

Stronger than Before: Focus on Exercise after Breast Cancer Treatment

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Overview

- Physical & emotional side effects of breast cancer treatment
- Benefits of exercise to reverse side effects and decrease recurrence
- *Strength & Courage DVD: Exercises for Breast Cancer Survivors*
 - DVD Development, Distribution & Research
- Benefits of a home exercise program for survivors
- ACSM Guidelines Exercise for Cancer Survivors
- Aerobic exercise, flexibility, resistance training
- Exercise for those at risk and with lymphedema
 - What you can and should do
- Strength & Courage DVD as an exercise resource
- Demonstration of stretching exercises to benefit BCS

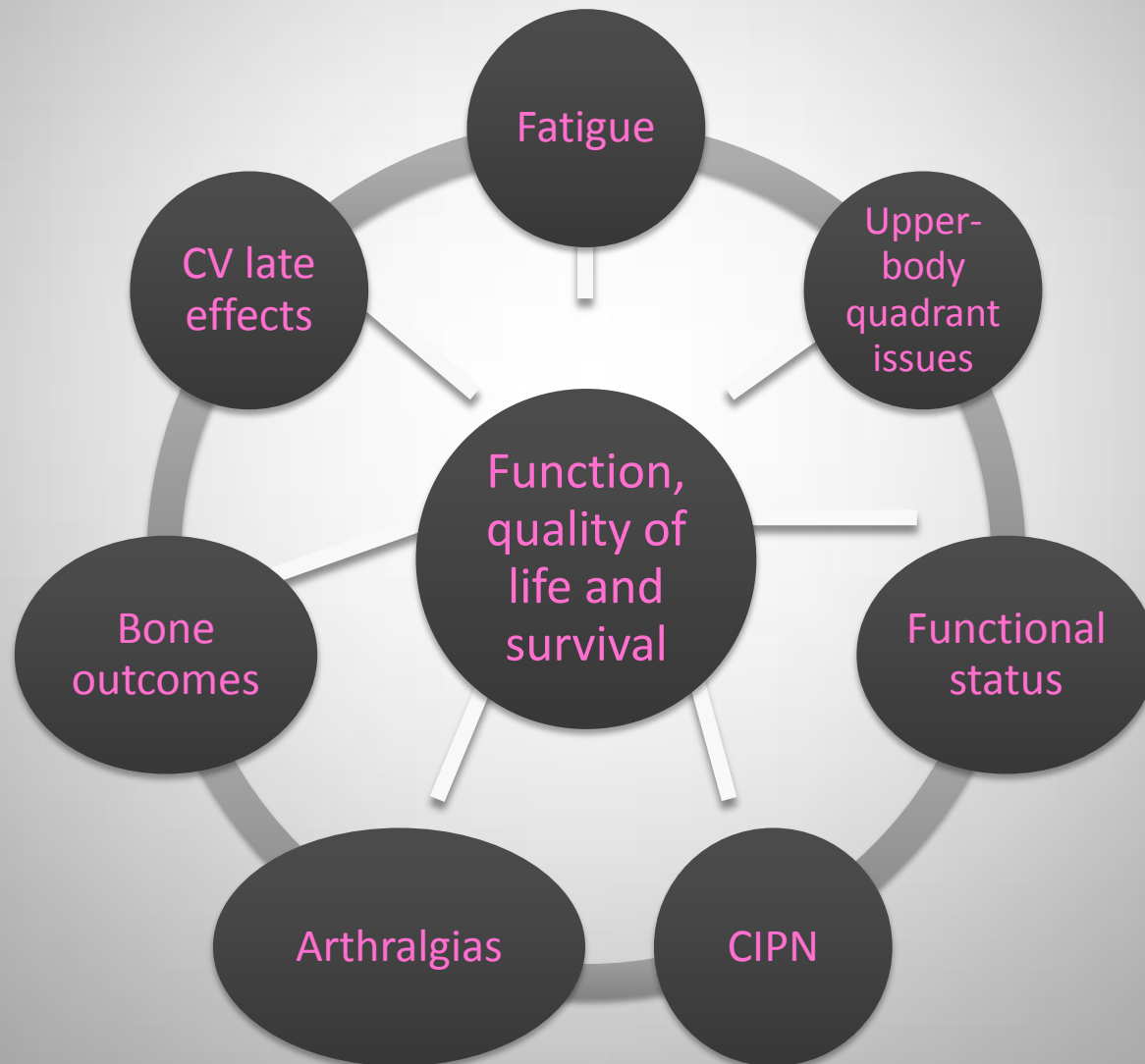


Objectives/Goals of Exercise Prescription in Breast Cancer Survivors

- Persistent adverse effects of cancer treatment
 - Prevent
 - Treat
 - Attenuate
 - Rehabilitate
- Improve physiological and psychological ability to withstand current or future cancer treatments
- Reduce or delay recurrence or 2nd primary cancer (Irwin, Holick, Holmes, others)



Persistent Adverse Effects of Breast Cancer Treatment



Benefits of Fitness to Breast Cancer Patients

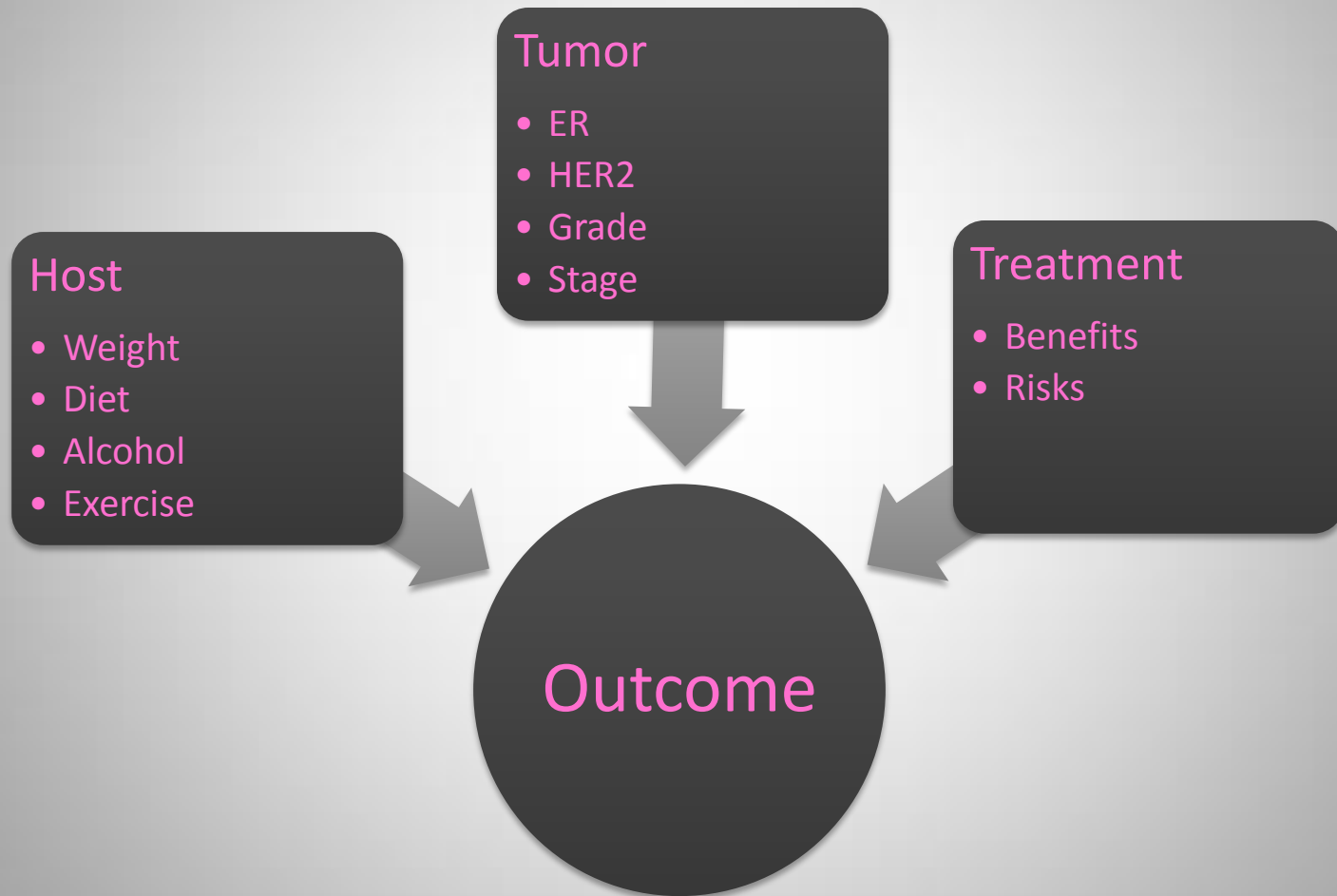
Exercise associated with:

- Enhanced functional muscle strength
- Increased flexibility
- Decreased weight gain
- Decreased fatigue
- Less nausea during chemotherapy
- Improved quality of life
- Improved self-esteem

McNeely ML et. al.CMAJ 2006

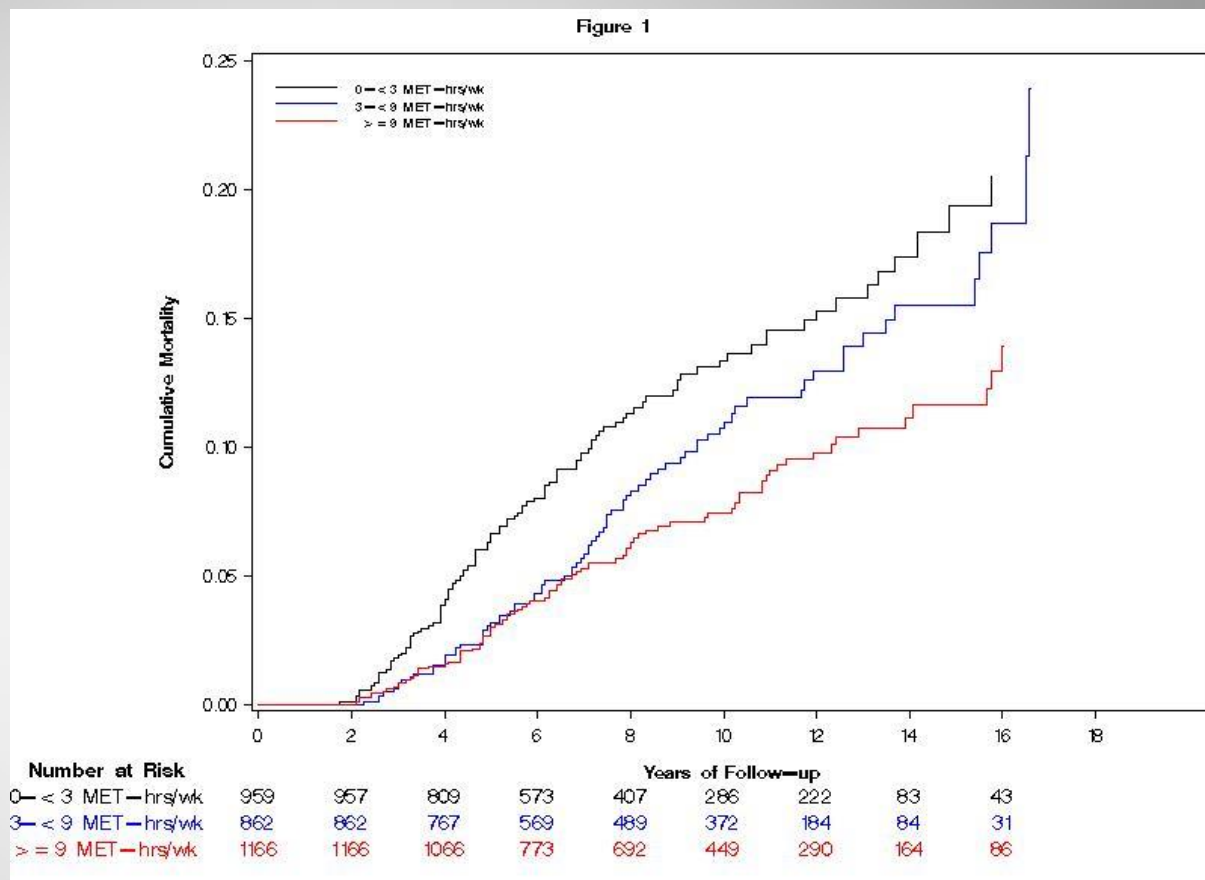


Determinants of Breast Cancer Outcome



Increase Exercise for Breast Cancer Survivors

- **Prospective observational study based on responses**
- 2987 female registered nurses in the Nurses' Health Study who were diagnosed with stage I, II, or III breast cancer between 1984 and 1998 and who were followed up until death or June 2002, whichever came first.



The greatest benefit occurred in women who performed the equivalent of walking 3 to 5 hours per week at an average pace, with little evidence of a correlation between increased benefit and greater energy expenditure.



Consider your weight



<http://www.nhlbisupport.com/bmi/>



Analysis of 3 trials that examined the benefit of chemohormonal therapy in women with breast cancer

RESULTS:

- Out of close to 5,000 women treated for cancer, about one-third were obese and another one-third were overweight.
- Over the next eight years, one in four women had their cancer come back and 891 died - including 695 from breast cancer.
- ER+, Her2 negative patients had worse outcomes when their BMI was in obese and overweight ranges
 - Obese women had higher risk of developing breast cancer again after treatment
 - Women who were obese at time of breast cancer diagnosis had approximately a 30 percent higher risk of recurrence and a nearly 50 percent higher risk of death than those who were normal weight at time of diagnosis
 - Even among overweight but not obese women, there was also a general trend toward a higher risk of recurrence and death with increasing weight.
 - This was not seen in triple negative or Her2+ cancers

CONCLUSIONS:

- Obesity was associated with inferior outcomes specifically in patients with hormone receptor-positive operable breast cancer treated with standard chemohormonal therapy.
- Cancer , 2012. Aug 27



My experience with Breast Cancer

- Diagnosed with breast cancer in 2002. Surgery--lumpectomy & axillary node dissection
- Impact on my life-
 - difficulty performing daily tasks
 - impaired occupational demands as a pediatrician
 - negative impact on recreational activities

I couldn't golf!



Problems encountered

Minimal resources offered at treatment center

- 2 page handout of stretching exercises
- Script for physical therapy
- Not enough!

Solution

- Exercising with health fitness instructor
- Stretching, weight training & aerobic exercise



Back in the Swing



Idea for *Strength & Courage* DVD

- Most women have problems after breast cancer treatment with upper body strength and flexibility
- Most women can't afford a personal trainer or may not have time to go to a gym
- Create an exercise DVD that could be used at home and reach a wide socioeconomic group
- S & C created in 2007 and released in 2008
- Since 2008, over 17,000 DVDs distributed in 50 US states & 16 countries.
- Now available as downloadable file



Strength & Courage

Exercises for
Breast Cancer
Survivors



How to obtain *Strength & Courage*

- In SW PA, patient should first request through her cancer treatment center.
- For an individual outside of SW PA, the DVD/electronic file is \$20. (Bulk quantities available.)^a
- Reduced rates for research and Komen purchase.
- Visit www.strengthandcourage.net



Importance of Home Exercise Program

- 2.5 million breast cancer survivors in US
- Many in rural areas or cannot afford even a co-pay for PT
- A safe, clinically effective home exercise program is needed!

Exercise is Medicine



Research with Strength & Courage

- University of Kansas-already published
- University of California San Diego
- University of Pittsburgh Medical Center
- University of Miami
- Several other centers also interested

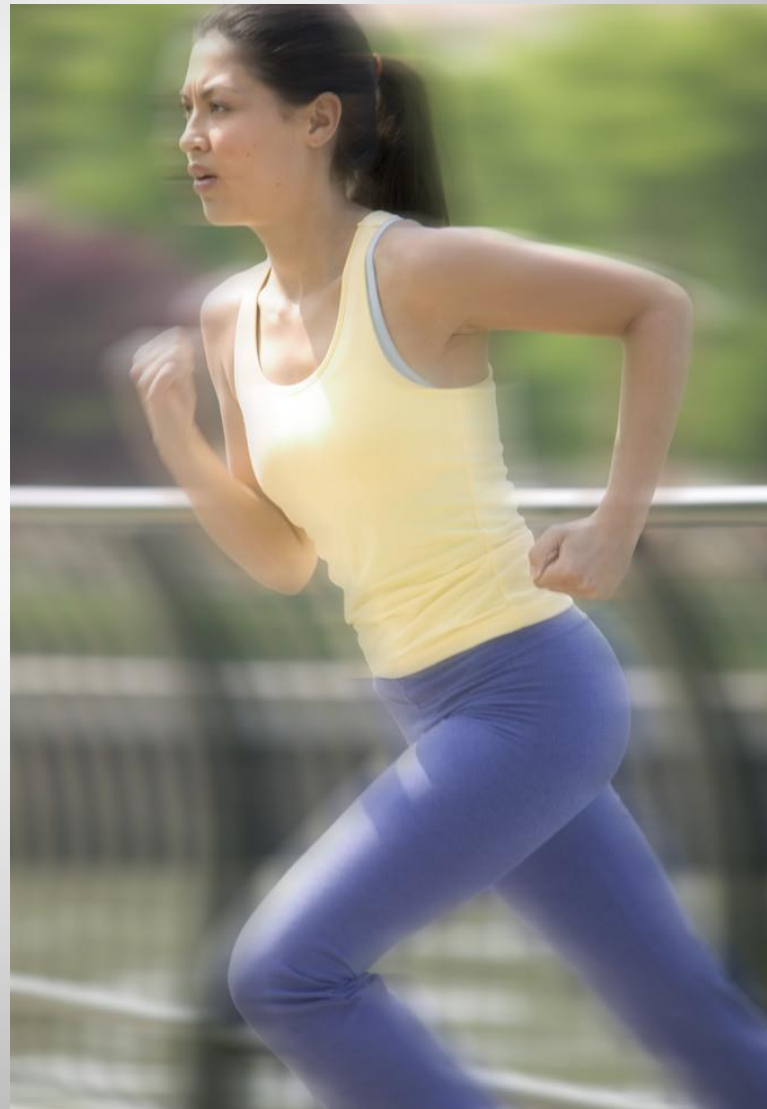
Results to follow



Our patients didn't survive cancer to sit on the couch!



The Mechanics
of Exercise



ACSM Guidelines

Exercise for Cancer Survivors

General Statement

- AVOID INACTIVITY
- Return to normal daily activities as quickly as possible after surgery
- Continue normal activities and exercise as much as possible *during* and after non-surgical treatments
- Metastatic patients will require modifications and more supervision
- Patients with cardiac findings may require greater supervision



Exercise Recommendations

Recommendations are the same as age appropriate guidelines for All Americans

Aerobic:

- 150 minutes weekly moderate intensity activity
- Build to 150 min/week over 1 month
- EVEN DURING TREATMENT

Flexibility:

- Daily

Resistance Training:

- 2 x weekly, each major muscle group, 8-10 repetitions, 1-3 sets per exercise
- Start with a supervised program
- Start low, progress slow



Patients must remember to:

- Consult their physician
- Listen to their body
- Stay true to the form of the exercise
- Include lifestyle activity
- Set manageable goals

- **REMAIN ACTIVE**



Physical, Emotional and Educational Benefits

Educationally: teach a patient about the importance and methods of exercise (alert)

Emotionally: help a patient regain control of their life (calm)

Physically: help a patient regain their strength and flexibility (energized)



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Alert **C**alm **E**nergize your workout (**ACE**)

© Livestrong



Posture Exercises (Flexibility)

- Can be started the day after surgery along with the post-op exercises. (If surgical drains present, wait for removal before attempting all exercises.)
- Start doing the exercises 5 times each, 2 times a day
- Progress to 10 times each, 2 times a day
- Beneficial for anyone
- Eventually will take just minutes to complete the series of exercises



Post Op Exercises (Flexibility)

- Can be started the day after surgery. (If surgical drains present, may need to wait for removal. Rely on surgeon preference.)
- Start doing the exercises 5 times each, 2 times a day
- Progress to 10 times each, 2 times a day
- These exercises can be stopped once the patient is pain free and has full range of motion as long as other flexibility exercises are being executed



Flexibility Training

- Should be started after post op and posture exercises are mastered
- Advanced range of motion exercises for the upper body
- These exercises can be done daily
- These exercises should be completed before and after lifting weights along with an active warm-up



Weight Training

- Begin these exercises once you receive clearance from your surgeon
- Weight lifting exercises should be done no more than EVERY 48 HOURS.
- Complete each exercise using the same weight for 2 sets of 10 repetitions
- Rest 1 to 2 minutes between sets



Increasing the Weight

- When the exercise is completed consistently and with proper form, a patient may increase the amount of weight they are using
- Under the above conditions, an increase of 1 pound per week is usually safe up to 4 pounds



Weight Lifting Consideration

Upper body weight lifting exercises can be effective for most people throughout their lives. Going beyond a 5 pound weight for a breast cancer survivor should be done only after consulting with a qualified fitness professional



Aerobic Exercise

- Can be reviewed early in the course of treatment with post op and posture exercises
- Begin with a 5 minute large muscle group warm-up
- Complete a series of stretches
- Begin with 5 to 10 minutes of a favorite aerobic activity
- End with a 5 minute large muscle group cool down and a series of stretches



Increasing Aerobic Exercise

- When exercising consistently, increase your aerobic activity by 5 minutes per week
- A patient's goal should be to attain a 30-45 minute aerobic exercise session, 3 to 5 days per week



Lymphedema and Exercise



Lymphedema and Exercise

- Many myths passed on and that's-the-way-it's-always-been advice given
- Exercise does NOT increase the risk of developing Lymphedema
- In fact, it has been proven beneficial for breast cancer survivors who have Lymphedema, and those at risk of developing it.

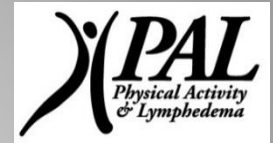


National Lymphedema Network

- Begin at low levels and increase with small increments (time, weights, etc)
- Do not exercise through pain, swelling or discomfort
- Avoid extreme heat or overheating
- If diagnosed with lymphedema, wear compression garments
- Report any adverse effects to a medical professional



Physical Activity and Lymphedema Trial



- Year-long study evaluating a slow, progressive weight lifting program in breast cancer survivors
- Half of participants had lymphedema, half did not (“at risk”)
- Exercise group (both with and without lymphedema) and control group (both with and without lymphedema)
- 2 goals:
 - For women with lymphedema, determine if weight lifting would worsen it
 - For women without lymphedema, determine if weight lifting would impact its onset



PAL Trial Results

- For women without for lymphedema, less onset was noted in the exercise group
- For women who did have lymphedema, fewer flare-ups were experienced in the exercise group
 - Flare-ups cut in half!



To Wear or Not To Wear...

- Individuals with a diagnosis of Lymphedema should wear compression garments with aerobic and resistance exercise
- Individuals at risk for Lymphedema may or may not utilize compression garments during exercise; this is an individual decision (NLN)



Key Points

- Progressive weight lifting might be better than not exercising an arm at risk for or with lymphedema. It may help prevent the condition
- Weight lifting doesn't increase risk of development or exacerbation of lymphedema
- Slow, progressive weight training
- With a diagnosis of lymphedema, wear a well-fitting compression garment for exercise



Strength and Courage:

Exercises for Breast Cancer Survivors

Contains 5 chapters and an
exercise log



Chapters of the DVD

Will assist patients in:

- Improving their posture
- Regaining their upper body range of motion
- Regaining their upper body strength
- Providing them with guidelines for aerobic conditioning
- Addresses the concerns of Lymphedema and exercise



Appendix: Exercise Log

The DVD includes a printable progress chart

The chart includes:

- Aerobic activity reminders
- Weight lifting reminders
- List of Posture and Weight Training exercises
- A place to record the date, number of sets and repetitions, and weight amount



If we do not make time for
exercise, we will be making time
for disease

Let's exercise!

Cancer Exercise Trainer

American College of Sports Medicine/American Cancer Society

Personal Fitness Trainer trained to:

- Design and administer fitness assessments and exercise programs for those affected by cancer
- Have an understanding of cancer diagnosis, treatment, side effects, and how exercise is implicated
- Currently 100 trainers in the United States

Conclusion

We want to tell our patients, “rest, you have been through a lot.” But the truth is without exercise they will continue to feel fatigued, lack range of motion and lack strength.

Through exercise YOU can be Stronger than Before. You can regain your flexibility, regain strength, participate in daily activities, and simply put – regain control of your life!

Thank you



References

- Schmitz KH, Ahmed RL, Troxel AB, et al. Weight lifting for women at risk for breast cancer-related lymphedema: a randomized trial. JAMA. 2010;304(24);2699-2705
- Schmitz KH, Ahmed RL, Troxel A, et al. Weight lifting in women with breast-cancer-related lymphedema. N Engl J Med. 2009;361(7):664-673.
- Position Statement of the National Lymphedema Network. Topic: Exercise. May 2011.

