EXCEEDING THE HIGHEST STANDARDS YOURS.
We’re hip & femur fracture specialists - providing the broadest portfolio of best in class products and services, unparalleled expertise, and the most expansive resources in the industry. You never know what your next patient may require; that’s why you trust us to support everything you might need.
TFN-ADVANCED™ PROXIMAL FEMORAL NAILING SYSTEM (TFNA)

The TFNA system is designed to advance hip fracture treatment with surgical options to enhance implant stability in poor bone and improved fit and strength. It incorporates the best elements of our highly successful global hip nails, optimized through input from hundreds of surgeons around the world. The TFNA System truly is a global platform that delivers modern innovation.

IMPROVED FIT AND STRENGTH

TIMO TITANIUM ALLOY & BUMP CUT DESIGN

Provides improved fatigue strength when compared with existing nails of similar size.

ANATOMIC 1.0M RADIUS OF CURVATURE

Mean total surface area of nail protrusion is 29% less than Gamma3.

FATIGUE LIMIT STUDY

The chart shows a comparison of the fatigue limits of TFNA, Gamma3, and Intertan. TFNA outperforms both with a 24% difference and a 47% difference compared to Gamma3 and Intertan, respectively.

TFN-ADVANCED™ PROXIMAL FEMORAL NAILING SYSTEM (TFNA)

IMPROVED FIT AND STRENGTH

LATERAL RELIEF CUT™ & SMALL PROXIMAL DIAMETER

Preserves bone in insertion area due to reduced critical width.

MEDIAL FEMORAL VIEW

Superior Force Absorbed

HELICAL BLADE TECHNOLOGY

Designed to improve implant anchorage, provide greater rotational stability and provide greater resistance to superior load when compared to a screw.

PREASSEMBLED LOCKING MECHANISM

Static or rotational locking options that can be selected intraoperatively.

AUGMENTABLE HEAD ELEMENTS

Through extensive bench testing, augmentation has demonstrated its ability to increase resistance to head element migration. Since 2010, three European multi-center trials with over 150 patients have published reporting no incidences of revision, unexpected head element migration or related complications.

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Compared to constructs with non-augmented head elements.

See pages 14 & 15 for information on the Hip Fracture Program.
FEMORAL NECK SYSTEM (FNS)

The Femoral Neck System (FNS) is designed for improved angular stability\textsuperscript{11} and rotational stability\textsuperscript{10} with the intent to reduce reoperations related to fixation complications.

ENHANCED FIXATION IN A COMPACT DESIGN

ROTATIONAL CONTROL

The FNS has up to a 40% increase in rotational stability when compared to a Sliding Hip Screw system\textsuperscript{14}.

GUIDED COLLAPSE

With a compact design, FNS is intended to minimize invasiveness on the patient including up to 20mm of guided collapse, without lateral protrusion of the bolt for the first 15mm.

ANGULAR STABILITY

A published biomechanical study shows that FNS offers 100% more resistance to varus collapse (leg/neck shortening) when compared to multiple cannulated screws\textsuperscript{11}.

HIP REPLACEMENT OPTIONS

Hemi Hip Arthroplasty

CORAIL\textsuperscript{®} Hip System\textsuperscript{*} with Self-Centering Endo Heads

The CORAIL\textsuperscript{®} Cementless Hip System is part of the CORAIL family of products. In a publication by Kendrick et. al., using a modern uncemented hip implant in a hemi-arthroplasty for intracapsular hip fracture provided satisfactory results, with a good rate of return to pre-injury place of residence and an acceptable mortality rate.\textsuperscript{12}

*CAUTION: CORAIL Dysplasia Size 6 Stem and CORAIL Cemented Stems are contraindicated for hemiarthroplasty surgery.

Total Hip Arthroplasty

CORAIL\textsuperscript{®} Hip System with PINNACLE\textsuperscript{®} Acetabular Cup System

The CORAIL\textsuperscript{®} Hip System with a PINNACLE\textsuperscript{®} Cup is one of the most widely used total hip constructs in the world. In 2017, the CORAIL Stem achieved over 2 million unit sales worldwide and the PINNACLE Cup reached over 2.5 million unit sales worldwide since their introduction.\textsuperscript{13,14}

TARGETED INSERTION HANDLE

All steps of the procedure can be completed after placement of one central guide wire into the femoral head, enabling a repeatable approach.
With the introduction of the Femoral Recon Nail, DePuy Synthes offers a portfolio with the choice of most used entry points. The FRN System offers the choice of Piriformis Fossa (PF) or Greater Trochanter (GT) entry points and extensive locking options to accommodate varying surgical preferences while enabling the treatment of a range of fracture complexity. FRN was designed for anatomical fit with a 1.0m radius of curvature and short proximal nail end to better fit patient anatomy.

**FEMORAL RECON NAIL (FRN)**

**ANATOMICAL FIT**

**LOWER PROXIMAL NAIL PROMINENCE**

Short proximal nail end designed to reduce risk of nail prominence compared to nails with a longer nail end (i.e. Zimmer PF)

**ANATOMIC 1.0M RADIUS OF CURVATURE (ROC)**

1.0m anatomic bow designed to help avoid impinging anterior cortex compared to nails with larger radius of curvature

**EXTENSIVE LOCKING OPTIONS**

**PROXIMAL LOCKING**

Choice of standard locking, reconstruction locking or combined with proximal dynamization option

**DISTAL LOCKING**

Four locking options including:
- An A/P hole
- Distal dynamization option
- An oblique distal locking hole offset 10 degrees

**CHOICE OF ENTRY POINTS**

**GREATER TROCHANTER OR PIRIFORMIS FOSSA**

Accommodates surgeon preference

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Simulated competitor nail with 1.5m ROC

DePuy Synthes PF Femoral Recon Nail
3.5MM LOCKING ATTACHMENT PLATE

As an alternative to cerclage cables, the 3.5mm Locking Attachment Plate (LAP) preserves the periosteal blood supply and bypasses a prosthesis stem with an angular stable solution.18,19

PROVIDES STIFF, BICORTICAL FIXATION FOR INCREASED ROTATIONAL STABILITY
- LAP provides a stronger, stiffer construct than an orthopedic cable20
- Locking capability advantageous in osteopenic bone where screw purchase is compromised
- Contourable to accommodate patient’s anatomy

COMPATIBLE WITH EXISTING DEPUY SYNTHES 4.5MM LCP PLATES INCLUDING VA-LCP PLATES
- Attaches to plate via a dedicated connection screw at the locking hole of the plate
- Available in 4-hole and 8-hole, in stainless steel and titanium

ORTHOPAEDIC CABLE SOLUTIONS

Comprehensive surgical options for cerclage fixation in joint reconstruction and trauma procedures

CABLES FEATURE A UNIQUE WEAVE DESIGN TO ALLOW FOR GREATER FLEXIBILITY AND CONTROL
1.7 mm diameter, available in 316L stainless steel with stainless steel crimp and L605 cobalt chromium alloy with titanium crimp

TROCHANTERIC REATTACHMENT DEVICE OPTION
For reattachment of the greater trochanter following osteotomy in total hip arthroplasty or fracture
- Large proximal hooks grip the greater trochanter, securing its location while resisting superiorly directed forces
- Preassembled with 1.7 mm CoCr cables and titanium crimps
- Crimps reside in plate for easy access, handling, and cable alignment
- Available in TAN and in two lengths

Cable Positioning Pins secures cable to the plate and prevents cable migration
**REAMER IRRIGATOR ASPIRATOR (RIA)**

RIA is a proprietary single-pass reaming and a bone harvesting system designed to reduce fat embolism and thermal necrosis that can occur during reaming/nailing of long-bone fractures.

**RAPID, EFFICIENT REAMING**
- Time saving, one-step procedure
- Sharp reamer heads for optimized cutting

**LOWER PAIN SCORE**
- Reduced complication rates compared to iliac crest bone graft (ICBG) harvesting
- Reported lower mean pain scores for RIA donor sites when compared to ICBG donor sites across 60 weeks

**IMPROVED SAFETY**
- Demonstrated to reduce heterotopic ossification, fat embolization, pulmonary insult and thermal necrosis compared to standard reaming

**CLEARS CANAL**
- Removes infected and necrotic bone tissue

**AUTOGRAPH RECOVERY**
- Provide an efficient method for obtaining large volumes of autologous bone graft
- Produce bone graft with high concentration of viable cells and growth factors

**LOWER PAIN SCORE STUDY**

<table>
<thead>
<tr>
<th>Total Pain Score (Points)</th>
<th>RIA</th>
<th>ICBG</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;48 hrs</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>&gt;48 hrs to &lt; 3 months</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>&gt;3 months</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>&gt;6 months</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**IRRIGATION FLUID INFLOW**

**MORSELED BONE MARROW OUTFLOW**

**IRA**

**ICBG**
Delivering Results

Demonstrated measurable results at the OLVG Hospital in Amsterdam

**Program Components**

- **Implementation Support & Facilitation** by clinical subject matter experts
- **Implementation Toolbox** includes best practice materials to guide through implementation
- **On-site opportunity assessment** includes interviews with multi-disciplinary key stakeholders
- **Performance Dashboard and Diagnostic Health Check** to track data, visualize progress and benchmark

**Care4Today® Hip Fracture Program**

An evidence-based care improvement program for the elderly fragility fracture patient population that facilitates interdisciplinary care coordination and clinical standardization to reduce variation and costs, improve outcomes and optimize care.\(^{33,34}\)

- **Solving starts with listening.**

Our **Patient Pathway capabilities** are built with the patient at the centre to help ensure patients receive consistent, coordinated care, whilst supporting patients to take control of their own treatment and recovery.
15. DePuy Synthes Trauma. Femoral Shaft Nailing Standard vs Recon (Primary market research, n=800), #0000265342, 2017
33. Sagl HC, Young ML, Gerstenfeld L, Einhorn TA, Tornetta P. Qualitative and quantitative differences between bone graft obtained from the medullary canal (with a reamer/irrigator/aspirator) and the iliac crest of the same patient. J Bone Joint Surg Am. 2012; 94(3):2128-2135.