
Unique distal locking

Improved stability

Advanced nail design
**Expert Retrograde/Antegrade Femoral Nail.** New Versatile System for Treatment of Diaphyseal and Metaphyseal Fractures.

**Advanced nail design**

The new nail design offers great flexibility:
- One system for retrograde and antegrade technique
- One system for left and right femur
- Anatomic bend for ease in insertion and extraction
- Cannulation of all nails for guided insertion in reamed and unreamed technique
- Large portfolio with nail diameters ranging from Ø 9 to 15 mm and lengths ranging from 160 to 480 mm
- Versatile locking configuration for static, dynamic, standard and spiral blade locking.

*retrograde R/FN, 160–200 mm straight*

*retrograde R/FN, 220–280 mm antecurvature 1500 mm*

*retrograde R/AFN, 300–480 mm antecurvature 1500 mm*

*antegrade R/AFN, 300–480 mm antecurvature 1500 mm*
Unique distal locking options

The unique distal combination hole enables the optimal locking for every anatomical situation and fracture type. The surgeon can intraoperatively choose between spiral blade locking (with one spiral blade and one locking screw) and standard locking (with two locking screws).

The end cap with self-retaining Stardrive recess allows for angular stable locking of the most distal locking implant in both configurations.

Improved stability

**End Caps:**
- Self-retaining Stardrive recess for effortless and secure end cap pick-up and insertion
- Possibility to block spiral blade or most distal (retrograde) or most proximal locking screw (antegrade) for absolute angular stability

**Locking Screws:**
- Double thread for more contact points leading to enhanced stability
- Larger cross-section for improved mechanical resistance
- Thread closer to screw head providing better bone purchase and improved stability
- Self-holding Stardrive recess for effortless and secure locking screw pick-up

**Spiral Blades:**
- Optimal hold in osteoporotic bone by increased surface area
- Angular stable locking by end cap
- Titanium alloy TAN for improved mechanical and fatigue properties

- Titanium alloy TAN for improved mechanical and fatigue properties
- Adapted locking screw diameter to nail diameter:
  - Ø 5 mm for nails Ø 9–13 mm
  - Ø 6 mm for nails Ø 14 and 15 mm

**End Caps:**
- End cap prevents ingrowth of tissue and facilitates nail removal.

**Locking Screws:**
- Double thread for more contact points leading to enhanced stability
- Larger cross-section for improved mechanical resistance
- Thread closer to screw head providing better bone purchase and improved stability
- Self-holding Stardrive recess for effortless and secure locking screw pick-up

**Spiral Blades:**
- Optimal hold in osteoporotic bone by increased surface area
- Angular stable locking by end cap
- Titanium alloy TAN for improved mechanical and fatigue properties

- Titanium alloy TAN for improved mechanical and fatigue properties
- Adapted locking screw diameter to nail diameter:
  - Ø 5 mm for nails Ø 9–13 mm
  - Ø 6 mm for nails Ø 14 and 15 mm
**Indications for retrograde approach**

In retrograde approach, the Expert Retrograde/Antegrade Femoral Nail is indicated for fractures in the distal femur:
- 33-A1/A2/A3
- 33-C1/C2/C3

For the 33-C fractures, the Expert Retrograde/Antegrade Femoral Nail should be used in combination with other implants (not shown in the illustration).

Additionally, the Expert Retrograde/Antegrade Femoral Nail is indicated for fractures in the femoral shaft:
  in case of:
  - combination with fractured patella
  - ipsilateral femur/tibia fractures (floating knee)
  - combination with fractured acetabulum, pelvis, or femoral neck
  - combinations of the fractures mentioned above
  - pronounced adipositas
  - pregnancy
  - polytrauma (if numerous surgical teams are involved in treatment of patient)

**Indications for antegrade approach**

In antegrade approach, the Expert Retrograde/Antegrade Femoral Nail is indicated for fractures in the femoral shaft:

**Note:** In case of osteoporotic bone, it is strongly recommended to utilise spiral blade locking in the distal femur.
Cases

Case 1: Retrograde – Standard Locking

Case 2: Retrograde – Spiral Blade Locking

Case 3: Antegrade – Standard Locking
**Expert Retrograde/Antegrade Femoral Nail.** New Versatile System for Treatment of Diaphyseal and Metaphyseal Fractures.

## Implants

<table>
<thead>
<tr>
<th><strong>Expert Retrograde/Antegrade Femoral Nails, cannulated</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 9 to 13 mm, length 160 to 480 mm (20 mm increments), light green, unsterile and sterile</td>
<td></td>
</tr>
<tr>
<td>Ø 14 and 15 mm, length 160 to 480 mm (20 mm increments), aqua, sterile only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Spiral Blades for Expert Retrograde/Antegrade Femoral Nails</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiral Blades, length 45 to 100 mm (5 mm increments), gold, unsterile and sterile</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Locking Screws Stardrive T25 for Expert Retrograde/Antegrade Femoral Nails</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 5 mm, length 26 to 100 mm (2 to 5 mm increments), light green, unsterile &amp; sterile (for nails Ø 9 to 13 mm)</td>
<td></td>
</tr>
<tr>
<td>Ø 6 mm, length 26 to 100 mm (2 to 5 mm increments), aqua, sterile only (for nails Ø 14 and 15 mm)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>End Caps for Expert Retrograde/Antegrade Femoral Nails</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>End Cap for Spiral Blade Locking, extension 0 mm, gold, unsterile and sterile</td>
<td></td>
</tr>
<tr>
<td>End Caps for Standard Locking, extension 0 to 20 mm (5 mm increments), grey, unsterile and sterile</td>
<td></td>
</tr>
</tbody>
</table>