



Dragon Boating For Breast Cancer Survivors

Connie Jasinskas
H.B.Sc., B.Ed., M.Sc.
Certified Exercise Physiologist

Objectives:



- List the benefits of exercise related to BCS dragon boating
- Discuss health concerns some survivors may encounter with dragon boating
- Present strategies to optimize training and performance for BCS dragon boaters

Why Exercise?



- Research has shown that women who did regular, moderate to strenuous aerobic exercise had a 30% reduction in BrCa risk.
- Walking 1.25 – 2.5 hours / week reduced risk.
- ≥ 4 hours of exercise / week reduces BrCa risk by 50 – 60%.
- Lean women have the lowest risk: optimal BMI ≤ 24 .
- Exercise improves general health and quality of life, while reducing risk of BrCa occurrence / re-occurrence.

Why Exercise?



- Enhanced lymphatic drainage
- Restoration of functional ROM of affected limb(s)
- Maintenance or enhancement of muscular strength and endurance of affected segments as well as the whole person

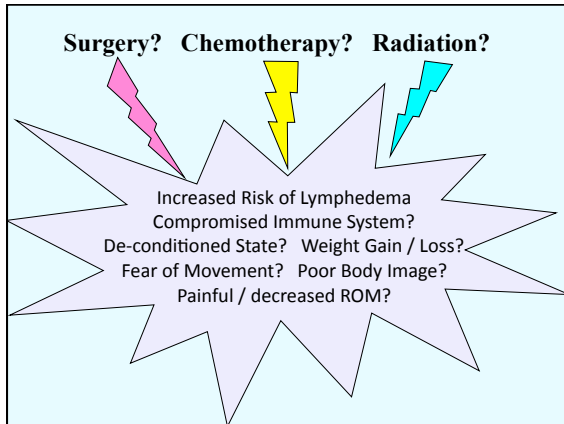


Done well...

BCS paddling is a floating support group!



We all understand the journey...



Treatment Issues & After-Effects:

- The nerve supplies to latissimus dorsi, pectoralis major and minor, and serratus anterior can be affected by breast cancer surgery / radiation.
- Cutaneous nerves to the skin of the upper arm and chest wall can also be affected.
- It is suggested that nerve damage is temporary. This is not the experience of many survivors.



Tram Flap Reconstruction
Rectus Abdominis muscle is cut and relocated to the chest wall = potential loss of abdominal strength

Lat Flap Reconstruction
Latissimus Dorsi muscle is cut and relocated to chest wall = potential loss of lat function

Latissimus dorsi muscle
Skin, fat, and muscle moved to chest

Treatment Issues & After-Effects:

- Axillary dissection and radiation therapy increase the risk of lymphedema in the affected arm.
- Radiation can 'spill over' into lung and heart tissue, with 'continuing damage over the course of the person's lifetime'.
- Reactions to radiation can lead to: inflammation, fibrosis, vascular damage, and tissue atrophy.



Taping for Lymphedema

- Kinesiotape can be used to reduce fluid accumulation on the chest wall
- Taping can also be used instead of, and / or in addition to compression sleeves

Taping for Brachial Lymphedema

General Goals for BCS Exercise:

- Decrease any existing muscle spasm or guarding.
- Increase muscle relaxation & joint mobility.
- Improve strength of core and limb muscles.
- Improve energy levels.
- Build all components of fitness & general health.
- Improve psychological state: confidence; self-esteem.
- Decrease isolation / depression: offer **support**.
- Improve **QUALITY OF LIFE!**

Specific BCS Goals Related to BrCa Issues:

- **Restore proper biomechanics** (optimize ROM): especially shoulder joint and shoulder girdle of affected side.
- **Improve strength / endurance** of injured and supporting muscle groups (core to hand).
- **Improve lymphatic flow** of affected limb with muscle activation and strengthening through full range of motion.
- **Reduce susceptibility to hypokinetic disease** with cardiovascular exercise.
- Lose fat if necessary; increase lean body mass – **to optimize BMI & reduce risk of lymphedema / BrCa recurrence.**

Research: Tidar, D., Aquatic Lymphatic Therapy for Postsurgical Breast Cancer Lymphedema, Rehabilitation Oncology, 2004

- Women who have breast cancer (BrCa) surgery have high risk for developing lymphedema. **Lymphedema occurs** in 6% - 70% of the post BrCa population.
- **It can occur years after surgery / treatment.**
- **Main risk factors are:** obesity and irradiation of the axilla.
- **Symptoms & signs include:** pain, swelling, reduced ROM, weakness, chest lymphedema, difficulty with daily activities, & psycho-social factors (ie: low self-esteem and poor self-image).

Abreast in a boat: A race against breast cancer

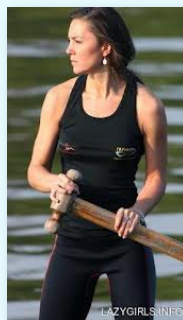
Donald C. McKenzie M.D., PhD,
CMAJ 1998: 159:376-378



“...upper body exercise has a role in recovery from breast cancer and lymphedema because it can improve range of motion and reverse muscle atrophy, activate skeletal muscle (which may help pump lymph), stimulate the immune system and reset the sympathetic tone of the lymphatic vessels.”

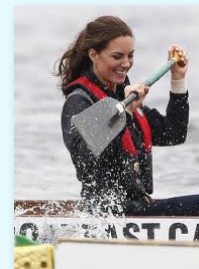
Health Screening to Start:

- ✓ How long post treatment?
- ✓ Health Screening: Par-Q, Par-Med-X
- ✓ Medical ‘clearance’ if needed
- ✓ Gradually improve general fitness **before** getting in the boat!



Exercise Considerations: **OVERLOAD!**

Don't be a princess, but...



- Seek expert coaching and exercise instruction
- Use proper equipment
- Monitor energy / pain levels post exercise
- Monitor swelling – limb or torso discomfort
- Monitor general health and well being

General Recommendations to begin BCS Paddling:

- One-on-one attention from a qualified coach
- **May have shorter exercise sessions to start...** rest breaks; split practice
- Paddle alternate sides if at all possible to foster symmetry
- **Don't be a hero! Give yourself time...**
- Comfortable air temperatures and good air quality

Issues of Asymmetry:

- BrCa surgery & treatment are often on one side only
- Dragon boating is a one-sided activity
- Encourage ambidextrous paddling if possible
- If not possible to paddle both sides, do other training to foster symmetry of range of motion & function

Considerations for BCS Paddlers:

- If it hurts, don't do it = No "BAD Pain".
- Follow physician's / therapist's guidelines re: movement – flexion / extension; loading...
- **Respect other health issues:** Diabetes? Heart disease? Osteoporosis?



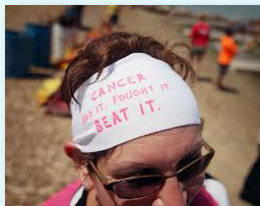
More Considerations for BCS Paddlers:

- **Skin of your affected limb must be in good condition:** any open skin or infection is an absolute contraindication for contaminated water.
- Water-barrier cream may be required.



Potential Limitations & Considerations for BCS Paddlers:

- **Post-exercise swelling of affected limb(s):** monitor from time to time after a training session.
- **Consider any co-morbidities:** cardiac, kidney, musculo-skeletal conditions that may affect ability to exercise.



Thanks & Paddles UP!



Connie Jasinskas, B.Sc., B.Ed., M.Sc.
Certified Exercise Physiologist
BreastStroke's Steer

