

# Exercise Guidelines for Adults With Cancer: A Vital Role in Survivorship

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Cancer survivors face many challenges as a result of their cancer diagnosis and treatment, most importantly the maintenance of physical well-being. Nurses and other health professionals strive to address the needs of cancer survivors, including providing appropriate health-promotion information for a physically active lifestyle. Cancer survivors are at greater risk for recurrence and for developing second cancers because of treatment effects, unhealthy lifestyle behaviors, or risk factors that contributed to the first cancer. In light of those concerns, guidelines aimed at understanding and preventing secondary disease, recurrence, and the late and long-term effects of treatment are essential.

Being physically active and maintaining a healthy weight can aid in the process of recovery, sustain quality of life, and improve survival after a cancer diagnosis (Doyle et al., 2006). More and more studies are supporting the benefits of starting or maintaining a program of regular physical activity after a cancer diagnosis (Bélanger, Plotnikoff, Clark, & Courneya, 2011; Courneya & Friedenreich, 2007, 2011; McNeely & Courneya, 2010; Schmitz et al., 2005). Many cancer survivors are highly motivated to seek information about physical activity to improve their responses to treatment, fitness, and quality of life.

The American College of Sports Medicine (ACSM) convened a roundtable in June 2009 to review the safety and efficacy of exercise training during and after adjuvant cancer therapy. The ONS Foundation was a cosponsor of the event, which brought together a team of clinical and research experts in cancer and exercise. Those experts concluded that exercise training is safe and improves physical functioning, quality of life, and cancer-related fatigue in several cancer survivor groups; the roundtable generated evidence-based physical activity guidelines for adult cancer survivors (Schmitz, Courneya, et al., 2010).

Patients with cancer may experience a range of therapeutic approaches, including surgery, radiotherapy, chemotherapy, and hormonal and targeted therapies. The

adverse effects of those treatments may be immediate (e.g., nausea associated with chemotherapy infusion), long-term (e.g., bone loss associated with endocrine therapies), or latent (e.g., arrhythmias or cardiomyopathies years after chemotherapy). Cancer treatments can adversely affect multiple physiologic systems and exercise tolerance. For example, breast cancer survivors experiencing fatigue, upper-extremity lymphedema, hot flashes, and arthralgia need individualized guidance for planned aerobic, resistance (i.e., weight training), and flexibility exercise. Cancer survivors may need to reduce the intensity or duration of recreational sports during some phases of the cancer continuum and carefully regulate their activity to a new level of satisfaction.

## Exercise Guidelines

The ACSM Exercise Guidelines for Cancer Survivors (Schmitz, Courneya, et al., 2010) integrate exercise recommendations for the general population from the

American Heart Association (Haskell et al., 2007) and the U.S. Department of Health and Human Services (Physical Activities Guidelines Advisory Committee, 2008). The American Cancer Society (ACS) makes recommendations for cancer survivors (Doyle et al., 2006), and clinical trials of exercise interventions provide additional evidence to support exercise for patients throughout the cancer experience. The key message for oncology nurses advising cancer survivors is that the exercise prescription should be individualized according to fitness level prior to cancer diagnosis, comorbidities, response to therapies, and adverse effects of treatments.

## Exercise Testing

Before starting an exercise program, cancer survivors are advised to have a general medical assessment to evaluate for peripheral neuropathies, musculoskeletal morbidities, and other potential effects of cancer treatments and other comorbidities. Pre-exercise assessment is indicated for patients who receive therapies

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