Understanding the Psychobiology of Fatigue

- **The Stress-Cortisol Connection**: cortisol, the adrenal hormone associated with acute stress, is elevated; chronic stress produces cortisol resistance. Psychological stress is perpetuated by a loss of sense of control and predictability.
- **The Cortisol-Inflammation Connection**: chronic stress undermines the anti-inflammatory effects of cortisol, increasing low-grade chronic inflammation.
- **The Inflammation-Brain-Body Connection**: chronic inflammation is critically involved in stress-related disorders involving fatigue.
  - **Neuroinflammation**: cortisol is toxic to the hippocampus and lateral prefrontal cortex, impairing short-term and working memory, and increasing the rate of cognitive decline.
  - **Arterial Inflammation**: role in arterial stenosis, coronary artery disease, and stroke.
  - **Periodontal Inflammation**: the most chronic inflammation; produces widespread blood-borne inflammatory cytokines.
  - **GI Tract Inflammation**: where most neurotransmitters such as serotonin and dopamine are synthesized; GI inflammation can produce generalized anxiety and mood disorders.
- **The Inflammation-Pain-Mood Connection**: how chronic inflammation increases pain and lowers mood; chronic pain and depression are tightly linked.
- **The Pain-Mood-Sleep Connection**: chronic pain and lowered mood impair restorative sleep (stage 3 and stage 4 sleep); sleep loss also increases inflammation and is a major driver of fatigue.
- **The Sleep-Immune-Fatigue Connection**: a key function of restorative sleep is to remove inflammatory waste products of the brain such as amyloid; reduced sleep impairs immune surveillance and affects who gets sick and who stays well.
- **Reversing the Vicious Cycle Linking Stress, Inflammation, Mood-Anxiety-Pain and Sleep**: psychobiological interventions at any point in the cycle can produce an upward spiral of improvement.

Understanding Selected Fatigue Syndromes

- **Major Depression**: cortisol suppression impairs sleep; impaired sleep and lowered mood also impairs concentration; how chronic inflammation lowers mood and affects cortisol, stress, cognition and mood.
- **Chronic Fatigue Syndrome**: fatigue with minimal exertion is also identified with lowered mood, fatigue-related muscular pain, triggered by inflammatory events (infections, IBS, pain) and maintained by inactivity, lowered mood, and probable ongoing sources of inflammation.
- **Psychophysiological Insomnia**: threat, specific fears and generalized anxiety are cognitions that delay sleep onset; lowered mood, which often coexists with anxiety, impairs sleep duration and depth; excessive daytime fatigue and lack of restorative sleep can be cumulative.
- **Profession-Related Fatigue**: stress is related to loss of sense of control and predictability regarding excessive demands and expectations imposed by others and unrealistic expectations imposed by the health professional themselves, e.g., perfectionism; this relates to lowered mood, chronic fatigue, and psychophysiological insomnia.

FREQUENTLY ASKED QUESTIONS

Q: Is there a way to enjoy the webcasts without being at my computer for 6 hours? What if I am not free on any of the scheduled dates of the broadcasts?

Yes! First, register for the program. You will receive a link to view the program starting June 27 until July 27. The program will be divided into four segments of approximately 75 minutes for user-friendly viewing.

Q: What if I have technical issues getting and staying connected, difficulty seeing the slides, or hearing the speaker?

We have an expert videographer to capture the sound and slides. We will make copies of the outline available to the participants. Further, in the unlikely event that you have connection problems, IBP will provide registrants with a free set of 4 CDs or DVDs of the entire program.

Q: I’d like to view the program and receive credit but without watching the live program or downloading it and still receive continuing education credit. Can I do this?

Yes! The cost of the DVD or CD set will be the same as the cost of the live program. Register now, let the operator know you want the CD or DVD set (specify which), and make sure your profession is included in our online brochure.

Q: Can I attend this program live?

Yes, but only if you live in a city where IBP is currently presenting this seminar.

Q: My profession is not included on the brochure. Can I receive continuing education credit?

Maybe. Please contact our customer service at (888) 202-2938.

Q: How long does it usually take to receive a certificate of completion?

Typically, within 3 or 4 business days.

This innovative program reviews the mind-body connection underlying common fatigue-related conditions, the critical role of inflammation, stress, mood, anxiety, pain, and sleep. Advances in reducing fatigue and increasing energy are presented. Throughout the program, Dr. Sieber will demonstrate practical and evidence-based approaches to reducing fatigue. Participants completing the program should be able to:

1. Discuss how psychological stress contributes to fatigue including the role of inflammation, mood, anxiety, pain, and sleep.
2. Compare and contrast fatigue as it occurs in major depression, chronic fatigue, psycho-physiological insomnia, and profession-related fatigue.
3. Outline an approach involving psychological modalities for treating a selected fatigue-related disorder.
4. Outline an approach involving lifestyle factors, such as physical activity, conscientious eating, restorative sleep, and meditative traditions for managing a fatigue-related disorder.

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- **Evidence-Based Approaches for Reducing Fatigue**
  - **Addressing Cognitive Factors**: how cognitive distortions can be untwisted through cognitive-behavioral therapies—powerful techniques that enable people to dispute automatic, habitual thoughts and the emotions they trigger.
  - **Addressing Interpersonal Factors**: making meaningful lifestyle changes to address maladaptive habits.
  - **Motivational Interviewing**: how to use this technique to overcome encourage others to make fatigue-reducing changes.
  - **Addressing Physical Activity**: one of the most reliable methods of reducing fatigue by the right dose of graded physical activity.
    - **Mood Elevation**: multiple studies show that the right amount and intensity of physical activity improves mood.
    - **Stress Resilience**: physical activity produces positive stress, since we have predictability and control over the stressors.
    - **Sleep Depth**: the right dose of physical activity increases restorative sleep.
    - **Pain Relief**: the right dose elevates levels of endogenous opioids produced by the brain and spinal cord.
    - **Reduced Inflammation**: while physical activity initially increases inflammation, it reduces it over the longer-term.
  - **Addressing Positive Psychology**: fatigue is reduced by positive and realistic expectations; how the practice of positive psychology puts people in touch with natural sources of meaning, joy, gratitude, and happiness.
  - **Conscientious Eating**: under-nutrition and over-nutrition both impair cortisol and increase stress; conscientious eating of anti-inflammatory, low glycemic, and appetite-regulating fiber and proteins improve energy; seven different classes of anti-inflammatory nutrients.
  - **Prioritizing Restorative Sleep**: managing pain, light, temperature, time of sleep onset and duration, and thoughts that keep us awake; meals that elevate tryptophan/serotonin and naturally sedate; allowing enough time to sleep without the pressure to fall asleep.
  - **Calming Traditions**: how to experience the calming yet energizing benefits of healing traditions including Yoga, Tai Chi, and mindfulness-based stress reduction.

ABOUT THE INSTRUCTOR

Bill Sieber, Ph.D., Clinical Professor in the Departments of Psychiatry and in Family Medicine at the University of California, San Diego, directs their Collaborative Care Program. With over 25 years of clinical, research, and teaching experience, Dr. Sieber is an expert in the behavioral management of disorders of anxiety, mood and fatigue. He blends evidence-based research with practical strategies to directly enhance the wellbeing of health professionals and to help calm their clients.

An outstanding and dedicated instructor, Dr. Sieber is recognized for excellent teaching at UCSD School of Medicine and for developing national training programs. Health professionals commend his clinical wisdom, wit, and warmth.

In addition to Q & A sessions in class, Dr. Sieber will answer your questions during the second half of the lunch break and by email after the program concludes.