

# Physical Activity

## A feasibility study on exercise in men newly diagnosed with prostate cancer

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**BACKGROUND:** Physical activity (PA) has been shown to improve patient-centered care for cancer-related symptoms, treatment-related side effects, and health-related quality of life.

**OBJECTIVES:** This feasibility study aimed to explore PA preferences and changes in functional capacity and symptoms during a two-week self-prescribed PA intervention prior to treatment in men newly diagnosed with prostate cancer.

**METHODS:** Men newly diagnosed with prostate cancer were recruited from a community hospital, part of an academic comprehensive cancer center in the southeastern United States. An individualized PA intervention prescription was developed using baseline measures. Baseline and two-week measures consisted of functional capacity, PA participation, and symptom impact. Descriptive statistics and t tests were used.

**FINDINGS:** Thirteen men aged an average of 66.14 years (SD = 6.82) participated. Participants significantly improved functional capacity. Most common PAs were walking (n = 9) and yard work (n = 6).

### KEYWORDS

physical activity; prostate cancer; radiation therapy; quality of life; prehabilitation

### DIGITAL OBJECT IDENTIFIER

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AS ONCOLOGY TREATMENTS CONTINUE TO HAVE A SIGNIFICANT EFFECT on survivorship for most cancers, there has been increasing attention on quality-of-life issues presenting at the time of diagnosis and pretreatment, which is also known as prehabilitation (Raj et al., 2020). Cancer survivors have described declines in everyday function during and after completion of treatment as compared to pretreatment (Brick & Skidmore, 2020). Recent research indicates that moderate-intensity physical activities can be safely performed during treatment and can reduce treatment-related side effects, such as fatigue sleep disturbances, cognitive impairment, and nausea (Lukez & Baima, 2020). However, little is known about physical activity levels prior to treatment and whether promoting self-selected physical activities may improve functional capacity prior to treatment. The findings of the current study will address physical activity preferences in men newly diagnosed with prostate cancer and the feasibility of a pretreatment physical activity intervention.

In 2009, the American College of Sports Medicine (ACSM) expert panel on exercise recommendations for cancer survivors identified that exercise decreases the risk of many of cancers and may extend survival (Schmitz et al., 2009). Along with key oncology organizations, the ACSM established exercise guidelines for cancer survivors beginning at time of diagnosis (McTiernan et al., 2019). Since initiation of the 2009 guidelines, early research findings illustrate the benefits of exercise after completion of cancer treatment, such as reducing fatigue and improving sleep (Hirschey, Nyrop, & Mayer, 2020; McTiernan et al., 2019), which was reinforced across many cancer diagnoses and treatment modalities during treatment (Au et al., 2019). However, there was little information regarding the impact of physical activity prior to treatment and whether adults newly diagnosed with cancer would participate in physical activity. Therefore, the purpose of this feasibility study was to understand what physical activities were preferred by adults newly diagnosed with cancer and if participation prior to treatment was feasible.

A population of adults who often have more time to consider treatment options are those newly diagnosed with prostate cancer (National Comprehensive Cancer Network, 2021). Most men are diagnosed with prostate cancer at an age when they are reducing physical activities because of retirement and the effects of aging. Therefore, providing a physical activity intervention prior to initiation of cancer treatment may promote the sustainability of exercise beyond treatment completion and reduce long-term or late effects of treatment, particularly fatigue and sleep disturbances.