

## **COURSE OBJECTIVES**

### **Strength After Breast Cancer**

This course will prepare therapists to deliver the Strength After Breast Cancer program which is an evidence-based rehabilitative exercise program for breast cancer survivors. The Strength ABC program is based on the Physical Activity and Lymphedema (PAL) Trial which assessed the safety and efficacy of slowly progressive weightlifting for breast cancer survivors with, and at risk for, lymphedema. As reported in several peer-reviewed scientific journals, this weightlifting intervention had significant benefits for breast cancer survivors.

The Strength ABC course covers all aspects of setting up and running the Strength After Breast Cancer program including how to:

- Obtain referrals from oncology clinicians
- Screen participants
- Coordinate with a Certified Lymphatic Therapist (who must also be a Physical or Occupational Therapist)
- Educate participants about lymphedema
- Teach the 4-session exercise program
- Instruct patients on how to log their progress
- Motivate participants
- Handle logistical considerations
- Manage discharge and wrap-up

Upon completion of the course, the student will be able to:

- Cite the scientific research evidence that led to the Strength After Breast Cancer Program.
- Identify the structure and function of the lymphatic system, particularly relating to the risks and benefits of slowly progressive resistance training among breast cancer survivors.
- Convey the Strength After Breast Cancer program flow, logistical considerations, and business model.
- Describe appropriate methods to safely and effectively teach breast cancer survivors to independently perform slowly progressive weightlifting exercise.
- Identify established methods for motivating participants to do the Strength ABCs program regularly (twice weekly).
- Instruct participants on how to progress resistance appropriately, reduce resistance after not exercising for more than a week, use appropriate biomechanical form, monitor symptoms, and get appropriate evaluation for any change in symptoms that lasts a week or longer.

## INSTRUCTOR BIOGRAPHY

### Kathryn Schmitz, PhD, MPH, FACSM



**Kathryn (Katie) Schmitz** is a professor at the University of Pennsylvania's Perelman School of Medicine. She is an exercise interventionist who has led multiple trials, including a large randomized controlled trial, the Physical Activity and Lymphedema Trial (PAL), to assess the safety of upper body exercise among 295 breast cancer survivors with and without lymphedema. In Spring 2011, her research group began work to translate the PAL intervention to become more broadly disseminable through oncology clinics and physical therapists (R21-CA152451). Katie's research extends from the role of physical activity in the prevention and etiology of obesity related cancers, to the usefulness of activity for rehabilitation and health promotion in cancer survivors of all cancers. Her meta-analyses on the topic of exercise interventions in cancer patients and survivors, published in 2005 and 2010, provide a starting point for clinicians to understand the effects of exercise among cancer survivors.

Katie has published over 160 peer reviewed scientific papers (scopus h-index of 39) and has had continuous NIH funding for her research since 2001, including three R01s, two R21s and a TREC Center (Transdisciplinary Research on Energetics and Cancer). She has also received research support from the Robert Wood Johnson Foundation, Susan G. Komen for the Cure, and the Agency for Health Care Research and Quality.

Katie has served on the expert panel for the YMCA/Lance Armstrong Foundation Cancer Survivorship Collaborative, wrote the cancer survivorship section of the recently published U.S. DHHS report of the Physical Activity Guidelines Advisory Committee, served on the ad hoc committee that developed the ACSM Cancer Exercise Trainer certification, and is the lead author of the ACSM Roundtable on Exercise for Cancer Survivors, which published guidance for exercise testing and prescription for cancer survivors in July 2010.

In 2010, the National Lymphedema Network awarded Katie the Catalyst Award, which recognizes a researcher whose work has stimulated thought, discussion, and debate that leads to improvement in patient care for those with lymphedema. Katie's long-term professional goal is to see that all oncologists, fitness trainers, and cancer patients will eventually be as cognizant of the usefulness of exercise for cancer control as they are in its role in controlling heart disease.

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