
EXCLUSIVE 1-CEU WEBINAR PRESENTATION
An Interprofessional Approach to Food and Fitness After Cancer
PRESENTED BY
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November 10, 2021, 7–8 pm ET
EARN 1 CEU

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Learning Objectives

1. Evaluate the benefits of physical activity and its correlation to nutrition in the cancer population.
2. Recommend medical nutrition therapy and exercise strategies for the long-term care of the cancer survivor as they relate to metabolism and body composition.
3. Incorporate interprofessional collaboration in the care of cancer survivors.

The Multidisciplinary Care Team (MDT)

Defining Roles

Who is on the MDT?

- Medical Doctor
- Patient Navigator
- Physical/Occupational Therapist (inpatient/outpatient)
- Registered Dietitian
- Exercise Physiologist
- Social Worker (LCSW)
- Geneticist
- Advanced Practice Providers (APP) and Nursing staff

The Exercise Physiologist's Role with a Cancer Survivor

Clinical Exercise Physiology is understanding:

- **Acute** responses and chronic adaptations to exercise training
- The role it plays in disease **prevention** and long-term health **maintenance**
- The **implications** of exercise on long-term physical, social, and economic independence

The RD's Role: *But First…*

- After treatment, a cancer patient may **feel different**; many call this a "new normal" and it may take months or years for patients to find their "new normal"
- Data supports that nutrition interventions are not only likely to help with cancer outcomes, but can also be important in preventing and managing some of the chronic health conditions that can occur after cancer treatment

Misconceptions about treatment ending include:

- "I *should* be **celebrating**."
- "I *should* feel **well**."
- "I *should* be the person I was **before** cancer."
- "I *should* **not** need support."

The RD's Role with a Cancer Survivor

So, what ***is*** the RD's role?

- Help a survivor **celebrate** by trying new foods that may not have tasted good during treatment
- **Educate** the client during "teachable moments" to **decrease recurrence**
- Help a survivor get the **nutrition** they need for energy
- Help a patient as they stay at or get to a **healthy weight**
- Be an active part of the support team as they **survive and thrive**

Cancer Survivorship

Cancer Survivorship

- Why are there so many cancer survivors?
- The American Cancer Society (ACS) and the National Cancer Institute (NCI) collaborate every 3 years to estimate cancer prevalence in the United States
- Approximately 16.9 million Americans with a history of cancer were **alive** on January 1, 2019
- Who is a cancer survivor?

Siegel RL, Miller KD, Jemal A. Cancer statistics. *CA Cancer J Clin.* 2019;69(1):7-34.

Cancer Survivorship

Our Oncology Survivorship Committee in Atlanta, GA has a working definition of survivorship:

"Oncology survivorship is a continuum of specialty care focused on supporting the highly-personalized journey of every cancer patient living with, through, and beyond treatment. Our programs form a community of support to help patients thrive and find life balance while addressing the physical, spiritual, emotional, social, and financial needs unique to oncology."

Cancer Survivorship

- Patients may experience a range of emotions
- They may be relieved that treatment is over but worry about the future
- Recognize a patient's fears and worries
- Assist in finding ways to deal with these worries

Cancer Survivorship

- They are often **highly motivated** to seek information
  - Improve treatment outcomes
  - Quality of life
  - Overall survival
- They **look forward** to the completion of therapy
- Begin to seek **self-care strategies** to improve their long-term outcomes
- For many, this includes:
  - **Healthy** weight management
  - A **healthful** diet
  - A **physically** active lifestyle aimed at **preventing** recurrence
- A medical professional **must remember** that managing nutrition needs and activity levels can become a challenge

Cancer Survivorship: *A Physician's Perspective….*

- What's the physician's role?
- Introduce the program and encourage
- Make referrals and offer support
- Educate about benefits
- Implement peer-to-peer mentoring
- Facilitate funding of programs through donors
- Deliver educational lectures to health care workers and the community:
  - Patients
  - Referring doctors
  - Discuss availability of resources
  - Stress the benefits and past successes of program participants

Treatment, Food, and Fitness

Before and After Cancer

Why Follow a Healthy Nutrition Plan as a Cancer Survivor?

- **Improve** alertness and energy
- **Improve** lean body mass
- **Improve** restorative sleep
- **Boost** the immune system
- **Maintain** a healthy weight
- **Improve** heart health
- **Strengthen** bones
- **Expediate** wound healing

After Treatment: *Benefits of a Healthy Eating Plan*

It can help decrease weight:

- There is a growing number of survivors beginning the cancer treatment process **already overweight or obese**
- Sometimes **additional weight gain** is a complication of treatment (particularly breast cancer); it's very important for a survivor to follow a nutrition plan to lose weight
  - According to NIH, obese breast cancer patients experience more complications related to surgery, radiation, and chemotherapy[1]
  - They also are at increased risk for local recurrence compared to normal-weight women because endocrine therapy is less effective
  - PubMed meta-analysis[2] suggested that a low-fat diet reduced risk of recurrence of breast cancer by 23% and all cause mortality of breast cancer by 17%
  - Obesity is associated with a 20-40% increase in risk for breast cancer in postmenopausal women[3]

1. Centers for Disease Control and Prevention website. https://www.cdc.gov/media/releases/2017/p1003-vs-cancer-obesity.html.
2. Xing MY, Xu SZ, Shen P. Effect of low-fat diet on breast cancer survival: a meta-analysis. Asian Pac J Cancer Prev. 2014;15(3):1141-1144.
3. Gonzalo-Encabo P, et. al. Exercise type and fat mass loss regulate breast cancer-related sex hormones in obese and overweight postmenopausal women. Eur J Appl Physiol. 2020;120(6):1277-1287.

After Treatment: *Benefits of a Healthy Eating Plan*

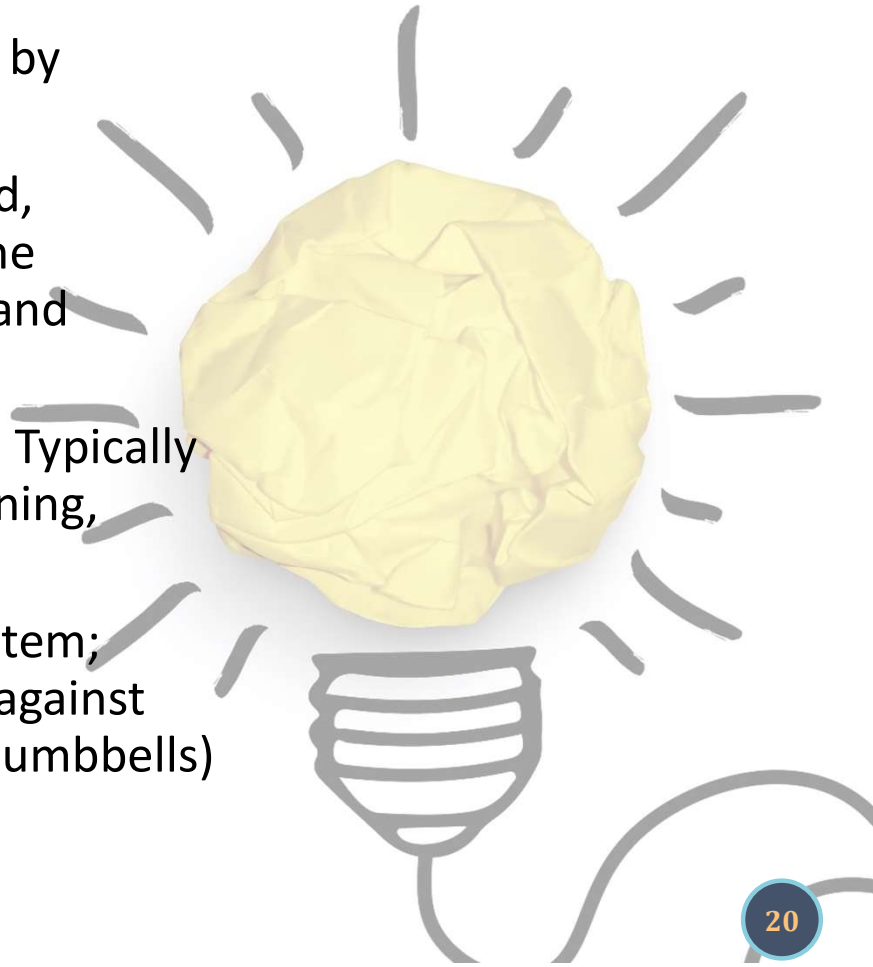
A healthy eating plan can help **decrease recurrence**:

- There is **strong evidence** that a plant-based diet cuts the risk of recurrence[1]
- Many epidemiologic studies have shown that people who **eat diets rich in fruits and vegetables** and limit in meat and animal fat have **lower rates of some cancers**, including lung, breast, colon and stomach cancers[2]
  - Educating the survivor on a **well-balanced colorful food plan is key!**
  - **A**ntioxidants such as beta-carotene, lycopene, and vitamins A, C, and E, all protect cells from free radicals
  - There is a strong and **inverse relationship** between a high level of Mediterranean diet adherence and some chronic diseases because of its protective effects in reducing oxidative and inflammatory processes of cells and avoiding DNA damages, cell proliferation, and their survival, angiogenesis, inflammations and metastasis[3]
  - The Mediterranean diet is considered a **powerful and manageable** method to fight cancer incidence

1. Nutrition and Physical Activity During and After Cancer Treatment: Answers to Common Questions. American Cancer Society website. https://www.cancer.org/treatment/survivorship-during-and-after-treatment/be-healthy-after-treatment/nutrition-and-physical-activity-during-and-after-cancer-treatment.html#:~:text=There%20is%20strong%20evidence%20that,%2C%20prostate%2C%20and%20ovarian%20cancers
2. Survivorship Care for Healthy Living, 2020. National Comprehensive Cancer Network website. https://www.nccn.org/patientresources/patient-resources/guidelines-for-patients/guidelines-for-patients-details?patientGuidelineId=52.
3. Mentella CM, Scaldaferri F, Ricci C, Gasbarrini A, Miggiano GAD. Cancer and Mediterranean diet: a review. Nutrients. 2019;11(9):2059. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6770822/.

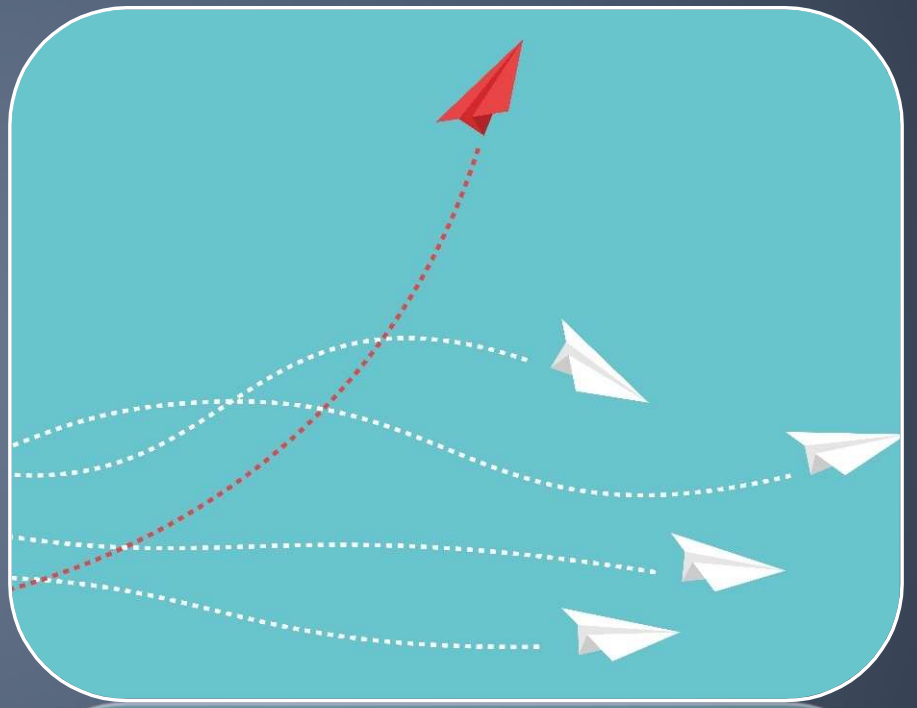
Physical Activity vs Exercise: *Definitions*

- **Physical activity:** any bodily movement produced by skeletal muscle that requires energy expenditure
- **Exercise:** a form of physical activity that is planned, structured, and repetitive bodily movement for the purpose of improving and/or maintaining health and physical fitness
- **Aerobic:** primarily stresses cardiovascular system. Typically involves large rhythmic movements (walking, running, cycling) sustained for greater than 10 minutes
- **Resistance:** primarily stresses musculoskeletal system; requires use of simple or compound movements against and external resistance (bodyweight, machines, dumbbells)



Benefits of Physical Activity for the Cancer Survivor

- **Reduce fatigue**: significant
- **Reduce depression**: significant
- **Reduce anxiety**: significant
- **Improve physical function**: significant
- **Improve health-related quality of life**: moderate
- **Improve sleep quality**: moderate
- **Decrease pain**: variable on cancer type and treatment



Campbell KL, Winters-Stone KM, Wiskemann J, et al. Exercise guidelines for cancer survivors: consensus statement from international multidisciplinary roundtable. Med Sci Sports Exerc. 2019;51(11):2375-2390.

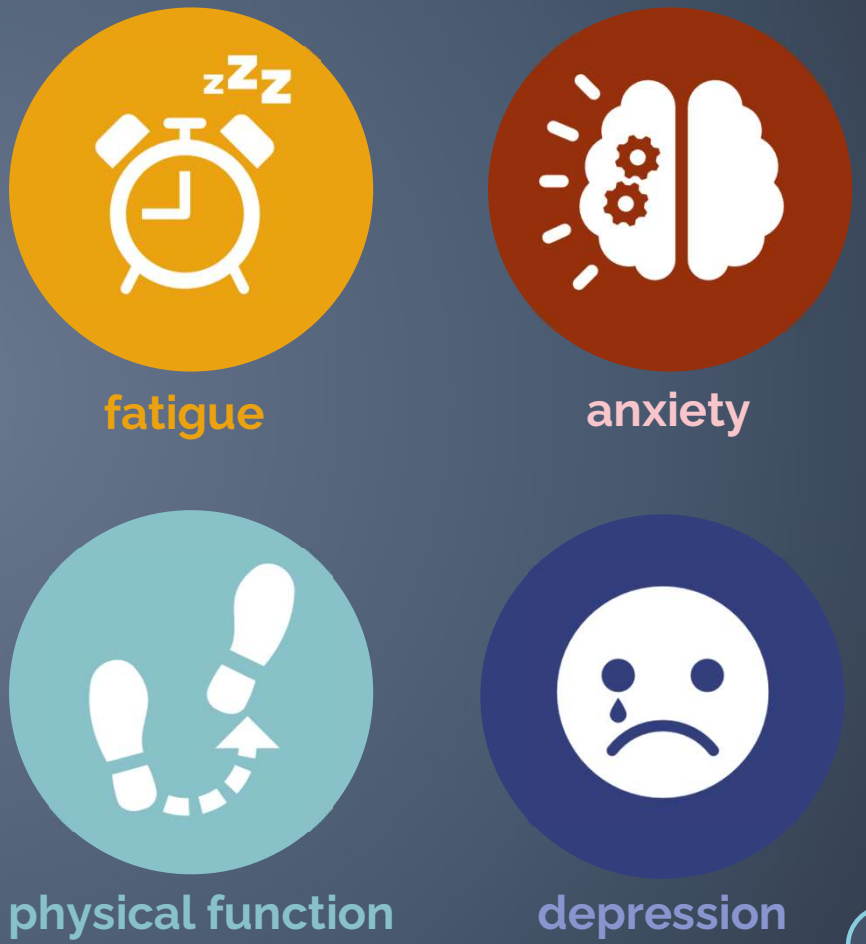
Exercise and Cancer Outcomes

- Over 3 main cancer types: **breast, prostate, colorectal**
- Patients who are regularly active have:
  - 21-35% lower relative risk of **cancer recurrence**
  - 28-44% reduced relative risk of **cancer-specific mortality**
  - 25-48% decreased relative risk of **all-cause mortality**

Cormie P, Zopf EM, Zhang X, Schmitz KH. The impact of exercise on cancer mortality, recurrence, and treatment-related adverse effects. Epidemiol Rev. 2017;39(1):71-92.

Exercise and Cancer: *Common Barriers and Side Effects*

- **Extreme fatigue**
- **Anxiety**
- **Depression**
- Peripheral neuropathy
- **Exercise intolerance**
- **Pain**
- Range of motion limitations
- Anemia
- Low white blood cell count
- Port or colostomy



Nutrition and Cancer: *Common Barriers*

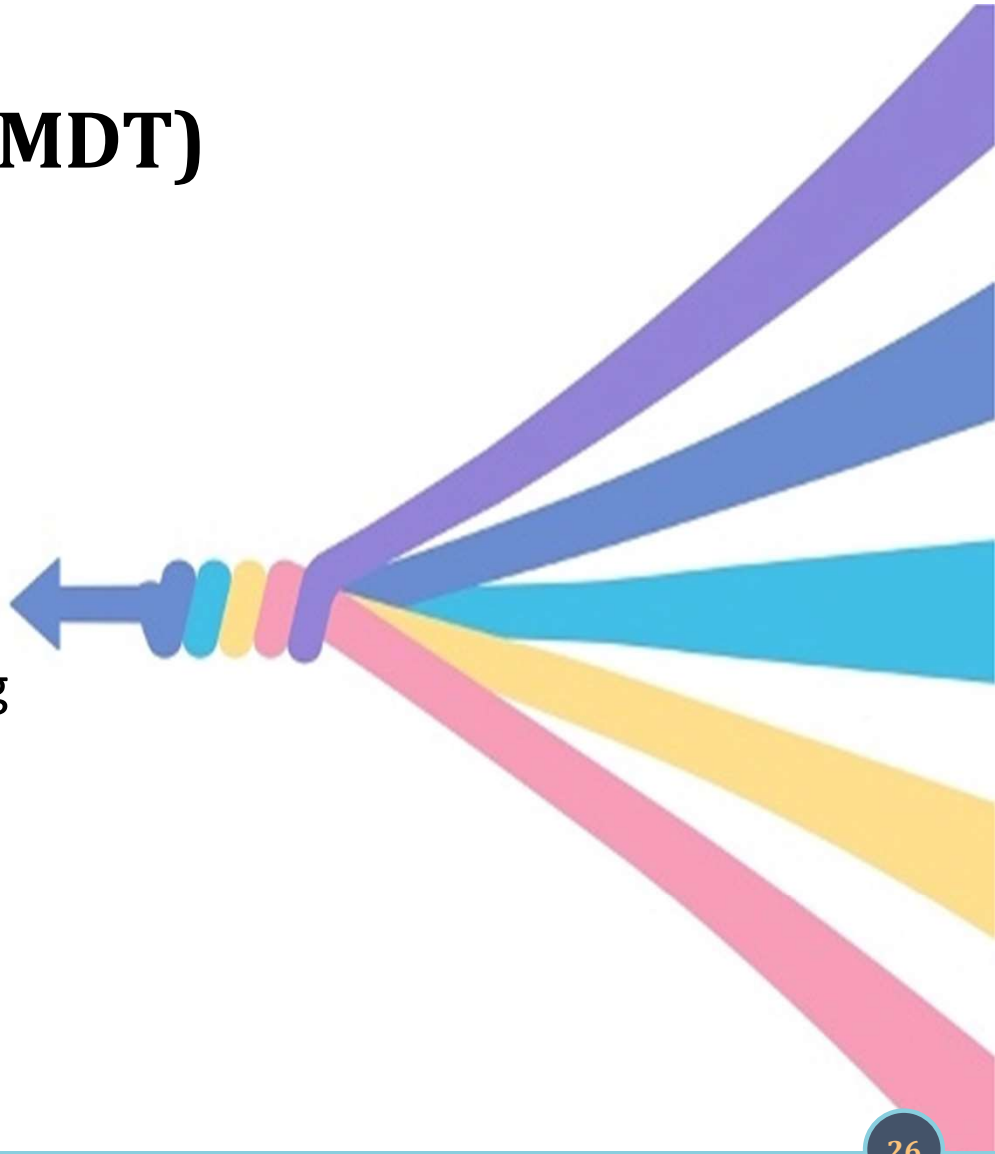
- Taste changes
- Odynophagia (painful swallowing)
- Dysphagia (difficulty swallowing)
- Xerostomia (dry mouth caused by a lack of saliva)
- Enteritis (inflammation of the intestines, usually associated with diarrhea)
- Diarrhea
- Constipation
- Fatigue

The Multidisciplinary Care Team

The Approach

A Multidisciplinary Team (MDT) Approach: *Why?*

- Oncology MDT: Defined as cooperation between different specialized professionals with the overarching goal of improving treatment efficiency and patient care
- Goal: to help clinicians meet the growing needs of cancer patients



MDT Approach and Cancer

Lung Cancer[1]

- An investigation of short-term and long-term survival outcomes of more than 4,000 people with lung cancer reveals that patients treated under a MDT model of care have significantly higher survival rates at one, three, five-, and 10-years post diagnosis vs patients treated with a standard or traditional model of care

Head and Neck Cancer[2]

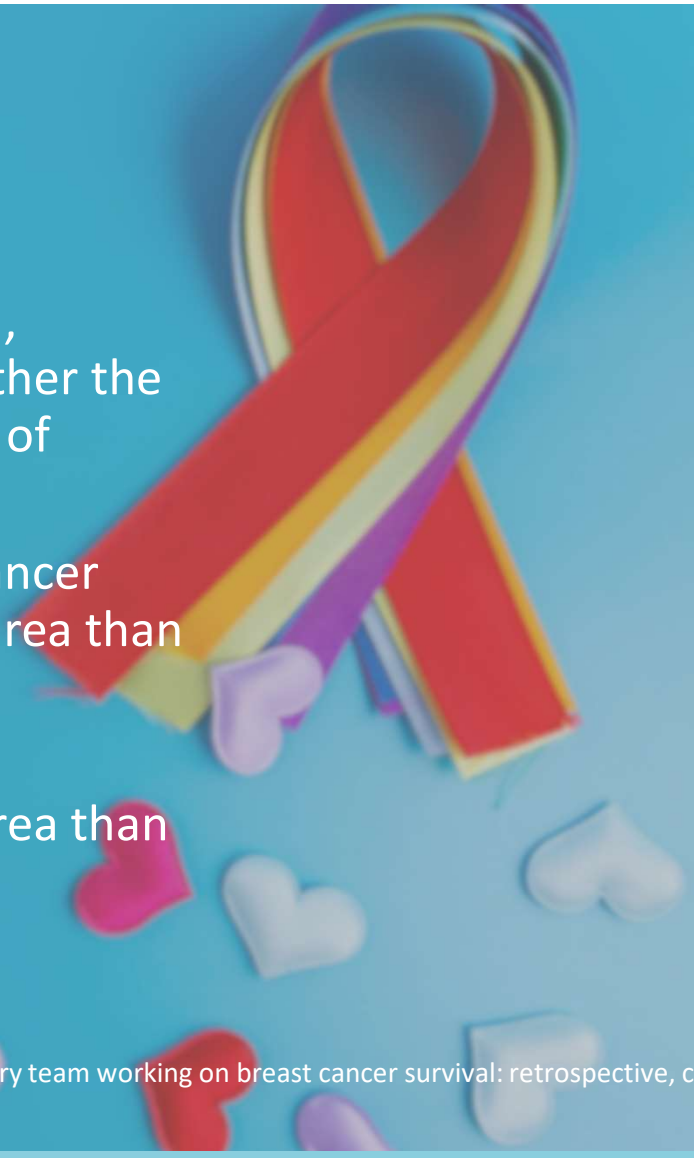
- Relevant structures of the upper aerodigestive tract involving functions such as speech, swallowing and breathing, among others, are common in head/neck cancers
- The impairment of these functions can significantly impact patients' quality of life and psychosocial status, and highlights the crucial role of specialized nurses, dietitians, psycho-oncologists, exercise physiologists, and social workers

1. Lung Cancer Survivor Rates Higher Using Multidisciplinary Care Model. Association of American Universities website. https://www.aau.edu/research-scholarship/featured-research-topics/lungcancer-survivor-rates-higher-using. Published September 12, 2018.
2. Taberna M, Moncayo FG, Jané-Salas E, et al. The multidisciplinary team (MDT) approach and quality of care. Front Oncol. 2020;10:85.

MDT Approach and Cancer

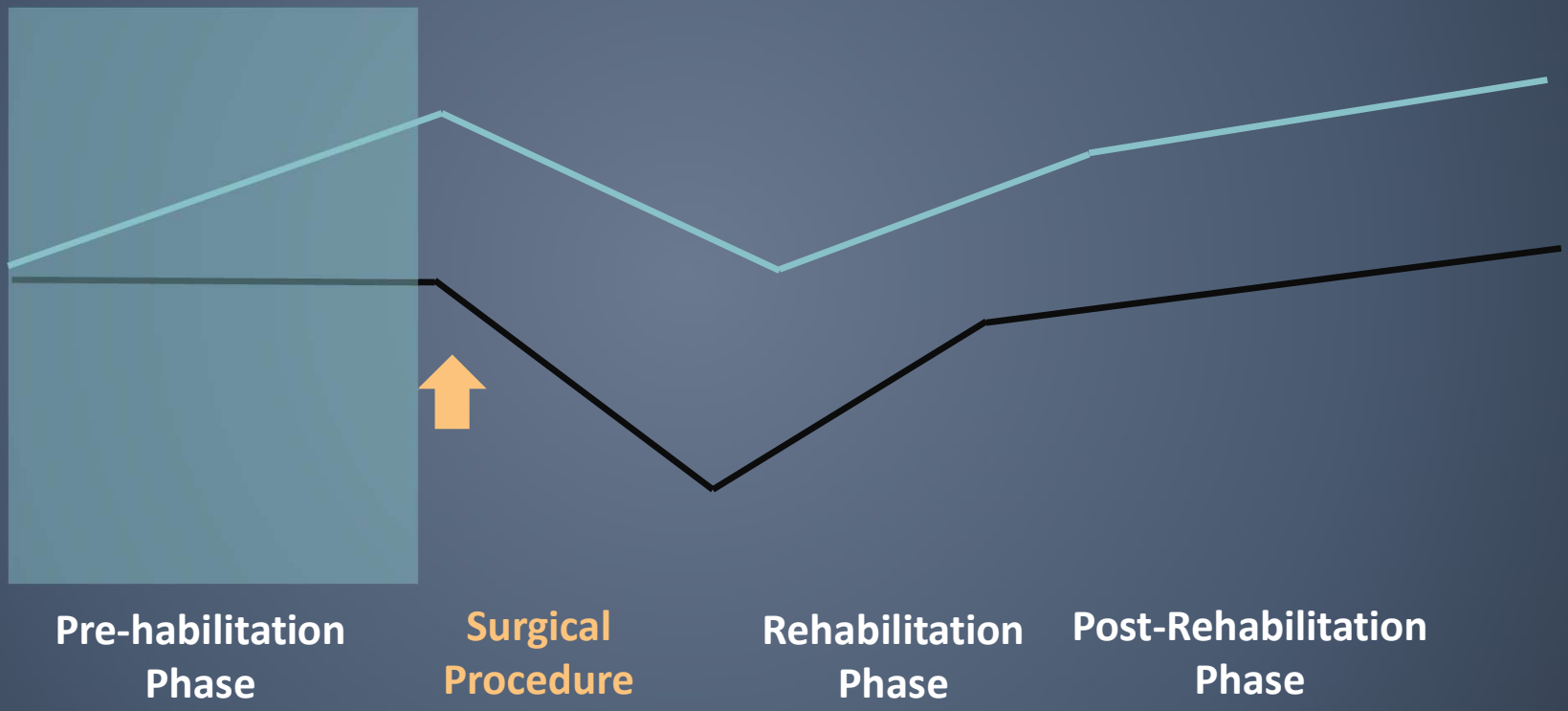
Breast Cancer

- A retrospective, comparative, non-randomized, interventional cohort study to determine whether the introduction of MDT care affected the survival of women with breast cancer
- Before the introduction of MDT care, breast cancer mortality was **11% higher** in the intervention area than in the non-intervention area
- After MDT care was introduced, breast cancer mortality was **18% lower** in the intervention area than in the non-intervention area



Kesson EM, Allardice GM, George WD, Burns JG, Morrison DS. Effects of multidisciplinary team working on breast cancer survival: retrospective, comparative, interventional cohort study of 13 722 women. BMJ. 2012;344:e2718.

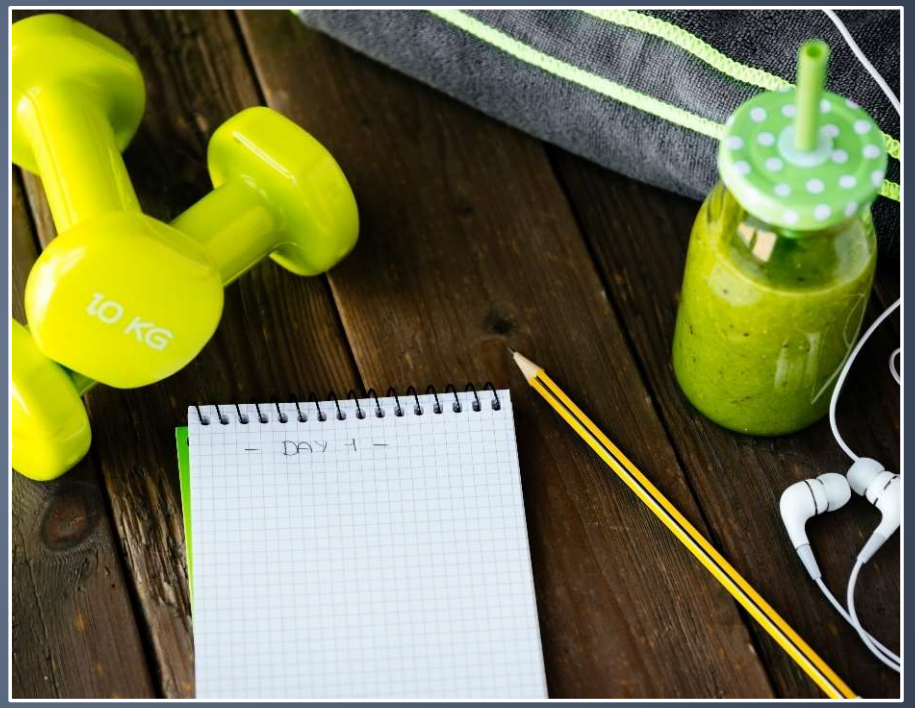
The "Why" and the Case for Prehab



MDT in Practice:

It looks like a program called “The Pink Program” or “Cancer Wellfit” at the Thomas F. Chapman Cancer Wellness Center in Atlanta, GA:

- ***Pink*** is a 12-week program that includes 3/week exercise classes, nutrition consultation, education, and stress reduction classes dedicated to **breast cancer survivors**
- **Involvement from MD, Navigator, Dietician, Exercise Physiologist, Social Worker (LCSW), Lymphedema specialist, and Peer Ambassadors.**
- Weekly support groups and cognitive-behavioral therapy, targeting stress management, relaxation training, and coping skills
- These may include pain management, smoking cessation, exercise, social, and nutrition components
- Cancer Wellfit is a program similar to ***Pink*** that includes **all cancer types** and is dedicated to long-term **lifestyle modification**



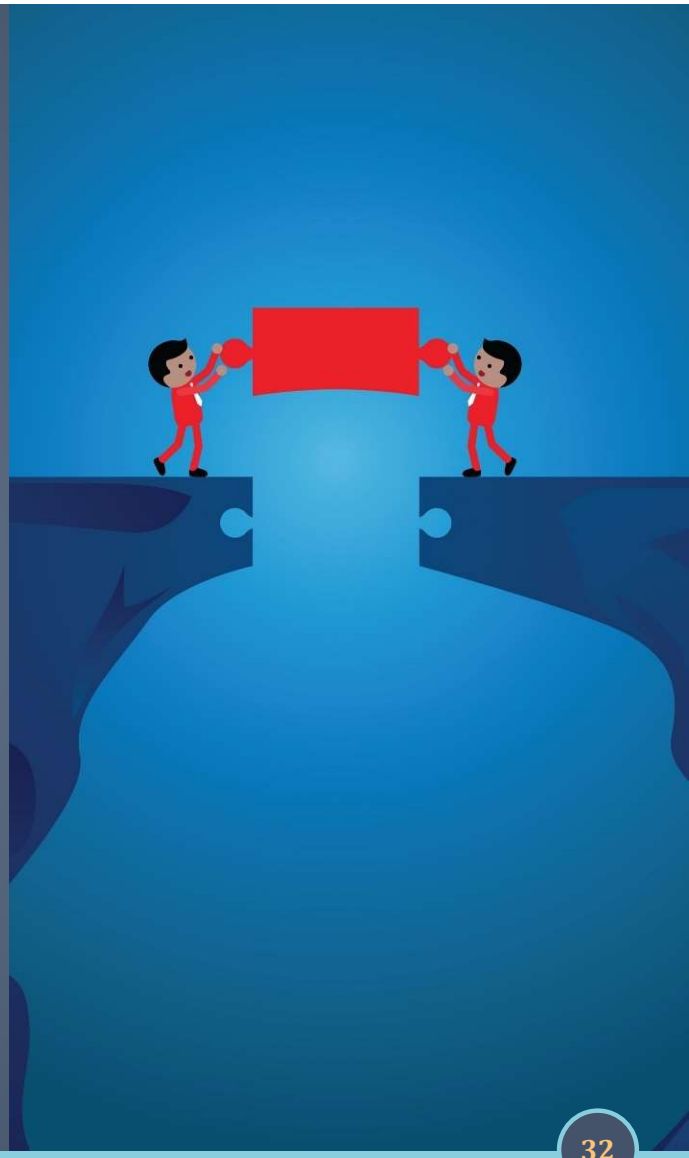
Exercise: *What's the "Gap?"*

- Despite substantial evidence supporting health benefits from regular physical activity, many clinicians **do not** screen or advise patients on physical activity
- Less than half of oncologists are regularly promoting physical activity
- Why?
  - Lack of training and education?
  - Lack resources/knowledge to refer to an exercise specialist?

Hardcastle SJ, Kane R, Chivers P, et al. Knowledge, attitudes, and practice of oncologists and oncology health care providers in promoting physical activity to cancer survivors: an international survey. *Support Care Cancer*. 2018

RDs and Exercise Experts: *Bridging the "Gap"*

- Help patients understand the **difference** between a successful and safe survivorship plan or one that is unsafe or inappropriate
- Understand that this is a **high-risk, immuno-compromised** population and yet they must eat well and exercise on their own
- Help educate **other medical professionals** about how body composition can be integrated into patient care
- Studies show **large-scale lifestyle modification** interventions in MNT and resistance exercise training may be necessary to provide a sufficient stimulus to prevent or slow the cascade of tissue wasting
- Recommend **early intervention** to prevent the deterioration of the patient's body composition



How to Create an MDT

- Awareness of value and resources – e.g., MD/APP do not know supportive programs exist)
- Rapport with MD and APP
- Champion
- Admin support
- Participation in Tumor Boards if available
- Establish referral pathway or embed within clinic
- Tracking and reporting clinical outcomes

Case Study

The MDT Approach in Action

Case Study

- 55-year-old female
- Newly diagnosed breast cancer patient, former Hodgkin's disease survivor
- Bilateral mastectomy and reconstruction followed by chemotherapy and one year of immunotherapy
- Participated in Pink Program, oncologic nutrition consultations, support groups, lectures
- Results:
  - Reduced anxiety
  - Improved outcomes in fitness and stamina, nutrition, sleep, sense of well being
  - Better tolerance of side effects of surgery, chemotherapy, and immunotherapy


BREAKOUT
SESSION
A

Putting It Into Practice: *Serving Your Patients*

Help your patients…

- Think outside the box with their treatment team, including exercise physiologists, lymphedema/pelvic floor physical therapists, social workers, outpatient physical therapists, dietitians, nurse navigators…
- Find an in-person or online survivorship program
- Remember: "cancer survivor" is someone who has been diagnosed with cancer, from the time of diagnosis *through the remainder of life… help your patients survive and thrive!*

Questions?

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