FAST FACTS

Preventing Holder-End (Back-End) Needlestick Injuries (NSIs)

The holder-end (the end that punctures the blood collection tube) of the needle is hidden by the rubber sheath, consequently, healthcare workers may not perceive the risk of needlestick injuries from this end.

But they happen.

- According to data from EPINet™ in 2000-2001, of the 114 NSIs that included descriptions of the injury, 12 (10.5%) indicated that the injury involved the holder-end of the needle. Of these, 5 could be directly related to needle removal from a tube holder.
- Even after passage of the Needlestick Safety and Prevention Act in 2001 and implementation of safety-engineered devices, NSIs from the holder-end still pose a risk to healthcare workers.
- From 2000-2007, 38 (13%) of the 297 NSIs documented could be attributed to holder-end NSIs.²

Testimonials from healthcare workers who received a needlestick injury from the holder-end of the needle¹:

“After drawing blood... disconnected needle from blood tube holder. Stuck myself with the covered end that pierces the blood tube.”

“Associate picked up what she thought was plastic lying on the floor with a tissue near it. She got stuck with the needle used for inside the blood tube holder.”

“After an unsuccessful venipuncture, withdrew the needle, unscrewed the hub from the needle; stuck myself with the rubber end of the needle where it did not penetrate the patient.”

“Venipuncture was performed and safety device was activated; was taking needle apart from holder and stuck finger.”

“Upon disposing of needle into sharps container, a co-worker was stuck by a phlebotomy needle that had not gone down into the sharps container. The rubber end of the phlebotomy needle is the end that stuck her.”

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of NSIs from Holder-end of Phlebotomy Needle (% of all descriptions)*</th>
<th>Number of NSIs from Front-end of Phlebotomy Needle</th>
<th>Total Number of NSI descriptions*</th>
<th>Holder-end NSI% of Total NSIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6</td>
<td>43</td>
<td>49</td>
<td>12.2%</td>
</tr>
<tr>
<td>2001</td>
<td>6</td>
<td>59</td>
<td>65</td>
<td>9.2%</td>
</tr>
<tr>
<td>2002</td>
<td>1</td>
<td>40</td>
<td>41</td>
<td>2.4%</td>
</tr>
<tr>
<td>2003</td>
<td>10</td>
<td>53</td>
<td>63</td>
<td>15.9%</td>
</tr>
<tr>
<td>2004</td>
<td>4</td>
<td>20</td>
<td>24</td>
<td>16.7%</td>
</tr>
<tr>
<td>2005</td>
<td>4</td>
<td>10</td>
<td>14</td>
<td>28.6%</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>21</td>
<td>25</td>
<td>16.0%</td>
</tr>
<tr>
<td>2007</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>18.8%</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>259</td>
<td>297</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

*Source: University of Virginia EPINet Injury Report from 2000-2007


38 Holder-end NSIs, 13%

259 Front-end NSIs, 87%
Mechanism of Injuries from Phlebotomy Needles

EPINet, 1993-2001: 90 Healthcare Facilities; 1,288 Injuries

As demonstrated by the bar graph, the highest percentage of injuries occurred **after use and before disposal**, reiterating the need for protection from safety shield activation to final disposal of the device.

- The tube holder provides the only protection from the holder-end of the needle after use.
- Pre-attached wingsets comply with the Occupational Safety and Health Administration single use mandate that prohibits re-use of tube holders.
- To minimize the risk of injury, the needle and tube holder should be disposed of as a unit.

- Single use tube holders such as the **BD Vacutainer® Push Button Blood Collection Set with Pre-Attached Holder** offer:
  - **Safety from End to End**
    Pre-attached holders minimize the risk of accidental needlestick injuries
  - **Compliance**
    Pre-attached holders are compliant with OSHA’S single-use mandate
  - **Efficiency**
    Pre-attached holders eliminate steps in the phlebotomy process

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