

Midwest Metastatic Breast Cancer Conference



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PT, MS, MA, OCS, CLT
“Exercise & Cancer”

Presented By:



Title Sponsor:



Comprehensive Cancer Center designated by the National Cancer Institute

Exercise, Physical Therapy, and Metastatic Breast Cancer

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Edina, MN

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Why Exercise and PT?

- Promote best *quality of life*
- Maximize function, independence and safety

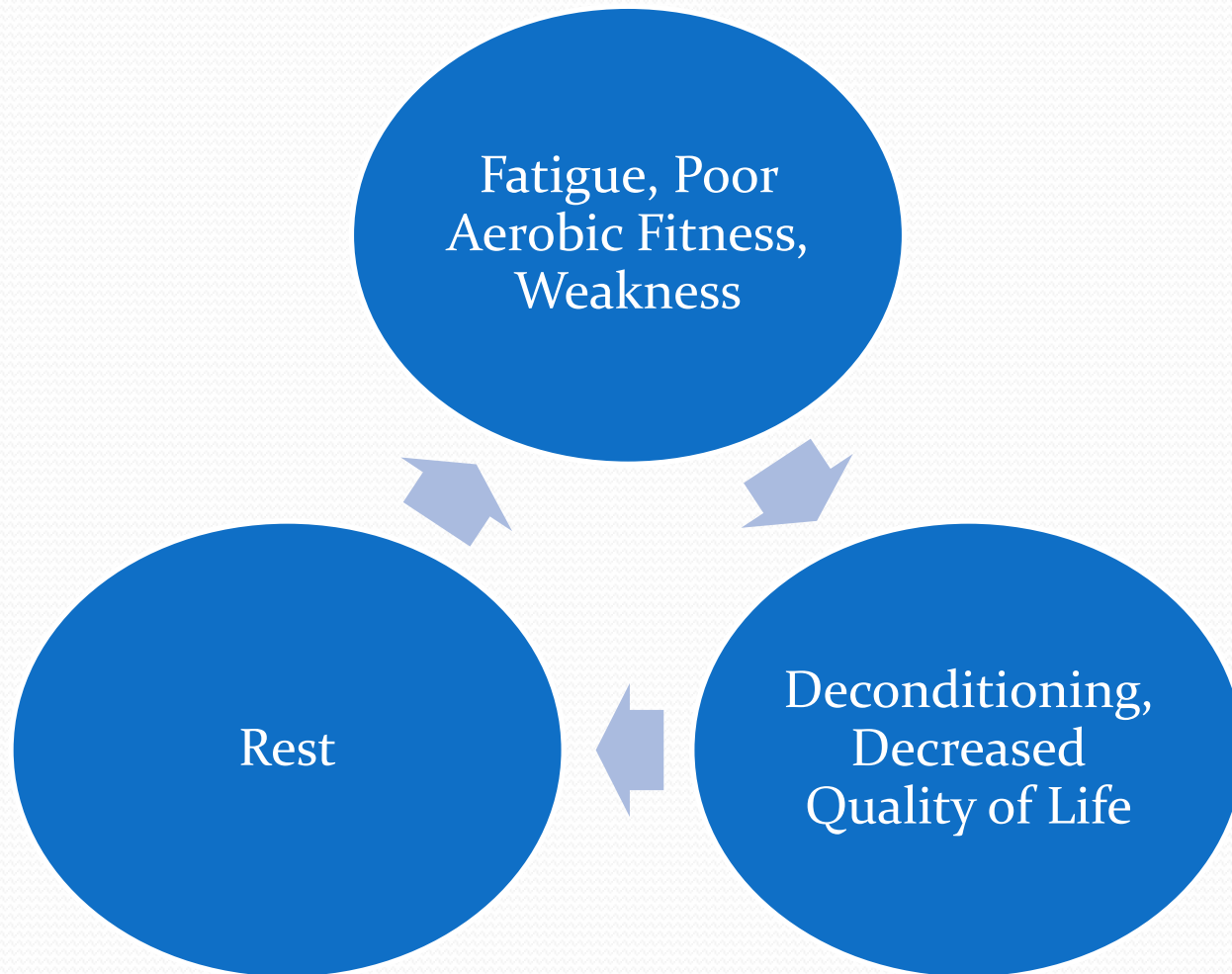


What are We Trying to Address?

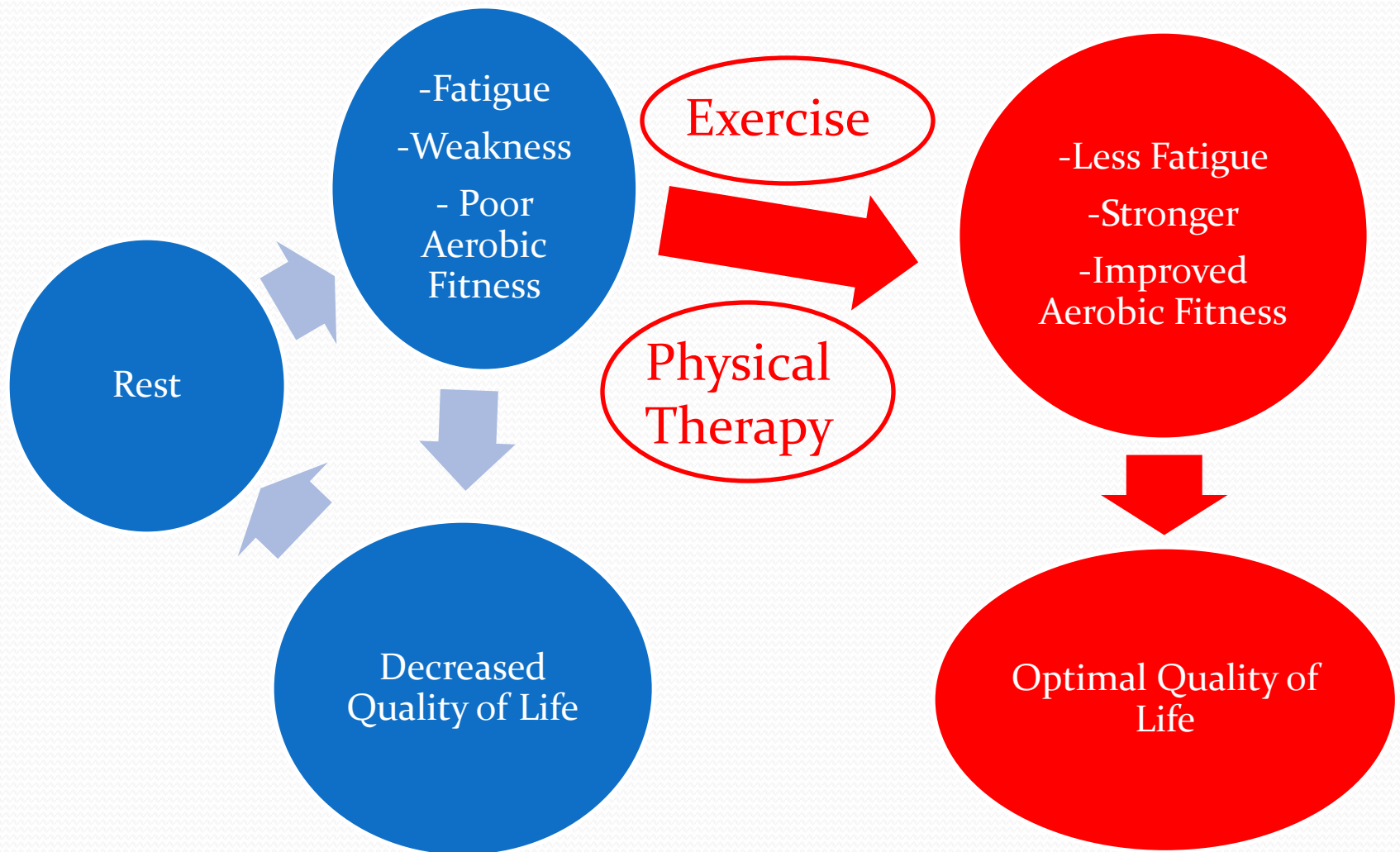
- People with metastatic breast cancer
 - Less aerobically fit
 - Weaker
 - Less physically active
 - More fatigued
 - More difficulty breathing

Yee, J., Davis, G.M., Beith, J.M. et al. J Cancer Surviv (2014) 8: 647.
<https://doi.org/10.1007/s11764-014-0378-y>

Old Model



New Model



Exercise as Medicine

- Decrease fatigue
- Reduce depression and anxiety
- Improve bone and heart health
- Increase muscle strength and muscle tone
- Improve lymphedema control
- Decrease 'chemo brain'
- Improve cognition
- Better sleep



Is Exercise Safe?

“Rehabilitation is indicated in the presence of bone metastases to maintain function and promote safety and fracture prevention with activities of daily living.”



Maltser S et al. A focused review of safety considerations in cancer rehabilitation. PM&R 2017; S415-428.

Is Exercise Safe?

- Exercise can have protective effect on loss of bone mineral density secondary to hormone treatment
- Skilled rehabilitation does not increase fracture risk
- Care with resistance, compression, rotation



Is Weight Training Safe with Bone Metastases?

- Ask your physician if you are safe to exercise
- Avoid compression and shear stress on bony metastases
 - Rib, thoracic spine involvement: avoid shoulder flexion, abduction / adduction but include biceps, triceps
 - Lumbar Spine Involvement: avoid trunk/spine compressive loads
 - Femur Involvement: avoid hip flexion/extension

-Cormie P et al. Safety and efficacy of resistance exercise in prostate cancer patients with bone metastases. Prostate Cancer and Prostatic Dis. 2013 Dec; 16(4):328-35.

-Cormie P et al. Functional benefits are sustained after a program of supervised resistance exercise in cancer patients with bone metastases: longitudinal results of a pilot study. Support Care Cancer. 2014;22(6):1537-48.

Weight Training & Bone Metastases

- 60 min, 2x/week x 3 months
 - 5 min warm up, 10 min cool down
 - 8 exercises designed to address large muscle groups
 - Upper Body, Lower Body, Trunk Exercises
- Individually prescribed weight training programs improved:
 - Function
 - Physical activity level
 - Lean body mass
 - Quality of life

Cancer-Related Fatigue

“a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning.”

- National Comprehensive Cancer Network

Fatigue



- >75% of patients with metastatic cancer treated with radiation and/or chemotherapy have experienced cancer related fatigue
- Affects physical and psychosocial well being as well as the ability to work and quality of life
- Can be present during and after treatment
- Exercise may be more effective than pharmacology / drugs in reducing fatigue

Lymphedema

- Lymphedema
 - Swelling due to accumulation of protein and fluid
 - Incidence:
 - Axillary lymph node dissection: 11% - 57%
 - Sentinel lymph node biopsy: 0%-23%



Schaitelman et al. Recent progress in the treatment and prevention of cancer-related lymphedema. CA Cancer J Clin 2015; 65: 55-81.

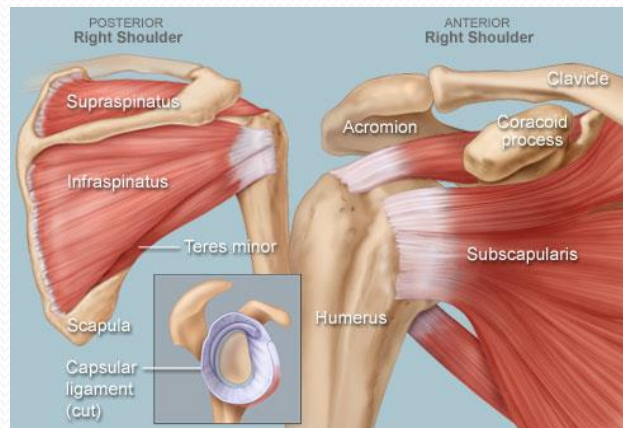
Lymphedema

- PAL Trial: Progressive weight training program
 - 2x / week x 12 months
 - Did not increase lymphedema incidence
- Use well-fitting compression garment if have clinical lymphedema
- Be aware of early signs and symptoms of lymphedema
 - Fullness, heaviness, achiness, numbness, tingling
 - Lymphedema therapist intervention

Schmitz et al. Weight Lifting for Women at Risk for Breast Cancer–Related Lymphedema. A Randomized Trial. *JAMA*.2010;304(24):2699–2705. doi:10.1001/jama.2010.1837.

Help is Available

- Shoulder Pain
 - 35-58% of breast cancer survivors report continued shoulder and arm pain (Kootstra JJ et al. 2013)
- Postmastectomy Pain Syndrome
- Shoulder, Trunk Range of Motion
- Posture
- Balance



Exercise Tips



- Get clearance from your MD
- Consult a Physical Therapist or Exercise Physiologist
- Expect an individualized exercise program based on your specific situation and goals
- *The potential benefits of exercise far outweigh the risk of being sedentary*



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