

# Cancer Fatigue: Diagnosis, Prevention, Treatment Options

Dr. Nilo Gardin, MD

*Practice of Dr. Nilo Gardin, São Paulo, Brazil*

## **Definition:**

Cancer-related fatigue (CRF) can be defined as a subjective and persistent sensation of a decrease in strength or performance, tiredness, lack of energy or motivation, and difficulty in concentration - all related to cancer or cancer treatment. Three aspects should be considered: It is not proportional to recent activity; there is no relief to be gained from the usual energy recovery strategies; and it leads to a decreased ability to perform normal tasks. CRF may be present before a cancer diagnosis, and it may persist for a long time after the end of treatment. Often, fatigue is a symptom of a pre-cancerous condition, that is, it is present before the onset of cancer, according to anthroposophic concepts.

## **Importance:**

Fatigue is the most distressing symptom associated with cancer and its treatment (according to patients' reported perceptions), more distressing even than pain or nausea/vomiting (which can generally be managed using medications). CRF is also one of the most common symptoms 57-90% in cancer patients under palliative care.

## **Causes and associated factors:**

Some factors may cause or contribute to CRF such as pain, sleep disorders, anemia, nutritional deficits, sedentary lifestyle, medications, alcohol/substance abuse, emotional distress (depression, anxiety), comorbidities (diabetes, hypothyroidism etc.).

## **Treatment options:**

*Non-pharmacological interventions:* Energy conservation, sleep care (quantity/quality, sleep hygiene), daytime naps, diet, physical activity, acupuncture, rhythmic massage, yoga, muscle relaxation, mindfulness, reflexology, music therapy, psychosocial intervention, educational interventions. *Pharmacological treatment:* Treatment of reversible causes (anemia, depression, sleep disorders, pain etc.) and the specific treatment of mistletoe therapy (with appropriate doses and time of use) has shown the best results for CRF treatment and prevention, according to several studies (including randomized controlled studies) as well as the author's experience. Other, albeit less effective, drug options include methylphenidate, modafinil, corticosteroids, and L-carnitine. As a complement to mistletoe therapy for CRF, we find *Helleborus niger*, *Prunus spinosa* and *Ferrum sidereum*.

## **CRF and autonomic regulation (aR):**

A questionnaire developed by Kröz et al., based on questions proposed by Rudolf Steiner, which measures the aR, showed a moderate to strong inverse correlation to CRF. Based on the aR score, the starting dose and frequency of mistletoe therapy could be determined.