

ANXIETY, SLEEP, AND THE BRAIN



NURSES: Institute for Brain Potential (IBP) is accredited as a provider of nursing continuing professional development by the **American Nurses Credentialing Center's Commission on Accreditation**. This program provides 6 contact hours.



PSYCHOLOGISTS: Institute for Brain Potential is approved by the **American Psychological Association** to sponsor continuing education for psychologists. Institute for Brain Potential maintains responsibility for this program and its content. This program provides 6 CE credits.



COUNSELORS & MARRIAGE AND FAMILY THERAPISTS: Institute for Brain Potential has been approved by NBBCE as an Approved Continuing Education Provider, ACEP No. 6342. Programs that do not qualify for NBCC credit are clearly identified. Institute for Brain Potential is solely responsible for all aspects of the programs. This program provides 6 CE clock hours.



SOCIAL WORKERS: Institute for Brain Potential, ACE Approval Number: 1160, is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved as ACE providers. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. Institute for Brain Potential maintains responsibility for this course. ACE provider approval period: 11/11/20 – 11/11/23. Social workers completing this course receive 6 clinical continuing education credits. Social Work Practice Level: Intermediate.

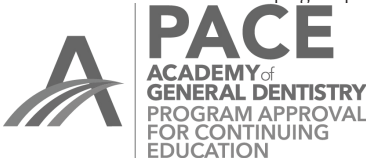


CHEMICAL DEPENDENCY PROFESSIONALS: This course has been approved by Institute for Brain Potential, as a NAADAC Approved Education Provider, for 6 CE's. NAADAC Provider #102949, Institute for Brain Potential is responsible for all aspects of its programming.



PHARMACISTS AND PHARMACY TECHNICIANS: Institute for Brain Potential is accredited by the **Accreditation Council for Pharmacy Education** as a provider of continuing pharmacy education. This knowledge-based activity provides 6 contact hours (.6 CEUs). UANs: 0492-0000-22-101-L04-P and 0492-0000-22-101-L04-T

DENTAL PROFESSIONALS: This program provides 6 hours of continuing education credit.



Institute for Brain Potential
Nationally Approved PACE Program Provider
for FAGD/MAGD credit.
Approval does not imply acceptance by any
regulatory authority or AGD endorsement.
12/01/18 to 11/30/24
Provider ID# 312413.
AGD Subject Code: 557.



APPROVED PROVIDER OF
CONTINUING EDUCATION
by the American Occupational
Therapy Association, Inc.

OCCUPATIONAL THERAPISTS: Institute for Brain Potential is an American Occupational Therapy Association (AOTA) Approved Provider, #6050. The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA. This program provides 0.6 AOTA CEUs or 6 contact hours. Content Level: Intermediate. Content Focus: Domain of OT (Areas of Occupation).

NURSING HOME ADMINISTRATORS: Institute for Brain Potential is a *Certified Sponsor* of professional continuing education with the **NAB** and has approved this program for 6 clock hours under its sponsor agreement with NAB/NCERS. State licensure boards, however, have final authority on the acceptance of individual courses.

PHYSICAL THERAPISTS: Institute for Brain Potential is approved as a provider of physical therapy continuing education by the **Physical Therapy Board of California (PTBC)**. This program has been approved by the Texas chapter of the **American Physical Therapy Association (APTA)**. The **MT Board of Physical Therapy** accepts CE courses approved by APTA chapters or PT licensing boards of other states. This program qualifies as Category A in MT. This program provides 6 contact hours of CE.

SPEECH-LANGUAGE PATHOLOGISTS: This program is designed to be relevant to speech-language pathologists. Participants will receive a certificate of completion for participating in this 6-hour program.

MASSAGE THERAPISTS: Institute for Brain Potential is approved by NCBTMB as a CE Approved Provider, #450939-09. This course provides NCBTMB-approved 6 CE hours.

CASE MANAGERS: This program has been pre-approved by the **Commission for Case Manager Certification** to provide 6 CE contact hours to CCM® board certified case managers.

PHYSICIAN ASSISTANTS: This educational activity provides 6 hours of Category 2 CME credits.

DIETITIANS: IBP is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). Registered dietitians (RDs) and dietetic technicians, registered (DTRs) will receive 6 CPEUs for completion of this program. Continuing Professional Education Provider Accreditation does not constitute endorsement by CDR of a provider, program, or materials. Provider Number: BP001. CPE Level: I. Suggested Learning Codes: 5320, 5420, and 6010.

ALLIED HEALTH PROFESSIONS: Naturopathic Physicians, Veterinarians, Prosthetists, Orthotists, and Chiropractors receive a Certificate of Completion for this 6-hour program. Please contact your regulatory board to determine course approval.

EDUCATORS: Participants will receive a Certificate of Completion for 6 hours.

Learn how anxiety-related disorders interfere with sleep and how to apply mind-body techniques to improve sleep and protect the aging brain.

Participants completing this 6-hour program should be able to:

1. Name aspects of poor sleep in people with anxiety-related disorders.
2. Identify brain-related impairments associated with insufficient sleep.
3. List cognitive-behavioral and mindful approaches to improve sleep.
4. Discuss nutritional approaches to enhance sleep.
5. Cite guidelines for attaining positive sleep habits.

Sleep Deprivation and Anxiety Disorders

- **A Night of Restorative Sleep:** slow-wave sleep, REM sleep, circadian rhythms, and healthy cortisol rhythm; how much sleep we need, and the epidemic of insufficient sleep.
- **How Anxiety-Related Disorders Interfere with Sleep**
 - Generalized Anxiety Disorder
 - Obsessive Compulsive Disorder
 - Posttraumatic Stress Disorder
 - Mixed Anxiety and Depression
- **The Significance of Different Aspects of Sleep Disturbance**
 - Lying Awake for Extended Time Before Sleep Onset
 - Shallow Sleep Indicated By Stage 1 and 2 Slow-Wave Sleep
 - Multiple Awakenings
 - REM Behavior Disorder, Depression and Parkinson's Disease
 - Difficulty Returning to Sleep
 - Total Sleep Time
 - Excessive Daytime Fatigue
- **Cortisol and Stress-Related Symptoms:** cortisol, the adrenal hormone associated with chronic stress, is elevated with sleep deprivation, and is associated with neuro-inflammation and hypertension.
- **Anxiety and the Vigilant Brain:** increased time lying awake; reduced restorative slow-wave sleep and less total sleep.
- **Anxiety and Depression:** anxiety is associated more with difficulty falling asleep whereas depression is related to early awakening with inability to return to sleep; REM sleep occurring at the time of sleep onset and cortisol suppression.
- **Sleep Loss and Memory Impairments:** how insufficient slow-wave or REM sleep impairs short-term memory, long-term memory and memory for habits.
- **Short-Term Memory Consolidation:** elevated cortisol strips hippocampal neurons of their dendrites.
- **Fear, Anxiety and the Sensitized Amygdala:** elevated cortisol enlarges the amygdala, the brain's "watch dog."
- **Regret, Rumination, and "What If" Thinking:** how a region of the frontal lobes sensitive to aging is critical for producing restorative slow-wave sleep and "what if" thinking.
- **Removal of Neurotoxins:** a key function of restorative slow-wave sleep is the removal of waste products, including beta-amyloid and tau, biomarkers of Alzheimer's Disease.

A Brain-Based Approach to Improve Sleep

- **A New Approach:** by identifying the parts of the brain that impair sleep, optimal mind-body interventions can be practiced.
- **Calming the Alerting System—Tired But Wired:** exercises that help us habituate to the bedroom by mindfully focusing on thoughts, feelings, and sensations to quiet the reticular formation.
- **Reducing Pain:** mind-body approaches to calm the pain matrix.
- **Reducing Hunger:** hormones that keep us awake; low glycemic snacks that help to relax.
- **Cooling the Environment:** to fall asleep, the body must cool itself by 2 degrees; role of room temperature and the hypothalamus.
- **Resetting Circadian Rhythms:** time markers (light-dark, meal time), cortisol rhythm in sleep-phase disorders (e.g., night owls).
- **Reducing Fear:** calming the amygdala by the slower, wiser frontal cortex by visualizing more realistic expectations.
- **Reducing Rumination:** calming the fronto-polar region involved in "what if" reasoning.
- **Reducing Anticipatory Anxiety:** parts of the prefrontal cortex "invent" the future; how a sleep journal can distance us from thoughts that keep us awake.
- **Cognitive-Behavioral Approaches for Insomnia:** CBT engages the parieto-temporal cortices to modify how we think about sleep; the mindset of stress-resilient people.
- **Mindfulness-Based Sleep Meditation:** unfocused attention (open monitoring) involves non-judgmental awareness of sensations, feelings, and thoughts and diminished activity in anxiety-related brain areas.
- **Food, Neurotransmitters, Hormones and Sleep**
 - GABA, gabapentin, sedation, and lavender.
 - Serotonin, tryptophan, and reducing wakefulness.
 - Melatonin: misuse and use for setting the time of sleep onset.
 - Orexin: selected lipids that act like hypnotics.
 - Cortisol: nutritional and botanical modification.
- **Adopting Brain-Protective Sleep Habits of SuperAgers:** how to attain and maintain positive habits.

ABOUT THE INSTRUCTOR

Michele Okun, Ph.D., a psychologist, teaches and is an Associate Professor of Research in the Department of Psychology, University of Colorado, Colorado Springs. She is an expert in the study of disturbed sleep, inflammation, and depression. Dr. Okun has authored or co-authored over three dozen scientific articles and book chapters and has presented her research as an invited speaker at numerous conferences and lectures in the North America and England.

Dr. Okun, the recipient of many honors and awards, is recognized for teaching excellence. Health professionals recommend her outstanding presentations for her personable and stimulating teaching style presented with clinical wisdom, wit, and warmth. In addition to Q & A in class, Dr. Okun will answer your questions during the second half of the lunch break and by email after the program concludes.