### Summary of the American College of Physicians Guideline on Noninvasive Treatments for Acute, Subacute, or Chronic Low Back Pain

<table>
<thead>
<tr>
<th>Disease/Condition</th>
<th>Low back pain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Audience</strong></td>
<td>All clinicians</td>
</tr>
<tr>
<td><strong>Target Patient Population</strong></td>
<td>Adults with acute, subacute, or chronic low back pain</td>
</tr>
</tbody>
</table>
| **Interventions Evaluated** | Pharmacologic interventions: NSAIDs, nonopioid analgesics, opioid analgesics, tramadol and tapentadol, antidepressants, SMRs, benzodiazepines, corticosteroids, antiepileptic drugs  
Nonpharmacologic interventions: interdisciplinary or multicomponent rehabilitation; psychological therapies; exercise and related interventions, such as yoga or tai chi; complementary and alternative medicine therapies, including spinal manipulation, acupuncture, and massage; passive physical modalities, such as heat, cold, ultrasound, transcutaneous electrical nerve stimulation, electrical muscle stimulation, interferential therapy, short-wave diathermy, traction, LLLT, lumbar supports/braces |
| **Outcomes Evaluated** | Pain, function, health-related quality of life, work disability/return to work, global improvement, number of back pain episodes or time between episodes, patient satisfaction, adverse effects |
| **Benefits** | Acute low back pain  
Pharmacologic: NSAIDs: improved pain and function (small effect)  
SMRs: improved pain (small effect)  
Nonpharmacologic: Heat wrap: improved pain and function (moderate effect)  
Massage: improved pain and function (at 1 but not 5 wk) (small to moderate effect)  
Acupuncture: improved pain (small effect)  
Spinal manipulation: improved function (small effect) |
| | Chronic low back pain  
Pharmacologic: NSAIDs: improved pain (small to moderate effect) and function (no to small effect)  
Opioids: improved pain and function (small effect)  
Tramadol: improved pain (moderate effect) and function (small effect)  
Buprenorphine (patch or sublingual): improved pain (small effect)  
Duloxetine: improved pain and function (small effect)  
Nonpharmacologic: Exercise: improved pain and function (small effect)  
Motor control exercise: improved pain (moderate effect) and function (small effect)  
Tai chi: improved pain (moderate effect) and function (small effect)  
Mindfulness-based stress reduction: improved pain and function (small effect)  
Yoga: improved pain and function (small to moderate effect, depending on comparator)  
Progressive relaxation: improved pain and function (moderate effect)  
Multidisciplinary rehabilitation: improved pain (moderate effect) and function (no to small effect)  
Acupuncture: improved pain (moderate effect) and function (no to moderate effect, depending on comparator)  
LLLT: improved pain and function (small effect)  
Electromyography biofeedback: improved pain (moderate effect)  
Operant therapy: improved pain (small effect)  
Cognitive behavioral therapy: improved pain (moderate effect)  
Spinal manipulation: improved pain (small effect) |
| | Radicular low back pain  
Exercise: improved pain or function (small effect) |
| **Harms** | Generally poorly reported  
Pharmacologic: NSAIDs: increased adverse effects compared with placebo and acetaminophen (COX-2-selective NSAIDs decreased risk for adverse effects compared with traditional NSAIDs)  
Opioids: nausea, dizziness, constipation, vomiting, somnolence, and dry mouth  
SMRs: Increased risk for any adverse event and central nervous system adverse events (mostly sedation)  
Benzodiazepines: somnolence, fatigue, lightheadedness  
Antidepressants: Increased risk for any adverse event |
| | Nonpharmacologic: Poorly reported, but no increase in serious adverse effects |