

# Why am I so Tired? Cancer Related Fatigue

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# Cancer Related Fatigue (CRF)



- \* Significantly different in quality and severity
- \* Unrelieved by sleep or rest
- \* Affects normal every day function including;
  - \* Physical function
  - \* Social function
  - \* Emotional function

Often resolves after treatment but may continue for months or years after treatment finishes

# Diagnosis of Cancer Related Fatigue

Continuous and most likely caused by cancer and accompanied by;

Need for rest (excessive)

Muscle heaviness and weakness

Trouble concentrating

Emotions change easily

Difficulty recovering after exertion



# ICD-10 Cancer Related Fatigue (nearly every day for at least 2 weeks)

1. Complaints of generalized weakness, limb heaviness.
  2. Diminished concentration or attention.
  3. Decreased motivation or interest to engage in usual activities.
  4. Insomnia or hypersomnia.
  5. Sleep as unrefreshing or nonrestorative.
  6. Need to struggle to overcome inactivity.
  7. Marked emotional reactivity (e.g., sadness, frustration, or irritability) to feeling fatigued.
  8. Difficulty completing daily tasks attributed to feeling fatigued.
  9. Perceived problems with short-term memory.
  10. Postexertional fatigue lasting several hours.
1. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

# Cancer Related Fatigue Factors

Treatment type

Stage of disease

Time since completing therapy

Clinical factors ( i.e. other diseases)

Demographic factors (i.e. age)

# Cancer Related Fatigue in Treatment

## Chemotherapy

Most severe in first 3 days after chemotherapy and then gradually improves before next cycle

## Radiation Therapy

Fatigue is often cumulative with the peak occurring after radiation is completed

## Biologic Response Modifiers

Severe fatigue is mostly universal with Interleukin, Interferon

- \* Few studies have been done regarding fatigue and molecularly targeted therapy

- \* No consistency between variables such as dose, radiation dose or time since treatment was completed

# Other factors that can cause fatigue

- \* Depression or anxiety
- \* Underlying disease
- \* Treatment
- \* Anemia
- \* Low thyroid
- \* Adrenal insufficiency
- \* Low testosterone level
- \* Infection
- \* Malnutrition

# Other factors that can cause fatigue

- \* Depletion of vitamins ( B1, B6 and B12)
- \* Electrolyte disturbances such as low calcium, magnesium, phosphorus)
- \* Heart, liver or kidney dysfunction
- \* Deconditioning
- \* Inflammation
- \* Medication side effects (pain medicines, anti anxiety agents or anti nausea medicines)
- \* Other symptoms such as pain or shortness of breath
- \* Sleep disturbances

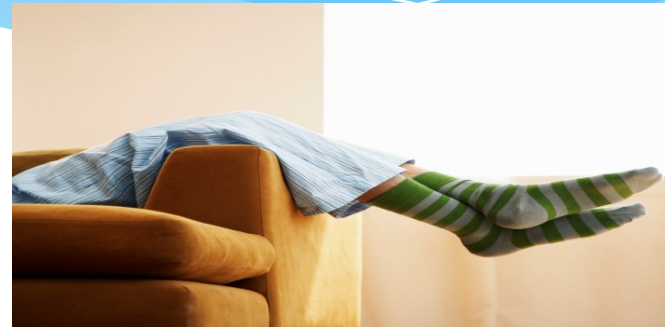


# Theories of CRF

- \* Proinflammatory cytokines
- \* Serotonin dysregulation
- \* Disturbed sleep
- \* Altered energy metabolism
- \* Neuroendocrine regulation

# Assessment of Fatigue

- \* Identification is key
- \* Detailed evaluation
- \* Evaluate severity
- \* Interventions being used
- \* Medications
- \* Other contributing factors
- \* Periodic screening throughout treatment and after to include;
  - \* Sensory (fatigue, severity, persistence)
  - \* Physiologic (leg weakness, decreased concentration)
  - \* Performance (how much does it affect you)



# Pharmacologic Measures for CRF

## Minimal Effect

- \* Paroxetine
- \* Sertraline
- \* Donepezil

## Possible Benefit

- \* Paroxetine for treating fatigue and hot flashes, also effective for depression
- \* Methylphenidate a psycho stimulant
- \* Antidepressants such as bupropion, venlafaxine had improvement in fatigue but more studies are needed
- \* Modafinil (provigil)
- \* Levocarnitine supplementation

# Evidence based interventions for CRF

- \* Treatment should be individualized
- \* Good assessment
- \* Balanced diet that includes calories, protein, carbohydrates, fat, minerals, vitamins
- \* Good fluid intake
- \* Balance of rest and activity
- \* Attention restoring activities such as music or pleasant distractions such as natural environment (water, mountains, flowers)



# Exercise for CRF

Beneficial in fatigue

Studies include walking, cycling, swimming, resistive or combined exercise

Type, intensity and length of exercise is not known



# Psychoeducational Measures for CRF

- \* Education and psychological support are beneficial
  - \* Anticipation about fatigue
  - \* Tailored recommendations to include increased activity and exercise
  - \* Motivational activities aimed at self care and coping
  - \* Counseling
  - \* Social support

# Psychoeducational Measures for CRF

Cognitive behavioral interventions

relaxation

sleep strategies

avoid long or afternoon naps

limit time in bed to sleep and sexual activities

consistent time to lie down and get up

avoid caffeine

avoid stimulating activity in the evening

reduce emotional arousal before bed

# Sleep

- \* Identify worries and fears
- \* Plan for activities while awake
- \* Avoid late heavy meals (snack is ok)
- \* Room temperature



# Sleep

- \* Consider white noise machine
- \* Pre bed or nap time rituals-reading, music, comfort measures
- \* Pet therapy
- \* Eliminate a bedroom clock
- \* Incorporate some complementary therapies

# Energy Conservation and Activity Management for CRF

- \* Rearrange your environment
- \* Plan Ahead
- \* Prioritize
- \* Alternate activity with rest

# Complementary Therapies for CRF

- \* Yoga
- \* Relaxation
- \* Mindfulness based stress reduction
- \* Acupuncture
- \* Expressive writing
- \* Progressive muscle relaxation
- \* Massage
- \* Music

# Complementary Therapies for CRF (continued)

- \* Many are self management, inexpensive and can be done at home or on the road
- \* Aromatherapy
- \* Lavender foot soaks
- \* Reflexology
- \* Yoga
- \* Tai chi
- \* walking

# Expected Results

- \* Slow the worsening of fatigue severity, distress and interference with treatment



# What Patients and Families should know

- \* The characteristics, pattern of onset, duration and consequences for fatigue
- \* Plan for self management
- \* Individualize plan according to age, condition and fitness level-can still do gently exercise
- \* Refer to physical therapy or rehabilitation
- \* Keep a log or diary

# What else can we do?

- \* Establish realistic goals
- \* Establish activities and priorities within limits
- \* Balance rest and activity
- \* Do more during “better energy” periods
- \* Ensure safety
- \* Physical therapy
- \* Plan walks with areas to sit down
- \* Pets

# Education

- \* Increased fatigue is normal in worsening disease
- \* Look for other symptoms such as sadness or fear
- \* Treat other symptoms
- \* Incorporate massage, relaxation, aromatherapy and counseling





Thank You