



Local Anesthetic Blocks Series  
**LOCAL ANESTHESIA FOR THE DISTAL EXTREMITY**

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TABLE 3. Minimizing Risks Associated with IVRA & Ring Blocks

POTENTIAL ADVERSE EFFECT	IVRA	RING BLOCKS
<b>Tissue or nerve damage</b>	<ul style="list-style-type: none"> <li>• Limit tourniquet duration to &lt; 90 min</li> <li>• Monitor tourniquet pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure careful technique</li> <li>• Use new, small-gauge needles</li> <li>• Do <i>not</i> inject if resistance is met</li> </ul>
<b>Local anesthetic overdose</b>	<ul style="list-style-type: none"> <li>• Use lidocaine</li> <li>• Do <i>not</i> use bupivacaine</li> <li>• Calculate max dose for each patient</li> </ul>	<ul style="list-style-type: none"> <li>• Calculate max dose for each patient</li> <li>• Use dose calculation cheat sheet</li> <li>• Always aspirate syringe before injection</li> <li>• Label syringes</li> </ul>
<b>Inadequate analgesia during procedure</b>	<ul style="list-style-type: none"> <li>• Administer IV analgesic (eg, fentanyl, hydromorphone)</li> </ul>	<ul style="list-style-type: none"> <li>• Administer IV analgesic (eg, fentanyl, hydromorphone)</li> </ul>
<b>Venous engorgement</b>	<ul style="list-style-type: none"> <li>• Ensure absence of peripheral arterial pulse following tourniquet application</li> </ul>	n/a
<b>Tourniquet-related pain</b>	<ul style="list-style-type: none"> <li>• If patient shows signs of tourniquet pain—increased heart rate, respiratory rate, and blood pressure unresponsive to analgesic administration—place second tourniquet distal to initial tourniquet; then release proximal tourniquet after second is inflated.</li> </ul>	n/a