

Pharmacology Fundamentals for Therapists

Mark S. Nash PhD, FACSM



Faculty

Mark S. Nash, PhD, FACSM is a dynamic instructor who is highly regarded for his ability to take complex information and make it meaningful and clinically relevant. His pharmacology courses are acclaimed for ease of understanding and relevance to therapy practice. He is a tenured Professor of Neurological Surgery and PM&R at the Miller School of Medicine, University of Miami, Associate Scientific Director for The Miami Project to Cure Paralysis, and Vice-Chair for Research in Physical Medicine & Rehabilitation. He holds graduate degrees in Human Biology, Applied Physiology, and Clinical Anatomy, and was a Doctoral Fellow focusing on rehabilitation of ischemic heart disease. Dr. Nash has taught doctoral coursework in Pharmacology in two distinguished Physical Therapy Programs and has presented more than 120 continuing education programs nationwide. He has published more than 150 manuscripts, scholarly monographs, and book chapters on topics in rehabilitation physiology.

Disclosure: Financial: Dr. Nash receives a speaking fee from Education Resources for this course. Non-Financial: He has no non-financial relationships to disclose.

About this Course

Patients undergoing therapy routinely take both prescription drugs and OTC medicines that ultimately influence treatment outcomes. Therapists with knowledge of these medicines practice safer, more effective therapy. The course will examine Rx and non-Rx medicine used in the therapy setting and will cover adverse effects that influence treatment and outcomes. Information will focus on drug actions and patient errors when treating pain, as well as common disorders of the musculoskeletal, neurologic, cardiorespiratory, and endocrine systems. Common OTC drugs and herbals are examined for occult hazards and drug interactions. Unique responses of gender and special populations will be emphasized. Electronic resources for free drug-related information will be demonstrated.

Objectives

Upon completion of this course, the participant will:

- 1. Describe basic factors that control drug uptake, bioavailability, and metabolism.
- 2. List benefits, limitations, and adverse effects of drug families used to treat inflammation and pain.
- 3. Classify drug families and drugs used to treat disorders and diseases of the musculoskeletal, neurological, cardiorespiratory, and endocrine systems.
- 4. Describe how drug choices and administration influence therapy outcomes, including common errors in drug administration committed by patients.
- 5. Understand the unique impact of patient gender and heritage on drug effects and risks.
- 6. Define potential harms and drug interactions for over-the-counter medications and herbals.

Audience

This course will target clinicians working with adults across the lifespan with pain, and conditions of the musculoskeletal, neurologic, cardiorespiratory, and endocrine systems that require medication use.

Help your patients achieve better outcomes.

Schedule – Day 1 9:40 am-3:30 pm EST (US)

- 9:40-10:00** Webinar Registration/Zoom Course Opens
- 10:00-10:45** Key Principles of Pharmacology:
- Drug Classification, Uptake, Distribution, and Interactions
 - Monotherapy and Multi-therapy Approaches: Advantages and Risks
 - FDA Jargon: On-label, Off-Label, and Emergency Use Authorization – What does it mean for you and your patient?
- 10:45-12:00** Drug Treatment of Pain and Inflammation
- General Principles of Pain and Inflammation Management:
 - Benefits, Risks and Differences in Treating Nociceptive Pain vs. Neuropathic Pain
 - Opioids
 - Steroidal and Nonsteroidal Anti-inflammatory Drugs
 - Antidepressants and Analeptics
 - Case Studies
- 12:00-1:00** Drug Treatment of Musculoskeletal Disorders
- Osteoarthritis: Rx, OTC, and Nutraceuticals
 - Rheumatoid Arthritis and Immune Hypersensitivity
 - Hypertonia and Spasm
 - Case Studies
- 1:00-1:30** Lunch Break
- 1:30-2:30** Drug Treatment of Respiratory Disorders
- Asthmatic Bronchitis and COPD
 - Sinusitis and Rhinitis
 - Case Studies
- 2:30-3:30** Drug Treatment of Cardiovascular Disorders
- Hypertension and Angina

Schedule – Day 2 9:40 am-3:30 pm EST (US)

- 9:40-10:00** Webinar Registration/Zoom Course Opens
- 10:00-11:30** Drug Treatment of Cardiovascular Disorders (continued)
- Heart Failure
 - Atherosclerotic Lipid Disorders
 - Clotting and Circulatory Deficiencies
 - Cases
- 11:30-1:00** Drug Treatment of Nervous System Disorders
- Depression
 - Anxiety
 - Parkinsonism
 - Alzheimer's Dementia
 - Stroke
 - Cases
- 1:00-1:30** Lunch Break
- 1:30-2:30** Drug Treatment of Endocrine Disorders
- Obesity
 - Diabetes (Type I and Type II)
 - Osteoporosis (Male and Female)
 - Cases
- 2:30-3:00** Women's Health and Gender-based Drug Differences
- Women's Health Initiative Studies: What Every Woman Should Know
 - Estrogens, Female NTI's, and Unique Drug Effects in Women
- 3:00-3:30** Non-RX Medications, Nutraceuticals, and Herbals
- Benefits, Hidden Risks, and Harmful Interactions with Prescription Drugs
 - Free Internet and Smartphone Resources

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Credits

This course meets the criteria for 10 contact hours (1.0) CEUs, Intermediate Level.



Education Resources Inc. is an AOTA Approved Provider of professional development. Provider #3043. This Distance Learning-Interactive course is offered at 10 contact hours 1.0 CEUs. Intermediate level, OT Service Delivery. AOTA does not endorse specific course content, products, or clinical procedures.

NBCOT professional development provider – 10 PDUs.

Approved provider of the **FL** Board of Occupational Therapy-CE Broker 12- hours. This course meets the approval of the **TX** Board of OT Examiners.



Education Resources Inc.
Intermediate Level
1.0 ASHA CEUs

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This program has been submitted for approval of 10 clock hours of continuing education credit by the **TX** Speech Language-Hearing-Association (TSHA). TSHA approval does not imply endorsement of course content, specific products or clinical procedures.

Most Physical Therapy State Boards accept webinars as a live offering. Please check with your state board to confirm.

Application has been made to the **FL** Physical Therapy Association for 12 continuing education contact hours. Application has been made to the **MD** Board of Physical Therapy Examiners for 1.0 CEU. Application has been made to the **NJ** Board of Physical Therapy Examiners. Application has been made to the **OK** Board of Medical Licensure and Supervision for Physical Therapy. Approved sponsor by the State of **IL** Department of Financial and Professional Regulation for Physical Therapy for 12 contact hours.

Approved provider by the **NY** State Board of Physical Therapy for 12 contact hours (1.2 CEUs).

Education Resources, Inc. is an approved provider for Physical Therapy CEUs in the following states: **CA, KY and TX**. The following state boards of physical therapy accept other states' approval: **AK, AR, AZ, DC, DE, GA, HI, ID, IN, KS, MI, MO, MS, NC, OR, PA, RI, SC, UT, VA, VT, WI, WY**. The following state boards of physical therapy either do not require course pre-approval or do not require CEUs for re-licensure: **AL, CO, CT, IA, MA, ME, MT, NE, ND, NH, SD, WA**.

10 hours of this course qualify towards the discipline-specific hours for the 20-hour requirement for NDTA re-certification. They do NOT qualify towards the 8-hour NDTA Instructor requirement for re-certification.

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WEBINAR DATES AND TIMES

March 12 and 13, 2022

9:40 am EST • 8:40 am CST • 7:40 am MST • 6:40 am PST (US)

Registration is for both days. Zoom log-in instructions and course materials will be emailed/added to your ERI account 5-7 days prior to the first date of the webinar.



\$369 fee. **LIMITED ENROLLMENT** Cancellation will be accepted until 14 days prior to the start date of the course, minus a \$75 Administration Fee. There will be NO REFUNDS after this 14-day deadline. Registration will be accepted after deadline on a space available basis. We encourage you to register online!

**WEBINAR: Pharmacology Fundamentals/Nash
March 12 and 13, 2022**

Course Registration Form

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Home Phone: _____ Work Phone: _____

Cell Phone: _____

Needed in the event of an emergency scheduling change

Email: _____

Please clearly print your email address for course confirmation

Employer: _____

Discipline: _____ Specialty: _____

How did you learn of this course? _____

Education Resources reserves the right to cancel any course due to insufficient registration or extenuating circumstances. We are not responsible for any expenses incurred by participants if the course must be cancelled.

I have read your refund policy above and understand.

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