Scaphoid Screw
Surgical Technique

TriMed Scaphoid Screw System
K-wire Insertion

- Access the proximal pole fragment using a percutaneous technique or limited incision approach in the vicinity of Lister’s tubercle over the radiocarpal joint.
- Reduce the fracture.
- Confirm K-wire placement with C-arm on multiple views.

Screw Measurement

- Measure K-wire length with Wire Gauge.
- Subtract 4-6mm to account for fracture compression and to avoid articular penetration.
- Once length is determined, advance K-wire out through distal pole and exit the skin palmarly.* The wrist must remain flexed to avoid bending of K-wire. Secure tip with Pin Clamp.

  * This avoids inadvertent removal of K-wire during drilling and simplifies removal if K-wire breaks.

Site Preparation

- Drill through full scaphoid length over K-wire. This ensures the screw will be fully seated.
- Check position of the tip of the drill bit with C-arm.
- Countersink hole to depth needed to recess the screw head within the cortical bone.
**Screw Insertion**

- Select Scaphoid Screw with the desired short or long thread length* and insert screw. Ensure threads completely cross the fracture line.
- Complete insertion until head is completely recessed below subchondral surface.

*Use Screw Selection tip on next page as reference.

**Final Fixation**

- Confirm position and depth with C-arm. Ensure leading screw threads have passed the fracture line and the head is buried within cortical bone.
- Remove K-wire.
Screw Selection

• Short Thread - Interposition Grafting
• Long Thread - Proximal Pole Fracture

Fracture Stabilization

• Prior to drilling, a second wire inserted parallel to K-wire provides rotational stability.

Reduction Confirmation

• Advance a double-ended 1.1mm K-wire out through skin distally.
• Withdraw K-wire from distal side until proximal tip lies within the bone as shown in image to the right. Confirm position and reduction on C-arm. Assess articular congruency through multiple ranges of motion.
• Once reduction is confirmed, reverse K-wire back out proximally through skin.

Secure K-wire

• A Pin Clamp secured to the end of the K-wire will avoid inadvertent withdrawal of the wire during drilling.
**K-wire Insertion**
- Expose distal pole using a limited incision or percutaneous technique.
- Reduce the fracture.
- Confirm K-wire placement with C-arm on multiple views.

**Screw Measurement**
- Measure K-wire length with Wire Gauge.
- Subtract 4-6mm to account for fracture compression and to avoid articular penetration.
- Once length is determined, advance K-wire out through proximal pole and exit the skin dorsally.* Secure tip with Pin Clamp.

* This avoids inadvertent removal of K-wire during drilling and simplifies removal if the K-wire breaks.

**Site Preparation**
- Drill through full scaphoid length over K-wire. This ensures the screw will be fully seated.
- Check position of the tip of the drill bit with C-arm.
- Countersink hole to depth needed to recess the screw head within the cortical bone.
**Final Fixation**

- Confirm position and depth with C-arm. Ensure leading screw threads have passed the fracture line and the head is buried within cortical bone.
- Remove K-wire.

**Screw Insertion**

- Select Scaphoid Screw with desired short or long thread length* and insert the screw. Ensure threads completely cross the fracture line.
- Complete insertion until head is completely recessed below subchondral surface.

*Use Screw Selection tip on next page as reference.
Screw Selection
- Short Thread - Interposition Grafting
- Long Thread - Distal Pole Fracture

Fracture Stabilization
- Prior to drilling, a second wire inserted parallel to K-wire provides rotational stability.

Distal Pole Visualization
- Use Scaphoid Elevator to lift and mobilize the scaphoid tubercle away from the trapezium.

Secure K-wire
- A Pin Clamp secured to the end of the K-wire will avoid inadvertent withdrawal of the wire during drilling.
All implants made from surgical grade titanium

<table>
<thead>
<tr>
<th>Screw</th>
<th>Length</th>
<th>Thread</th>
<th>Head</th>
<th>K-wire</th>
<th>Wire Depth Gauge</th>
<th>Drill Guide</th>
<th>Drill</th>
<th>Countersink</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>S30xx</td>
<td>Short Thread</td>
<td>16–28mm*</td>
<td>3.0mm</td>
<td>WIRE-1.1/150</td>
<td>GAUGEWIR-1.6/150</td>
<td>GUIDE-1.1/2.1</td>
<td>DRILL-2.1/100C S</td>
</tr>
<tr>
<td>3.0</td>
<td>L30xx</td>
<td>Long Thread</td>
<td>3.0mm</td>
<td>4.0mm</td>
<td>WIRE-1.1/150D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 2mm increments available

The technique presented is one suggested surgical technique. The decision to use a specific implant and the surgical technique must be based on sound medical judgment by the surgeon that takes into consideration factors such as the circumstances and configuration of the injury.