

# Incorporating Exercise Into the Cancer Treatment Paradigm

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**Background:** The benefits of exercise for patients with cancer are well documented. However, exercise is still not a standard of care for this population. Several factors contribute to the lack of exercise prescriptions for patients with cancer, including challenges posed by treatment-related side effects, lack of knowledge among healthcare providers and the laypeople, and inadequate resources.

**Objectives:** This article reviews the benefits of exercise in general and specifically to patients with cancer, discusses the specific challenges and considerations required in recommending exercise to this population, and provides specific recommendations for healthcare providers to incorporate exercise into treatment plans.

**Methods:** Using a case study exemplar, this article discusses the benefits and challenges to exercise while undergoing treatment for cancer and proposes specific solutions and recommendations.

**Findings:** Oncology practitioners can provide the opportunity for patients to safely engage in exercise with the appropriate resources and trained personnel using a successful model of delivering exercise to patients undergoing treatment for cancer. Exercise improves quality of life in all patients, including those with advanced-stage cancers and those actively receiving treatment.

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Marjorie, a 71-year-old married woman, had been diagnosed with advanced stage breast cancer. Marjorie also had severe chronic obstructive pulmonary disease (COPD). Following a hospitalization for COPD, she required oxygen 24 hours per day at 2.5 liters. Given her pulmonary status, radiation and surgery were not planned as part of the breast cancer treatment. Marjorie was receiving oral hormonal therapy. Accompanied by her husband, Marjorie arrived at FitSTEPS for Life® (FSFL), a community-based exercise program for patients with cancer, using a walker. The only exercise that she was able to perform that day was walking into the center. Her long-term goal was to “walk without huffing and puffing.” Marjorie required a wheelchair to return to the car for the drive home.

Unfortunately, Marjorie’s presentation is not atypical. Many cancer survivors are inactive older adults who have

comorbidities. Coupled with the fatigue, depression, and side effects related to treatment, all of which are commonly experienced by cancer survivors, this population presents unique challenges to exercise engagement. This article will (a) review the benefits of exercise in general and specifically to patients with cancer, (b) discuss the specific challenges and considerations required in recommending exercise to this population, and (c) provide specific recommendations for healthcare providers to incorporate exercise into treatment plans.

## Physiology of Exercise

Although exercise induces a host of beneficial metabolic effects, the following discussion is confined to its influence on the behavior of cancer cells. A burgeoning amount of