RECLAIMING VITALITY
FIGHTING FATIGUE IN CANCER SURVIVORSHIP

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Disclosures

- Incyte scientific advisory board, speaker bureau
Objectives

- To recognize what cancer related fatigue is.
- To discuss the origin of cancer related fatigue.
- To appreciate the incidence of cancer related fatigue.
- To discuss strategies to overcome cancer related fatigue and to...

**RECLAIM YOUR VITALITY!**
What is Fatigue?

- Described as a mental or physical state of being tired or weak.
What is the Origin of Fatigue?

- Sleep disorders
- Activity level
- Malnutrition
- Pain
- Anemia

Emotional distress
- Depression
- Anxiety

Noncancer comorbidities
- Endocrine dysfunction (hypothyroidism)
- Infection
- Cardiac dysfunction
- Pulmonary dysfunction
- Renal dysfunction
- Hepatic dysfunction
- Neurologic dysfunction

Cancer-related fatigue
How Common is Fatigue?

FATIGUE IS MOST PREVALENT AND LONGEST-LASTING CANCER-RELATED SIDE EFFECT

Which condition affects a cancer patient’s daily life more?  Which condition lasts the longest?*

* Condition persisted from one day to two or more weeks.
Wellness - The Road to Recovery

What is Wellness? And how do I get it?!
WHAT IS WELLNESS?

• “The state of being in good health.”
• “Wellness is the harmony of body, mind, and spirit”.

Joy
• Promoting happiness and gratitude

Spirit
• Finding meaning

Mind
• Stress awareness and reduction

Body
• Exercise
• Diet
• Conventional medicine
• Other modalities: acupuncture, naturopathic medicine
Wellness of the Body: 
The Anti-inflammatory Diet
Structuring Your Plate

High Quality Proteins:
- Wild caught salmon
- Legumes
- Organic chicken

High Quality Carbs:
- Brown Rice
- Quinoa
- Whole wheat
- Amaranth
- Barley
- Farro

Vegetables and fruit:
- Veggies>Fruit
- Focus on Variety
- Eat seasonal
- Eat organic when possible (learn the dirty dozen)

25% High quality protein

50% Vegetable and Fruit

25% High quality carbs

FATS:
- GET your omega 3s!
  - (Cold water fish, flax (ground), chia, hemp, walnuts)
- Olive Oil
- Coconut Oil
Association between physical activity and mortality among breast cancer and colorectal cancer survivors: a systematic review and meta-analysis

D. Schmid* & M. F. Leitzmann

Department of Epidemiology and Preventive Medicine, University of Regensburg, Regensburg, Germany

Received 16 September 2013; revised 13 November 2013; accepted 3 December 2013

doi:10.1093/annonc/mdu012
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Exercise and Cancer-Specific Mortality

(Schmid & Leitzmann Annals Onc 2014;25:1293-1311)
PA and All-Cause Mortality

(Schmid & Leitzmann Annals Onc 2014;25:1293-1311)
Wellness of the Body: Exercise

- Get at least 150 minutes of moderate physical activity each week (or 75 minutes of vigorous)
- Break it up if needed
- Get a buddy
- Consider electronic motivation (Fitbits, JawBone, etc)
- Do what you enjoy
- Mix it up
- Stay hydrated
- Be Sun Safer
Conventional Medicine

- Talk to your doctor about other conditions that cause fatigue and if you should be tested such as:
  - Anemia
  - Thyroid disorders
  - Adrenal disorders
  - Depression
Naturopathic Medicine

- Naturopathic medicine is a “distinct primary health care profession, emphasizing prevention, treatment, and optimal health through the use of therapeutic methods and substances that encourage individuals’ inherent self-healing process.”
- In-depth look at contributing factors
- May recommend particular diet, vitamins, or supplements
American Ginseng to Fight Fatigue

• Many small trials show efficacy and safety for treatment of cancer related fatigue
• 23 articles found with search of ginseng + cancer related fatigue in PUBMED
• Dose 1000mg to 2000mg daily
• Always speak with doctor prior to initiation
• Acupuncture has been proven to combat cancer related fatigue.

Acupuncture for cancer-related fatigue in lung cancer patients: a randomized, double blind, placebo-controlled pilot trial

Chien-shan Cheng¹,² - Lian-yu Chen¹,² - Zhou-yu Ning¹,² - Chen-yue Zhang¹,² - Hao Chen¹,² - Zhen Chen¹,² - Xiao-yan Zhu¹,² - Jing Xie¹,²

63 studies on acupuncture and cancer related fatigue in Pubmed
WELLNESS of the MIND

• Stress can trigger hormones in your body that produce inflammation.

• Inflammation is the body’s attempt at healing itself when there is a harmful substance or event however, when inflammation is present in the body for sustained periods of time chronic illness (such as cancer) can occur.
- Noradrenaline/adrenaline
- Cortisol

Tumour microenvironment

- Immune cells
  - Immune response
  - Activity

- Cancer cells
  - Migration and invasion
  - Proteases (MMPs)
  - Altered DNA repair

- Viruses
  - Oncogene transcription
  - Viral replication
  - Host-cell cycling

- Blood vessel
  - Angiogenesis/pro-angiogenic cytokines (VEGF, IL-6)
Chronic stress promotes tumor growth and angiogenesis in a mouse model of ovarian carcinoma

Stress effects on tumor growth

- Tumor weight (g)
  - Control
  - Daily stress (2 h)
  - Daily stress (6 h)

- Number of nodules
  - 0
  - 1
  - 2
  - 3

Statistical significance indicated by:
- *: Significant difference
- **: Stronger significance

Source: Nature Medicine, Volume 12, Number 8, August 2006
# STRESS INVENTORY

<table>
<thead>
<tr>
<th>MIND</th>
<th>Stressed (Pro-inflammatory)</th>
<th>Relaxed (Anti-inflammatory)</th>
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<tbody>
<tr>
<td>Mind</td>
<td>Worrying about the future</td>
<td>In the present</td>
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<tr>
<td></td>
<td>Ruminating about the past</td>
<td>Engaging the breath</td>
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<td></td>
<td>Perpetual planning</td>
<td>Nurturing self talk</td>
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<td>Negative self talk</td>
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<tr>
<td>BODY</td>
<td>Tense muscles</td>
<td>Relaxed muscles</td>
</tr>
<tr>
<td></td>
<td>Shallow breath</td>
<td>Deep, slow “belly” breaths</td>
</tr>
<tr>
<td></td>
<td>Cold, clammy hands</td>
<td>Warm hands</td>
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Stress Reduction

• **THE 4-7-8 Breath technique**
  • Breathe out
  • Breathe in for count of 4
  • Hold breath for count of 7
  • Breathe out for count of 8

• **Many other techniques:**
  • meditation, mindfulness, aromatherapy, exercise, laughter
JOY

• To be joyful is to be human.
• We, like children, are meant to laugh and to play.
• Rediscover what makes you joyful.
• Set an intention for joy to be part of your life every day.
• Make a daily practice of gratitude.
Conclusion

• Cancer Related Fatigue is the most common complaint in cancer survivorship.
• The cause is usually many different contributing factors
• Promoting wellness is the most effective tool to combating fatigue with focus on Diet, Exercise, Spirit, and Joy
• Engage your doctor and other healthcare team members in a discussion about fatigue.
• Be patient: it can take time for full recovery.
Medical Oncology

Naturopathy

Chinese Medicine

Acupuncture

Native Healing

Salish Care Team

Eiko Klimant, MD
Krisstina Gowin, DO
Paul Reilly, ND
Sunara Sotelo, DAOM, L.Ac.
Shawna Olson-Smith, NP

NEW PATIENT LINE:
253-382-6317
Thank you!

Contact me if you are interested in survivorship support group or classes!

Krisstina.gowin@salishcancercenter.com