

# Feeling Good Again

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# Challenges to wellness




 Fatigue

 Lymphedema


 Chemotherapy related peripheral neuropathy

# Fatigue

# Common Questions

-  Is this Cancer Related Fatigue (CRF)?
-  What causes CRF?
-  Can CRF be prevented or reduced?

# Is this CRF?

 “Feelings of tiredness, weakness, and/or lack of energy” *Bower JE, 2006*

Cancer-related fatigue is a distressing persistent subjective sense of physical, emotional and /or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning.

*National Comprehensive Cancer Network, 2009*

# International Classification of Disease ~ 10 CRF Criteria

- ⦿ Diminished energy
- ⦿ Increasing need for rest
- ⦿ Limb heaviness
- ⦿ Diminished ability to concentrate
- ⦿ Decreased interest in engaging in normal activities
- ⦿ Sleep disorder
- ⦿ Inertia
- ⦿ Emotional lability due to fatigue
- ⦿ Perceived problems with short-term memory
- ⦿ Postexertional malaise exceeding several hours

# CRF is experienced in many ways

 Trouble concentrating/calculating

- *“My memory is shot”*
- *“I’m transposing important numbers”*

 Increased desire to sleep

- *“I just want to go back to bed”*

 Exhaustion excessive for the level of exertion

- *“Going a block to get groceries wipes me out”*

 Reduced capacity for activity

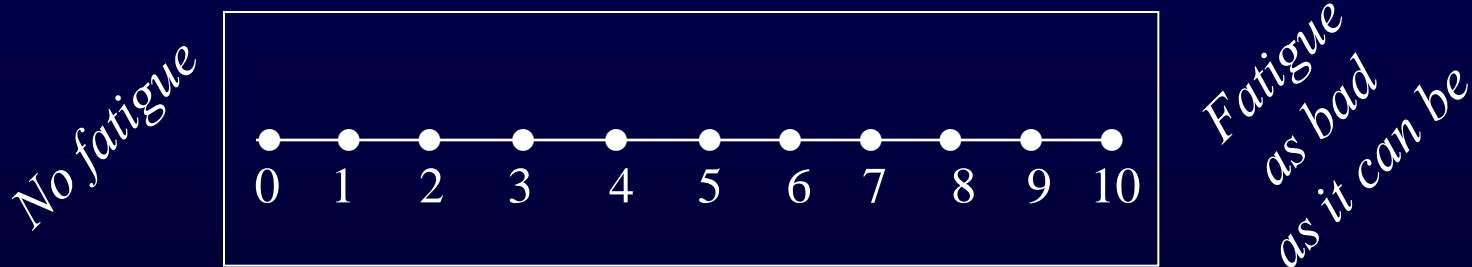
- *“My legs feel like lead”*

# CRF is common and persistent

- 🎗️ 33% of disease free survivors report > 2 weeks of “fatigue” per month *Cella D, 2001*
- 🎗️ All cancer types affected *Andrykowski MA 1998, Bower JE 2000 & 2006, Servaes P 2002*
- 🎗️ 1 in 3 cancer survivors has CRF *Bower JE 2000, Lindley C 1998*



# When is CRF mild, moderate, or severe?







 1~3 = Mild CRF

 4~7 = Moderate CRF

 8~10 = Severe CRF

# Moderate & Severe CRF: An Important Problem

-  Causes disability *Given CW 1994, Kurtz ME 2994, Dodd MJ 2001, Brown DJ 2005, Cella D 2008*
-  Undermines quality of life *Ferreira KA, 2008*
-  Interferes with patients' & survivors' capacity to work *Curt GA 2000*
-  Burdens caregivers *Janda M, 2008*

# What causes CRF?

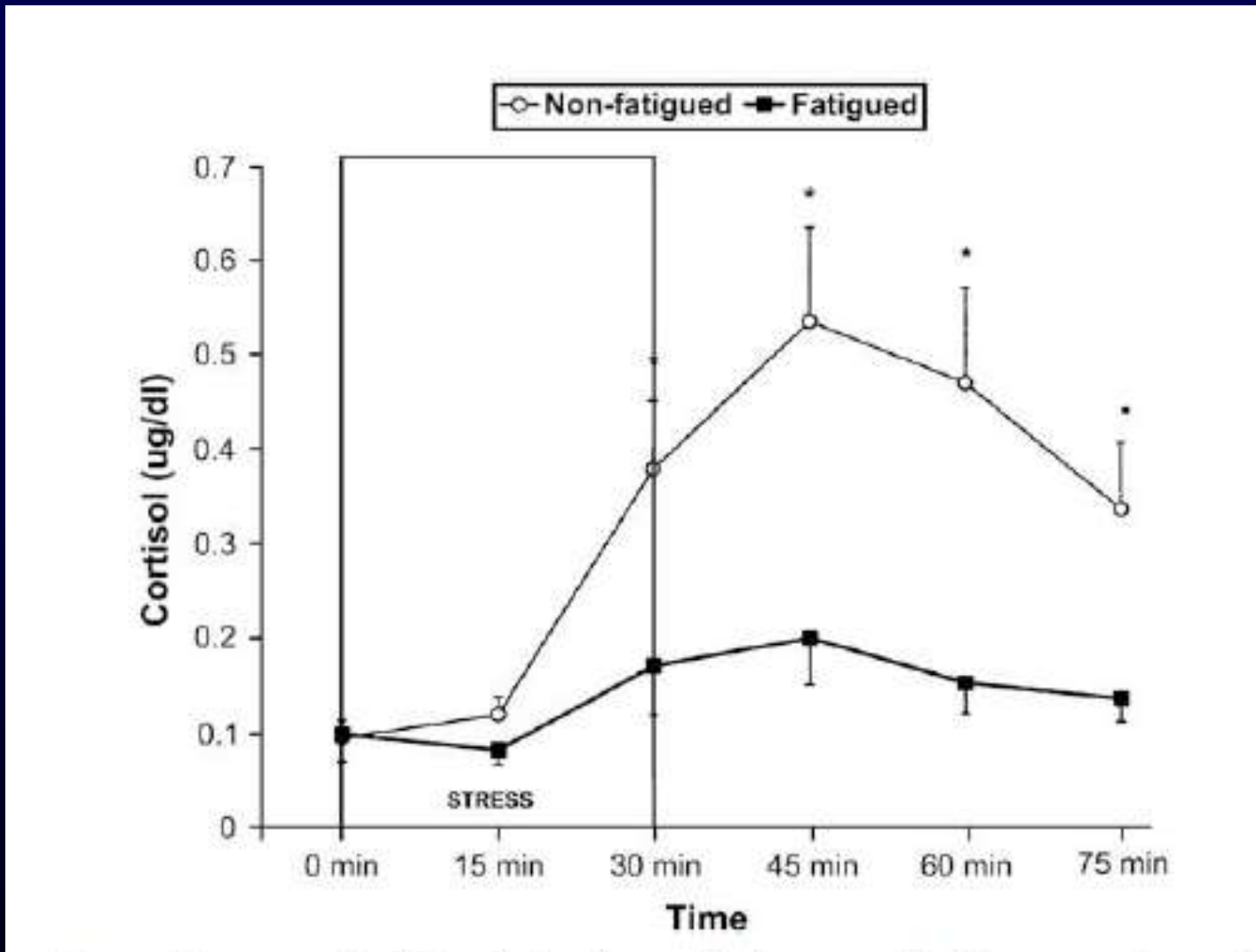
## Association $\neq$ causation

- Depression *Jacobsen PB 2003*
- Pain *Bower JE 2000, Wagner LE 2004*
- Hot flashes *Bower JE 2006*
- Poor sleep quality and insomnia *Bower JE 2000*
- Emotional stress
  - Low household income *Bower JE 2000 & 2006*
  - Fear of recurrence *Bower JE 2006*

# Changes in cancer survivors with CRF

 Reduced stress response *Bower JE 2005*

 Inflammation *Bower JE 2002, Gerber L 2010*



*Bower JE, Ganz PA, Aziz N. Altered cortisol response to psychological stress in breast cancer survivors with persistent fatigue. Psychosom Med 2005;67(2):277-80*

# Inflammation

 Turned on and can't shut off *Gerber L 2010*

- Cytokines – “protection” molecules
- Physical activity *Zanthy NE 2010*
- Fatty tissue *Bourlier V 2009*

# Can CRF be prevented or reduced? Take it seriously

 Often improves after treatment

 With a multi-modal approach

CRF can be:

- significantly reduced
- avoided



# Sleep

🎗 Patients with “high CRF” are more likely to:

*Olders H 1999*

- be insomniac
- arise later
- nap more

🎗 43% of cancer patients meet insomnia criteria *Palesh OG 2010*



# Sleep

- ⦿ Encourage “good” sleep hygiene
- ⦿ Minimize potential sleep disturbances
  - Pets
  - Snoring spouses...
- ⦿ Control nighttime pain
- ⦿ Sleep medications may be beneficial

# Reduce Stress

 Many techniques are beneficial

- Stress management *Fawzy FI 1990, Jacobsen PB 2002*
- Mindfulness training *Specia M 2000*
- Coping skills and problem solving training  
*Fawzy FI 1990, Telch CF 1986*
- Cognitive behavioral therapy *Gaston-Johansson F 2000*

# Can medications help?

## Medication to increase arousal

- Ritalin (methylphenidate)
- Provigil (modafinil)

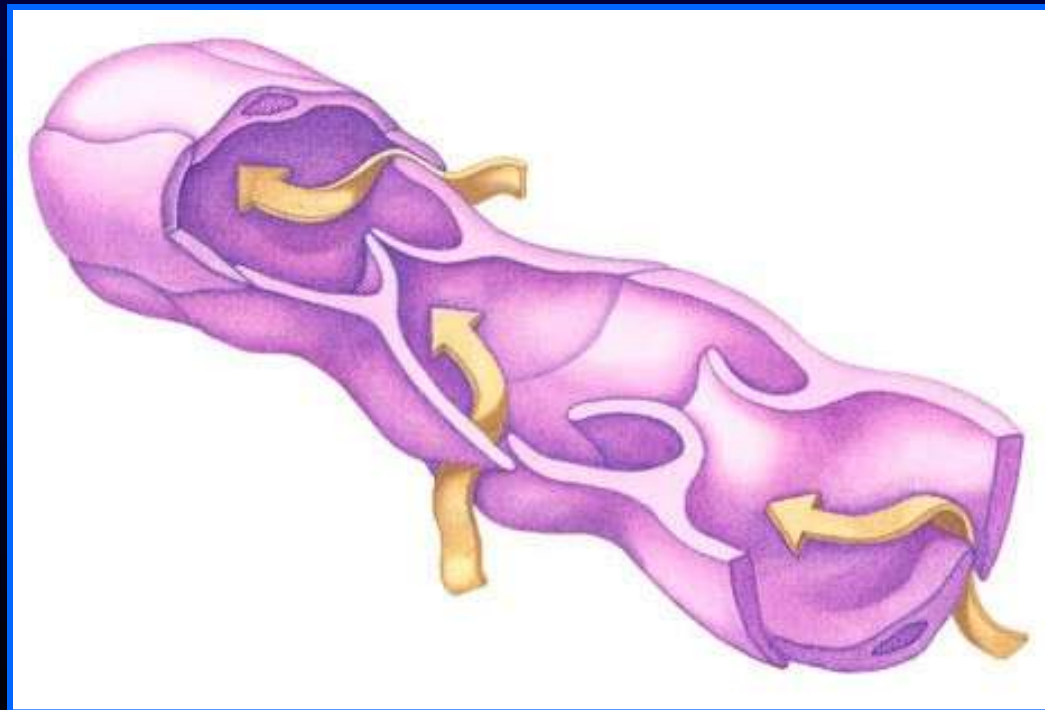
Remain or  
become  
physically  
active





# Lymphedema

# What does the lymphatic system do?

- 🎀 Solid waste removal
- 🎀 Immune surveillance



# What happens in lymphedema?

- 
- ⌘ Build up of solid waste
  - ⌘ Inflammation
  - ⌘ Scarring = “fibrosis”
  - ⌘ Further lymphatic obstruction
- 

# Treatment:

## Complex Decongestive Therapy

### Phase I – Reductive

- Manual lymphatic drainage (MLD)
- Short stretch bandaging
- Exercise
- Skin Care
- Education in self management

### Phase II – Maintenance

- Daytime compression garment
- Nighttime bandaging OR alternative compression devise
- MLD as needed
- Exercise



1.



2.



3.



4.



# Compression Garments



# How to find a lymphedema therapist?

 <http://www.clt-lana.org/>

 <http://www.lymphnet.org/>

 <http://www.vodderschool.com/>

 <http://www.klosetraining.com/>

# Chemotherapy induced peripheral neuropathy

# Chemotherapy induced peripheral neuropathy

- ⦿ Associated with platin and taxane exposure
- ⦿ Generally improves after treatment
  - But... not always
- ⦿ Medications
  - Venlafaxine Durand 2012

# Treatment

## Medications

- Oral venlafaxine *Durand 2012*
- Topical Baclofen, amitriptyline, and ketamine in organogel *Barton 2011*

## Desensitization techniques

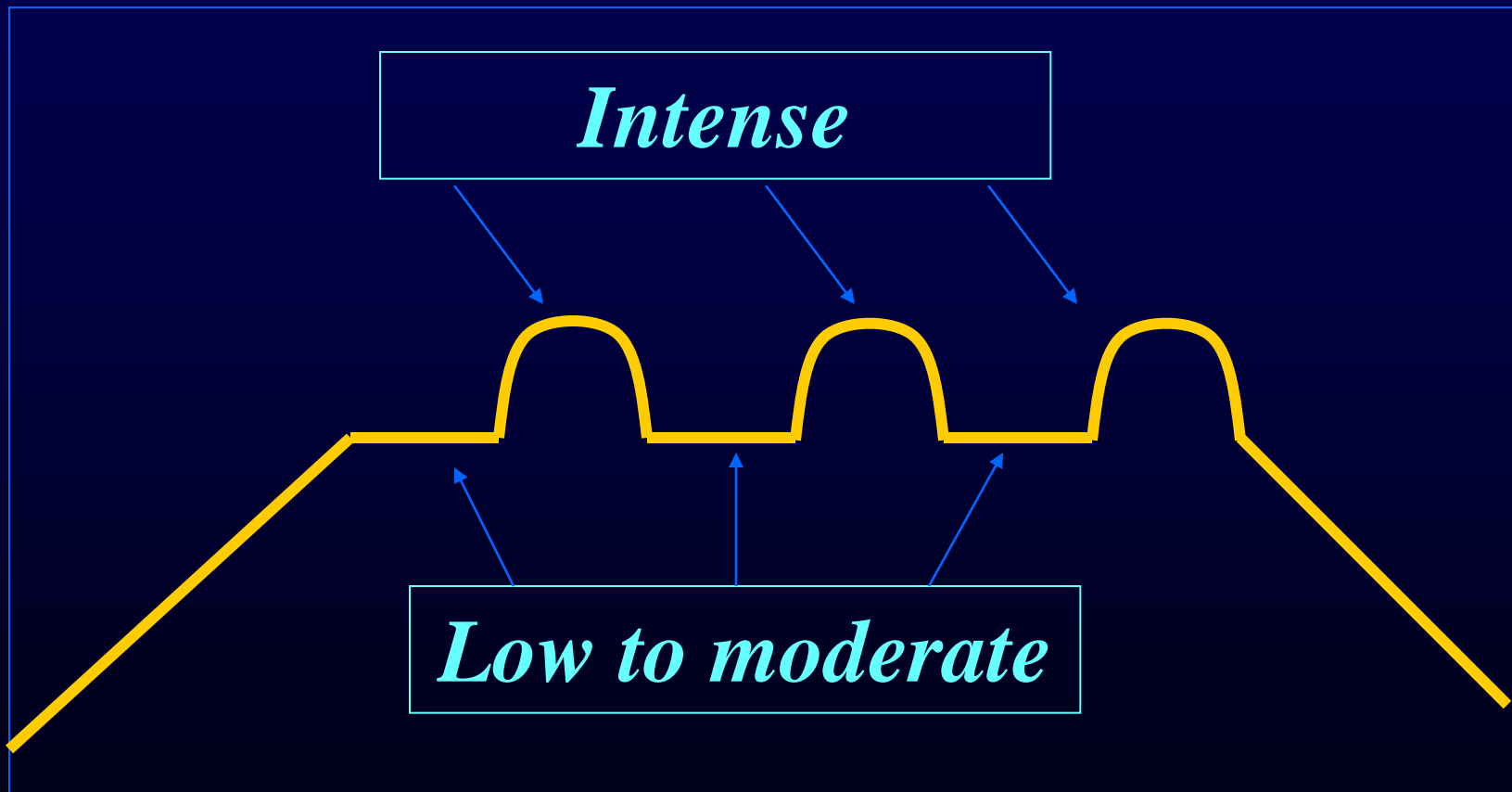
## Acupuncture *Schroeder 2012*

## “Scrambler” therapy

# Physical Activity

# Interval Training

**Level of Exertion**



**Time**



# Pain $\neq$ Gain

🎀 Gentle, moderate exercise ↓ inflammation

*Zanchi NE 2010*

🎀 Overly aggressive exercise ↑ inflammation

🎀 Very gradual strength training:

- Is safe *Ahmed R 2006, Schmitz 2010*
- May improve lymphedema *Schmitz 2009*

# What about yoga?

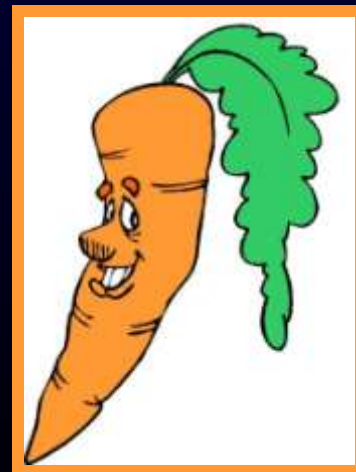
## Integrative approaches to exercise

- Pilates
- Yoga
- Tai Chi



# Tips for Success

-  Schedule time
-  Establish Goals
-  Identify sources of guidance and support
-  Make it fun...
-  Be patient
-  Give yourself a carrot



**Thank you for your time &  
attention!**