# Nonopioid Treatments for Chronic Pain

## Principles of Chronic Pain Treatment

Patients with pain should receive treatment that provides the greatest benefit. Opioids are not the first-line therapy for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. Evidence suggests that nonopioid treatments, including nonopioid medications and nonpharmacological therapies can provide relief to those suffering from chronic pain, and are safer. Effective approaches to chronic pain should:

- Use nonopioid therapies to the extent possible
- Identify and address co-existing mental health conditions (e.g., depression, anxiety, PTSD)
- Focus on functional goals and improvement, engaging patients actively in their pain management
- Use disease-specific treatments when available (e.g., triptans for migraines, gabapentin/pregabalin/duloxetine for neuropathic pain)

## Nonopioid Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Magnitude of Benefits</th>
<th>Harms</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>Small</td>
<td>Hepatotoxic, particularly at higher doses</td>
<td>First-line analgesic, probably less effective than NSAIDs</td>
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<tr>
<td>NSAIDs</td>
<td>Small-moderate</td>
<td>Cardiac, GI, renal</td>
<td>First-line analgesic, COX-2 selective NSAIDs less GI toxicity</td>
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<tr>
<td>Gabapentin/pregabalin</td>
<td>Small-moderate</td>
<td>Sedation, dizziness, ataxia</td>
<td>First-line agent for neuropathic pain; pregabalin approved for fibromyalgia</td>
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<tr>
<td>Tricyclic antidepressants and serotonin/norepinephrine reuptake inhibitors</td>
<td>Small-moderate</td>
<td>TCAs have anticholinergic and cardiac toxicities; SNRIs safer and better tolerated</td>
<td>First-line for neuropathic pain; TCAs and SNRIs for fibromyalgia, TCAs for headaches</td>
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<tr>
<td>Topical agents (lidocaine, capsaicin, NSAIDs)</td>
<td>Small-moderate</td>
<td>Capsaicin initial flare/burn ring, irritation of mucus membranes</td>
<td>Consider as alternative first-line, thought to be safer than systemic medications. Lidocaine for neuropathic pain, topical NSAIDs for localized osteoarthritis, topical capsaicin for musculoskeletal and neuropathic pain</td>
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</tbody>
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**Learn More**

[www.cdc.gov/drugoverdose/prescribing/guideline.html](http://www.cdc.gov/drugoverdose/prescribing/guideline.html)
RECOMMENDED TREATMENTS FOR COMMON CHRONIC PAIN CONDITIONS

**Low back pain**

Self-care and education in all patients; advise patients to remain active and limit bedrest

Nonpharmacological treatments: Exercise, cognitive behavioral therapy, interdisciplinary rehabilitation

Medications
- First-line: acetaminophen, non-steroidal anti-inflammatory drugs (NSAIDs)
- Second-line: Serotonin and norepinephrine reuptake inhibitors (SNRIs)/tricyclic antidepressants (TCAs)

**Migraine**

Preventive treatments
- Beta-blockers
- TCAs
- Antiseizure medications
- Calcium channel blockers
- Non-pharmacological treatments (Cognitive behavioral therapy, relaxation, biofeedback, exercise therapy)
- Avoid migraine triggers

Acute treatments
- Aspirin, acetaminophen, NSAIDs (may be combined with caffeine)
- Antinausea medication
- Triptans-migraine-specific

**Neuropathic pain**

Medications: TCAs, SNRIs, gabapentin/pregabalin, topical lidocaine

**Osteoarthritis**

Nonpharmacological treatments: Exercise, weight loss, patient education

Medications
- First-line: Acetaminophen, oral NSAIDs, topical NSAIDs
- Second-line: Intra-articular hyaluronic acid, capsaicin (limited number of intra-articular glucocorticoid injections if acetaminophen and NSAIDs insufficient)

**Fibromyalgia**

Patient education: Address diagnosis, treatment, and the patient’s role in treatment

Nonpharmacological treatments: Low-impact aerobic exercise (e.g., brisk walking, swimming, water aerobics, or bicycling), cognitive behavioral therapy, biofeedback, interdisciplinary rehabilitation

Medications
- FDA-approved: Pregabalin, duloxetine, milnacipran
- Other options: TCAs, gabapentin