Breast Cancer Awareness

October is Breast Cancer Awareness Month as evident by pink garnishes sprinkled throughout landmarks of the pop-culture. It may seem like a limited awareness campaign, with many forms of cancer in existence, but for women there is significant relevance. According to the CDC statistics (which did not include skin cancer) cancers of the breast in the United States represents the most common cancer in women, regardless of race or ethnicity. Additionally, it is the most common cause of death from cancer among Hispanic women and the second most common cause of death from cancer among white, black, Asian/Pacific Islander, and American Indian/Alaska Native women. The most recent statistics available are from 2009; during that year 211,731 women and 2,001 men in the United States were diagnosed with breast cancer and 40,676 women and 400 men died (from breast cancer) that year.

Cancer is the most feared disease among surveyed populations due to its association with mortality, even though many people who get cancer survive it. When people think about combating cancer, exercise and diet rarely step to the forefront, despite their importance. Eating properly and exercising should be major parts of a comprehensive treatment plan. People with cancer who are actively involved in treatment experience numerous negative health outcomes. Both disease- and treatment-related adverse affects lead to low health-related quality of life (HRQoL). Consequently, HRQoL and its respective domains are considered important measures of cancer survivorship. In fact, the correlation exists both during, and after, the end of active cancer treatment.

It has been theorized that exercise interventions will help alleviate some of these adverse outcomes and even improve one’s ability to fight the disease. Interventions to promote exercise for those suffering from cancer are aimed at improving both subjectively and objectively quantifiable measures of HRQoL. Meta-analysis of trials conducted using participants who were currently undergoing active treatment for their cancer found that compared to controls, cancer patients who exercised as part of the treatment improved in HRQoL and physical function, and experienced a decrease in fatigue. The results suggest that exercise interventions compared with controls have a positive impact on overall HRQoL and certain HRQoL domains such as greater reduction in depression, sleep disturbances, and emotional well-being (EWB). While certain bias may be present, the consistency of findings on both types of measures (change scores and difference in follow-up scores) suggest a greater confidence in the benefits of exercise on cancer patients. Interestingly, when examining exercise effects by subgroups, exercise interventions had significantly greater reduction in anxiety for survivors with breast cancer than those with other types of cancer. Research methods differed across trials by mode of exercise; including walking by itself or in combination with cycling, resistance training, or strength training; resistance training alone; strength training alone; cycling alone and yoga alone.

According to authors, exercise seems to have these beneficial effects including physical functioning, role function, social functioning, and fatigue across varying periods of treatment. Additionally, the literature review suggested that moderate- or vigorous-intensity exercise provided more pronounced (positive) effects on HRQoL versus mild-intensity exercise programs such as yoga and walking. These findings may be further reaching as increasing evidence suggests that lifestyle after the diagnosis of cancer may affect prognosis. The importance of healthy behaviors seems to be relevant for increased chance for a positive outcome. Several studies have shown that common lifestyle factors associated with American living are not positively correlated to health but are correlated with recurrence of the disease. Western dietary intakes, obesity, sedentary living, metabolic syndrome, high serum levels of insulin, growth factors, and inflammatory cytokines after the

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diagnosis of cancer are associated with an increased incidence of recurrences (most studies have been on breast and colon cancer). Unfortunately, on the clinical side of management, there is currently very little attention paid to lifestyle and health behaviors as the emphasis is on treatment. Researchers suggest that there is a need to validate lifestyle intervention to improve clinician management and referral to prevent cancer recurrences. Becoming healthy can only serve as a positive outcome because there exists no contraindication to promoting moderate physical exercise, calorie appropriateness for weight management, and a dietary pattern consisting of fruits, vegetables, essential fats and lean proteins. In fact, the AICR/WCRF 2007 systematic literature review recommends cancer patients to adopt this type of healthy lifestyle recommended for the prevention of cancer.

Cancer survivors who engage in routine health behaviors demonstrate reduced risk of health problems, improved function and improved QOL. However, much like the general population, expecting previously sedentary cancer survivors to achieve the current guideline recommendations of at least 150 minutes per week of aerobic exercise along with two days of resistance training is probably an unrealistic goal. And similar to the general population, survivors who do engage in healthy behaviors identify that higher levels of adherence are associated with the successful implementation of common behavior change techniques. In a research trial investigating health compliance, respondents suggested that goal setting, self-monitoring and the use of programmatic structure learned in supervised exercise programs were transferable to non-supervised environments. The authors suggest that “as with all well-designed exercise programs in any context, prescriptions should be designed around individual capabilities.” Likewise it is important to understand subjective exercise tolerance when defining programmatic components such as frequency, duration, and intensity. Cancer patients and even survivors may demonstrate unique challenges based on their relative condition and mental state.

Another valid reason to promote healthy living for those currently or previously diagnosed with cancer is that cancer can also serve as a risk factor for other health related problems. Research has shown an association between breast cancer diagnosis and an increased prevalence of osteoporosis and falls. Although breast cancer patients have more contact with physicians than non-sufferers, survey respondents suggested that they were not more likely to discuss osteoporosis with their physician; nor were they more likely to be considered high risk for osteoporosis by physicians. Increased dialogue between physician and breast cancer patients pertaining to bone loss is needed. These findings underscore the importance of a comprehensive health plan for cancer patients and cancers survivors. Likewise, it demonstrates the increasing relevance of an improved quality of care to account for more than simply the common symptoms of the disease. General fitness recommendations still apply to cancer survivors and treatment programs for current cancer patients must emphasize physical activity and a quality diet to promote better health outcomes. Health providers and personal trainers should become more familiar with the overall physical needs of cancer patients and develop a better understanding of the mental aspects of the disease to better promote an increase in lifespan and quality.