAMMING FOR THE BREAST CANCER CLIENT. THE SPECIAL POPULATIONS COLUMN IN THIS ISSUE DISCUSSES BREAST CANCER TREATMENTS AND THE BENEFITS RT CAN HAVE FOR BREAST CANCER PATIENTS.

When starting to set resistance training (RT) goals for your client, remember that the goals of training may differ depending on whether your client is in remission, whether your client is undergoing treatment, and what type of treatment they are receiving (1). The goals may also vary day to day especially for a client who may be undergoing radiation or chemotherapy. That is

Table 1

Resistance training recommendations for individuals with breast cancer

Goals: To increase the strength for everyday activities; specifically increase the strength of the rotator cuff muscles, often weakened by all types of surgery for breast cancer (2). For the Lat flap client, it is especially important to strengthen the surrounding muscles of the latissimus dorsi, like the teres major, serratus anterior, and rotator cuff, to help compensate for the reconstruction. For the TRAM flap patient, it is especially important to strengthen the transverse abdominus and glutes to help keep the core strong and stabilize the spine.

Mode: Free weights, exercise ball, cable column, exercise resistant bands, weight machines.

Intensity: Initially, use very light weight or use just body weight. Ideally, you should choose a resistance at which the client can perform 8–12 repetitions. It is important that the client can hold the proper form in the exercises first and can feel comfortable doing so before any weight is added. If lymphedema is a concern, be sure to have your client check with the doctor first and to see if they should be wearing a compression sleeve (2). Adjust intensity according to how your client feels each time.

Frequency: Start with one set of each RT exercise 1–2 d/wk. Progress to 3 d/wk. Rest 48 h between sessions (2). No more than 10 exercises per session.

Duration: 30–60 minutes or as tolerated.

Progression: When your client is able to perform 12 reps comfortably, you may add 1–2 more reps per set. Once this is accomplished, add 5–10% to the resistance or you can add a second set. In either case, drop back to 8–10 reps/set and then build back up to 12 reps with the added resistance or set. Finally, a third set can be added to further increases in muscular strength once the client can successfully do 2 sets of 12 reps comfortably.

Special Considerations: Before RT is initiated, it is important to work on the following:

Regaining upright posture and a comfortable full range of motion in the joints, especially the shoulder joints. For example, the client should be able to perform scapula retraction and depression without pain. There should be no open wounds from surgery or radiation therapy.

Have your client get permission from the surgeon on whether or not RT can begin (2).

Lat = Latissimus Flap; Reps = repetitions; RT = resistance training; TRAM = (Transverse Rectus Abdominus Myocutaneous).

Table 2
Appropriate exercises for the breast cancer client

Exercise	Benefit	Sets/Reps	Specific to treatment type
Internal shoulder rotation	Strengthens rotator cuff (subscapularis), which is often weakened by surgery. Will help regain strength and mobility in shoulder	1–3 sets (begin only with 1 set and slowly work up to 3 sets)/8–12 reps	Lumpectomy
			Mastectomy
			Implants
			TRAM surgery
			Lat surgery
			Radiation/chemotherapy
External shoulder rotation	Strengthens rotator cuff (teres minor, infraspinatus), which is often weakened by surgery. Will help regain strength and mobility in shoulder	1–3 sets (begin only with 1 set and slowly work up to 3 sets)/8–12 reps	Lumpectomy
			Mastectomy
			Implants
			TRAM Ssrgery
			Lat surgery
			Radiation/chemotherapy
Seated row	Strengthens latissimus dorsi, rhomboids, middle trapezius, biceps, and posterior deltoids	1–3 sets (begin only with 1 set and slowly work up to 3 sets)/8–12 reps	Lumpectomy
			Mastectomy
			Implants
			TRAM surgery
			Lat surgery
			Radiation/chemotherapy
Transverse abdominis activation on all fours	Strengthens transverse abdominals. Helps to keep core strong and stabilizes spine	1–3 sets/8–12 reps	TRAM surgery
Pelvic tilts (lying supine on floor)	Engages abdominal muscles (rectus abdominus, internal and external obliques, and transverse abdominus)	1–3 sets (begin only with 1 set and slowly work up to 3 sets)/8–12 reps	Lumpectomy
			Mastectomy
			Implants
			TRAM surgery
			Lat surgery
Bridges (lying supine on floor)	Strengthens glutes and hamstrings. Also improves core strength by promoting hip and torso stability	1–3 sets (begin only with 1 set and slowly work up to 3 sets)/8–12 reps	Lumpectomy
			Mastectomy
			Implants
			TRAM surgery
			Lat surgery

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Information obtained from Kaelin et al. (2).

why it is always important to assess how the client is feeling before each exercise session. It can be helpful to have the client rate their pain, energy, and overall well-being before beginning exercise. Furthermore, it is extremely important to take the appropriate arm circumference measurements for any clients with lymphedema in the beginning and end of your exercise session (2). This is a helpful guide for both you and your client to check if the circumference or size of the affected arm has changed at all during exercise.

Resistance training is especially beneficial to the breast cancer survivor because many times, she is left with muscle imbalances and weaknesses after surgery. For example, if the client has had reconstructive surgery such as Transverse Rectus Abdominus Myocutaneous (TRAM) flap and a muscle has been relocated, it is important to

strengthen the surrounding muscles to compensate for the loss. The goal here is to rebuild the strength of the weakened and affected muscles so that daily tasks and enjoyable activities can become possible again (2). Table 1 summarizes RT recommendations for breast cancer patients.

Table 2 provides a list of upper extremity and core exercises and the benefits they can have for your client depending on what type of treatment they underwent. It would be advisable to incorporate total body strengthening. For a beginner, this would include exercises for the large muscles of the lower extremity (squats, chair sit to stand, lunges, and so on).

Developing a RT program for the breast cancer client will help her regain strength in the muscles that have been affected by surgery and other

treatments and improve her quality of life. But, perhaps more importantly, it will also help to regain her mind, spirit, and love of her body. Resistance training can be an extremely powerful tool in the healing process, both physically and mentally.

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