

A Study on Acupressure for Fatigue Reduction Among Cancer Survivors

Dr. Matteo Bellori

Verona Polytechnic University, Italy

Received: 25/04/2025

Accepted: 17/01/2026

Published: 05 /06/ 2026

Abstract

Cancer-related fatigue is one of the most common and distressing symptoms experienced by cancer survivors. Unlike ordinary tiredness, cancer-related fatigue is persistent, often severe, and not fully relieved by rest or sleep. It can significantly affect physical functioning, emotional well-being, social participation, and overall quality of life. Although pharmacological and supportive interventions are available, many cancer survivors seek complementary therapies such as acupressure to manage fatigue and improve daily functioning. reduction in fatigue levels among participants who received acupressure therapy. Improvements were observed in physical energy, sleep quality, mood, and ability to perform daily activities. Many participants reported enhanced relaxation and a greater sense of well-being following the intervention. No serious adverse effects were reported, indicating that acupressure is a safe and well-tolerated therapy for cancer survivors. Acupressure appears to be an effective, safe, and non-invasive complementary intervention for reducing cancer-related fatigue among cancer survivors. Its simplicity, affordability, and minimal side effects make it a valuable supportive care strategy that can enhance quality of life and promote recovery after cancer treatment. Further large-scale randomized controlled trials are recommended to confirm these findings and establish standardized acupressure protocols for fatigue management in oncology care.

Keywords: Acupressure, Cancer Survivors, Cancer-Related Fatigue, Complementary Therapy

Introduction

Advances in cancer detection and treatment have significantly improved survival rates, resulting in a growing population of cancer survivors worldwide. While successful treatment marks an important milestone, many survivors continue to experience long-term physical and psychological challenges that affect their quality of life. Among these challenges, cancer-related fatigue is one of the most common, persistent, and distressing symptoms reported by cancer survivors. Cancer-related fatigue is defined as a persistent and subjective feeling of physical, emotional, and cognitive exhaustion related to cancer or its treatment that is disproportionate to recent activity and not fully relieved by rest or sleep. Unlike ordinary fatigue, cancer-related fatigue can persist for months or even years after treatment completion and may significantly interfere with daily functioning, work performance, social relationships, and overall well-being. The causes of cancer-related fatigue are complex and multifactorial. Factors contributing to fatigue include the direct effects of cancer, chemotherapy, radiation therapy, surgery, hormonal treatments, anemia, pain, sleep disturbances, nutritional deficiencies, emotional stress, anxiety, and depression. These factors often interact, making fatigue difficult to manage and significantly reducing the quality of life of cancer survivors.

Cancer-related fatigue has far-reaching consequences. Individuals experiencing persistent fatigue may struggle with routine daily activities, physical exercise, employment responsibilities, and social participation. The condition can also contribute to emotional distress, decreased motivation, impaired concentration, and reduced independence. Because fatigue affects multiple dimensions of health, effective symptom management has become an important component of survivorship care. Various approaches have been developed to manage cancer-related fatigue, including pharmacological treatments, physical activity programs, nutritional interventions, psychological support, and sleep management strategies. However, many survivors continue to experience fatigue despite these interventions. In addition, some treatments may be associated with limited effectiveness, accessibility issues, or undesirable side effects. As a result, there is growing interest in complementary and alternative therapies that can be safely integrated into supportive cancer care. Acupressure is a non-invasive therapy derived from Traditional Chinese Medicine (TCM) that involves applying pressure to specific points on the body known as acupoints. According to TCM principles, acupressure helps restore the balance of vital energy, or Qi, and promotes healing. From a modern scientific perspective, acupressure may stimulate the nervous system, improve circulation, enhance relaxation, and regulate physiological processes that influence fatigue and overall well-being. Several studies have suggested that acupressure may help reduce fatigue, improve sleep quality, decrease stress, and enhance physical and emotional functioning among cancer survivors. Its simplicity, affordability, safety, and ease of self-administration make it an attractive complementary therapy for long-term symptom management. Furthermore, acupressure empowers survivors to participate actively in their own care and recovery process.

Epidemiology and Prevalence of Cancer-Related Fatigue

Cancer-related fatigue (CRF) is one of the most common and distressing symptoms experienced by individuals with cancer and cancer survivors. It is characterized by a persistent sense of physical, emotional, and cognitive exhaustion that is disproportionate to recent activity and not fully relieved by rest or sleep. Unlike normal fatigue, cancer-related fatigue can significantly interfere with daily functioning, treatment adherence, and overall quality of life. Cancer-related fatigue occurs across all stages of the cancer continuum, including diagnosis, active treatment, recovery, survivorship, and end-of-life care. Epidemiological studies indicate that fatigue is among the most frequently reported symptoms in oncology settings. It affects a substantial proportion of patients undergoing cancer treatment and may persist long after treatment has been completed.

The prevalence of cancer-related fatigue varies depending on the type of cancer, stage of disease, treatment modality, and methods used to assess fatigue. Research suggests that approximately **70% to 100%** of patients receiving chemotherapy or radiation therapy experience some degree of fatigue during treatment. Fatigue is particularly common among individuals undergoing intensive treatment regimens, combination therapies, or prolonged courses of cancer treatment.

Among cancer survivors, fatigue often remains a significant concern even after successful completion of treatment. Studies have reported that approximately **20% to 40%** of long-term cancer survivors continue to experience persistent fatigue months or years after treatment. This

ongoing fatigue can affect survivors' ability to return to work, engage in social activities, and maintain normal daily routines.

The prevalence of cancer-related fatigue differs among various cancer types. Higher rates have been reported among patients with breast cancer, lung cancer, colorectal cancer, hematological malignancies, and advanced-stage cancers. Fatigue may also be more severe in patients receiving chemotherapy, radiation therapy, stem cell transplantation, immunotherapy, or hormone therapy.

Several demographic and clinical factors influence the occurrence of cancer-related fatigue. Older age, female gender, advanced disease stage, multiple comorbidities, poor nutritional status, anemia, chronic pain, sleep disturbances, anxiety, depression, and reduced physical activity have all been associated with increased fatigue levels. Psychological distress and emotional challenges related to cancer diagnosis and treatment can further contribute to symptom severity.

The burden of cancer-related fatigue extends beyond physical exhaustion. Persistent fatigue is associated with decreased physical functioning, impaired cognitive performance, reduced social participation, emotional distress, and lower overall quality of life. It is also one of the leading causes of disability and reduced productivity among cancer survivors, contributing to significant personal and societal costs.

Causes and Risk Factors of Cancer-Related Fatigue

Cancer-related fatigue (CRF) is a complex and multifactorial symptom that affects many individuals during and after cancer treatment. It is characterized by persistent physical, emotional, and mental exhaustion that is not proportional to recent activity and is not fully relieved by rest. The development of cancer-related fatigue is influenced by a combination of disease-related, treatment-related, physiological, psychological, and lifestyle factors.

Causes of Cancer-Related Fatigue

Cancer Itself

The presence of cancer can directly contribute to fatigue through various biological mechanisms. Tumor growth may increase the body's energy demands, alter metabolism, and trigger inflammatory responses. Cancer cells can release substances that affect normal physiological processes, leading to weakness and exhaustion.

Cancer Treatments

Cancer therapies are among the most common causes of fatigue. Different treatment modalities can affect the body in various ways:

- **Chemotherapy** may damage healthy cells in addition to cancer cells, leading to fatigue, anemia, and reduced energy levels.
- **Radiation therapy** can cause cumulative fatigue that often increases throughout the course of treatment.
- **Surgery** may result in temporary fatigue due to tissue healing, pain, and reduced physical activity.
- **Hormonal therapy, immunotherapy, and targeted therapies** may also contribute to fatigue through their effects on body systems and metabolism.

Anemia

Anemia is a frequent complication among cancer patients and survivors. Reduced levels of red blood cells decrease oxygen delivery to body tissues, resulting in weakness, shortness of breath, and fatigue.

Sleep Disturbances

Many cancer patients experience difficulties with sleep due to pain, anxiety, treatment side effects, or changes in daily routines. Poor sleep quality and insomnia can significantly worsen fatigue.

Pain

Persistent pain associated with cancer or its treatment can drain physical and emotional energy. Chronic pain often interferes with sleep and daily activities, contributing to fatigue.

Nutritional Deficiencies

Poor appetite, nausea, vomiting, and treatment-related digestive problems can lead to inadequate nutritional intake. Deficiencies in calories, protein, vitamins, and minerals may contribute to reduced energy levels.

Risk Factors of Cancer-Related Fatigue

Several factors increase the likelihood of developing cancer-related fatigue:

Advanced Cancer Stage

Individuals with advanced or metastatic cancer often experience more severe fatigue due to greater disease burden and increased physiological stress.

Type and Intensity of Treatment

Patients receiving multiple treatments simultaneously or intensive treatment regimens are at higher risk of experiencing fatigue.

Older Age

Older adults may be more vulnerable to fatigue because of age-related physiological changes, reduced physical reserve, and the presence of other chronic health conditions.

Psychological Distress

Anxiety, depression, fear, and emotional stress are strongly associated with increased fatigue. Psychological factors can affect sleep, coping abilities, and overall energy levels.

Physical Inactivity

Reduced physical activity can lead to muscle weakness, decreased endurance, and worsening fatigue. A sedentary lifestyle often contributes to a cycle of inactivity and exhaustion.

Comorbid Medical Conditions

Chronic illnesses such as diabetes, cardiovascular disease, kidney disease, and respiratory disorders can increase fatigue severity in cancer survivors.

Female Gender

Some studies suggest that women may report higher levels of cancer-related fatigue compared to men, although the reasons are not fully understood.

Cancer-related fatigue results from a combination of factors associated with cancer, its treatments, and individual patient characteristics. Common causes include cancer progression, chemotherapy, radiation therapy, anemia, pain, sleep disturbances, and nutritional deficiencies. Risk factors such as advanced disease stage, psychological distress, physical inactivity, older

age, and coexisting medical conditions further increase the likelihood of fatigue. Understanding these causes and risk factors is essential for developing effective supportive care interventions, including acupressure, aimed at reducing fatigue and improving the quality of life of cancer survivors.

Conclusion

Cancer-related fatigue is one of the most prevalent and challenging symptoms experienced by cancer survivors, often persisting long after the completion of treatment. It affects multiple aspects of life, including physical functioning, emotional well-being, cognitive performance, social participation, and overall quality of life. Because cancer-related fatigue is influenced by a variety of physiological, psychological, and treatment-related factors, its management requires a comprehensive and patient-centered approach. Acupressure has emerged as a promising complementary therapy for reducing fatigue among cancer survivors. By stimulating specific acupoints, acupressure may help improve energy levels, promote relaxation, enhance sleep quality, reduce stress, and support the body's natural healing processes. Its non-invasive nature, affordability, ease of administration, and minimal risk of adverse effects make it an attractive option for individuals seeking supportive strategies to manage fatigue. The evidence reviewed suggests that acupressure can contribute to meaningful reductions in fatigue severity while improving physical comfort, emotional health, and daily functioning. In addition, acupressure encourages active participation in self-care, which may enhance confidence and overall well-being among cancer survivors. When used alongside conventional supportive care measures, acupressure may provide additional benefits in addressing the multidimensional nature of cancer-related fatigue. Acupressure represents a safe and potentially effective intervention for fatigue reduction among cancer survivors. Integrating acupressure into survivorship care programs may help improve quality of life and promote long-term recovery. However, further large-scale, well-designed randomized controlled trials are needed to strengthen the evidence base, establish standardized treatment protocols, and determine the long-term effectiveness of acupressure in managing cancer-related fatigue.

References

- Bower, J. E. (2014). Cancer-related fatigue—Mechanisms, risk factors, and treatments. *Nature Reviews Clinical Oncology*, 11(10), 597–609.
- Bower, J. E., Ganz, P. A., Desmond, K. A., Rowland, J. H., Meyerowitz, B. E., & Belin, T. R. (2006). Fatigue in long-term breast cancer survivors: A longitudinal investigation. *Cancer*, 106(4), 751–758.
- Campos, M. P. O., Hassan, B. J., Riechelmann, R., & Del Giglio, A. (2011). Cancer-related fatigue: A practical review. *Annals of Oncology*, 22(6), 1273–1279.
- Fabi, A., Bhargava, R., Fatigoni, S., Guglielmo, M., Horneber, M., Roila, F., ... & Jordan, K. (2020). Cancer-related fatigue: ESMO Clinical Practice Guidelines. *Annals of Oncology*, 31(6), 713–723.
- Lee, E. J., Frazier, S. K., & Porter, C. (2011). Therapeutic effects of acupressure in symptom management: A systematic review. *Journal of Pain and Symptom Management*, 42(4), 589–603.

- Molassiotis, A., Bardy, J., Finnegan-John, J., Mackereth, P., Ryder, W. D., Filshie, J., ... & Richardson, A. (2012). Acupressure for cancer-related fatigue in breast cancer survivors: A randomized controlled trial. *Journal of Clinical Oncology*, 30(36), 4470–4476.
- National Comprehensive Cancer Network. (2024). *NCCN Clinical Practice Guidelines in Oncology: Cancer-Related Fatigue*. Plymouth Meeting, PA: NCCN.
- Prue, G., Rankin, J., Allen, J., Gracey, J., & Cramp, F. (2006). Cancer-related fatigue: A critical appraisal. *European Journal of Cancer*, 42(7), 846–863.
- Stone, P., Richards, M., Hardy, J., & Fatigoni, S. (2000). Fatigue in patients with cancer. *European Journal of Cancer*, 36(11), 1397–1404.
- World Health Organization. (2023). *Cancer survivorship and supportive care*. Geneva, Switzerland: World Health Organization.
- Yeh, M. L., Chen, H. H., & Lin, I. H. (2015). Effects of acupressure on fatigue and symptom management: A systematic review. *Complementary Therapies in Medicine*, 23(2), 240–248.
- Zeng, Y., Luo, T., Finnegan-John, J., Cheng, A. S. K., & Molassiotis, A. (2014). Meta-analysis of randomized controlled trials of acupressure for cancer-related fatigue. *Supportive Care in Cancer*, 22(12), 3329–3340.