<table>
<thead>
<tr>
<th>Procedure</th>
<th>Advantages</th>
<th>Disadvantages</th>
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</table>
| Saphenous Vein   | No anesthesia  
Serial bleeding okay  
Moderate volumes  
Minimally invasive  
Complications rare | Moderate volumes require technical skill  
Requires shaving  
Restraint may raise stress hormones/blood glucose  
May cause temporary limping  
Not aseptic |
| Pedal Vein       | No anesthesia  
Serial bleeding okay  
Easy technique  
Quick, no shaving  
Minimally invasive  
Complication rare | Small volumes of blood only  
Restraint may raise stress hormones/blood glucose  
May cause temporary limping  
Not aseptic |
| Tail Bleeding    | No anesthesia  
Serial bleeding okay  
Small to moderate volumes  
Complications infrequent | Discomfort common  
Requires some technical skill—especially with small rats  
Heating may increase dehydration risk  
Restraint may raise stress hormones/blood glucose  
Aseptic technique more difficult |
| Tail Nicking     | No anesthesia  
Serial bleeding okay  
Easy repeat sampling (scab removal)  
Easy technique  
Complications rare if using needle | Discomfort common  
Complications more common if using scalpel  
Only small volumes  
Heating may increase dehydration risk  
Artery can take time to clot  
Restraint may raise stress hormones/blood glucose  
Sample quality variable (often contains tissue)  
Not aseptic |
| Tail Snipping    | Easy technique  
Easy repeat sampling (scab removal) | Requires IACUC justification  
Anesthesia/anesthetic required (>21 days)  
Discomfort common  
Damage common (especially for repeat sampling)  
Leukocytosis common (especially with tail milking)  
Heating may increase dehydration risk  
Sample quality variable (often contains tissue)  
Mixture of venous and arterial blood  
Not aseptic |
| Jugular          | High quality aseptic sample  
Large volumes | Anesthesia usually necessary  
Requires skilled technician  
Poor technique can cause nerve damage, hemorrhage or death  
Not applicable to serial sampling |
| Cardiac Puncture | High quality aseptic sample  
Large volumes  
Cut down for arterial or venous blood | Terminal procedure ONLY  
Deep anesthesia required  
Poor technique may limit volume  
Some technical skill required |