# NEI’s Master Psychopharmacology Program
## Study Guide: Chronic Pain

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<th>Subtopic</th>
<th>Benchmarks (You Should Be Able To)</th>
<th>Recommended Resources</th>
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<tr>
<td><strong>Symptom Presentation and Assessment</strong></td>
<td>Define nociception, pain, acute pain, chronic pain, neuropathic pain, allodynia, and hyperalgesia&lt;br&gt;Identify disorders characterized by peripheral chronic pain&lt;br&gt;Identify and describe symptoms of disorders characterized by central chronic pain&lt;br&gt;Identify psychiatric illnesses that include painful somatic symptoms&lt;br&gt;Describe techniques for evaluating chronic pain conditions</td>
<td>Additional Resources**&lt;br&gt;Stahl SM. Stahl’s essential psychopharmacology, fourth edition. New York, NY: Cambridge University Press; 2013. (Chapter 10)&lt;br&gt;Stahl SM. Stahl’s illustrated chronic pain and fibromyalgia. New York, NY: Cambridge University Press; 2009. (Chapter 3–4)&lt;br&gt;<a href="https://www.nei.global/programs/mpp">Assessment and Management of Chronic Neuropathic Pain (CME video)</a></td>
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<td><strong>Neurobiology of Symptoms</strong></td>
<td>Differentiate between nerve fibers and the types of sensory stimuli to which they respond&lt;br&gt;Explain the neurobiological process of normal nociceptive transduction&lt;br&gt;Identify major neurotransmitters associated with pain processing&lt;br&gt;Explain the role of voltage-sensitive channels in pain processing&lt;br&gt;Identify underlying peripheral and central mechanisms leading to neuropathic pain&lt;br&gt;Identify descending inhibitory and facilitatory pain pathways</td>
<td>Additional Resources**&lt;br&gt;Stahl SM. Stahl’s essential psychopharmacology, fourth edition. New York, NY: Cambridge University Press; 2013. (Chapter 10)&lt;br&gt;Stahl SM. Stahl’s illustrated chronic pain and fibromyalgia. New York, NY: Cambridge University Press; 2009. (Chapter 2)</td>
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<td><strong>Mechanisms of Chronic Pain Agents</strong></td>
<td>Identify and describe mechanisms of action for reduction of peripheral neuropathic pain&lt;br&gt;Explain mechanisms for modulation of neurotransmitters in order to reduce central neuropathic pain&lt;br&gt;Explain mechanisms for modulation of voltage-sensitive channels in order to reduce central neuropathic pain</td>
<td>Additional Resources**&lt;br&gt;Stahl SM. Stahl’s essential psychopharmacology, fourth edition. New York, NY: Cambridge University Press; 2013. (Chapter 10)&lt;br&gt;Stahl SM. Stahl’s illustrated chronic pain and fibromyalgia. New York, NY: Cambridge University Press; 2009. (Chapter 5)</td>
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*You may choose any 24 non-expired Learning Activities to complete the requirements of the Master Psychopharmacology Program. For the full list of Master Psychopharmacology Program requirements, please visit [nei.global/mpp](https://nei.global/mpp).

**These resources do not count toward the requirements of the Master Psychopharmacology Program and are merely listed here as useful resources for additional study.
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| Clinical Characteristics of Chronic Pain Agents | Identify currently available agents with evidence of efficacy in reducing chronic neuropathic pain  
Differentiate the clinical profiles of agents with evidence of efficacy in chronic neuropathic pain disorders                                                                                                           | Additional Resources**  
NEI Prescribe  
Chronic pain medication prescribing information/package inserts.                                                                                                                                                          |
| Treatment Strategies                                                  | Identify appropriate monotherapies and adjunct treatments for chronic neuropathic pain  
Identify novel mechanisms and strategies being investigated for potential application to chronic pain treatment  
Rationalize preemptive treatment approaches for preventing chronic pain  
Identify methods to screen for and address opioid dependence                                                                                                                  | Learning Activities*  
Cannabis for Chronic Pain: Evidence and Potential Risks (CME video)  

Additional Resources**  
NEI Prescribe  
Assessment and Management of Chronic Neuropathic Pain (CME video)  
Current Management: Migraine Headache (CME article)                                                                                                                                                                    |
| Special Considerations                      | Identify chronic pain agents for which treatment recommendations differ based on age  
Explain recommendations for chronic pain medication selection/maintenance in women who are pregnant or breastfeeding  
Identify chronic pain agents for which dosing recommendations are different for individuals with medical complications                                                                                       | Additional Resources**  
NEI Prescribe  
Chronic pain medication prescribing information/package inserts.                                                                                                                                          |

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