Eleganz™

IM Threaded Nail System

Surgical Technique | Hand

Dev4™

DEVELOPED 4 EXTREMITIES

Eleganz™ Design Rationale

The hand is one of the most intricate and frequently utilized components of the musculoskeletal system, requiring fixation solutions that deliver precision, stability, and efficiency. Developed in collaboration with leading surgeons, the **Dev4 Eleganz™ IM Threaded Nail System** is a fully threaded, non-compressive, cannulated intramedullary nail system engineered specifically for metacarpal and phalangeal fractures.

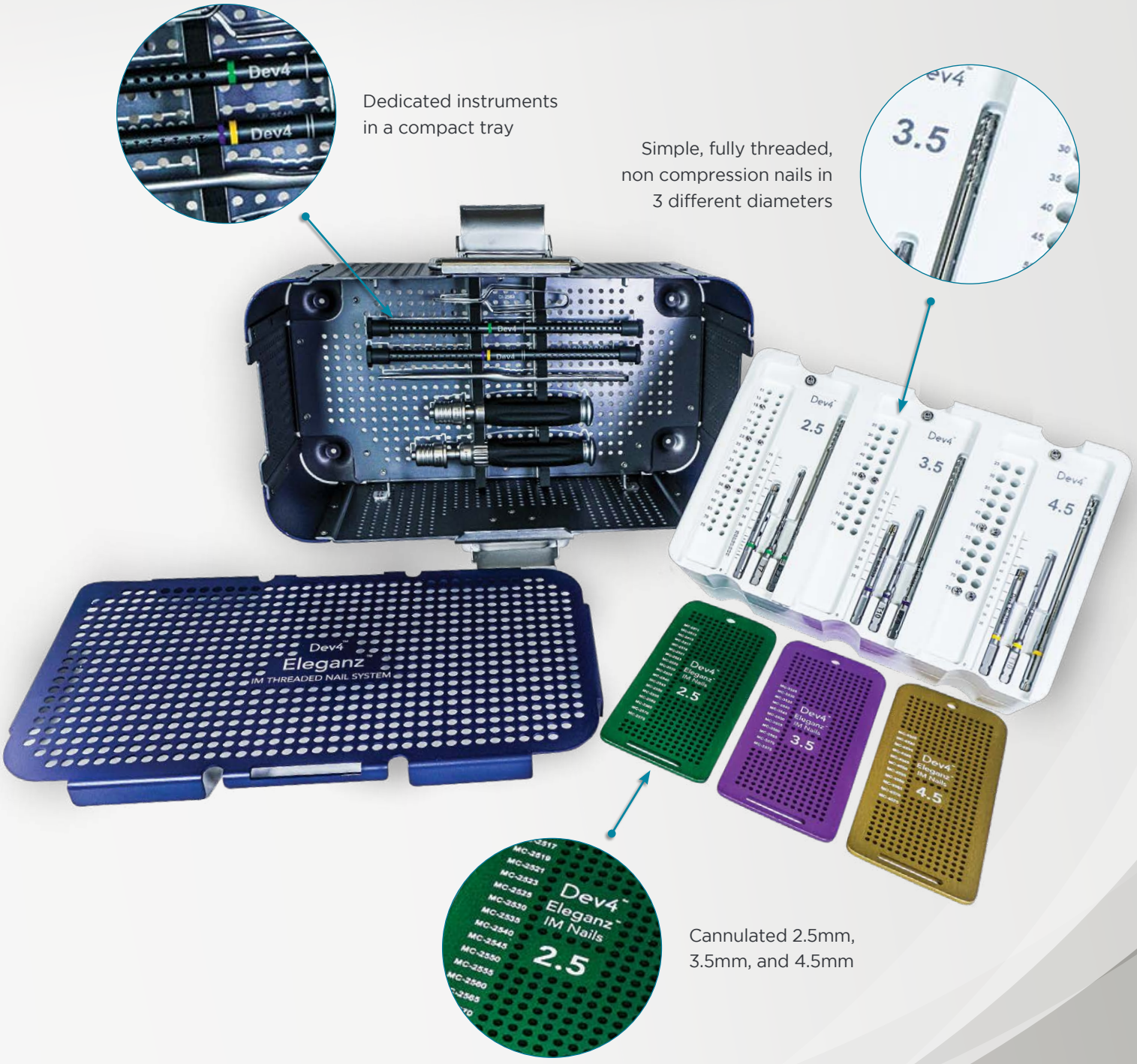
Manufactured from 316 stainless steel, the **Eleganz™ IM Threaded Nail System** is designed to support a simple, minimally invasive surgical approach while providing reliable fixation across a broad range of fracture patterns. Nail options are available in 2.5mm, 3.5mm, and 4.5mm diameters, with lengths ranging from 11mm to 75mm, allowing surgeons to accurately match patient anatomy and intramedullary canal geometry.

The system's comprehensive design precisely fits the intramedullary canal and incorporates a patent-pending hoop stress reduction feature intended to maintain physiological anatomic length. This design stabilizes transverse, oblique, and comminuted fractures, delivering stable fixation and precise reduction for metacarpal and phalangeal applications.

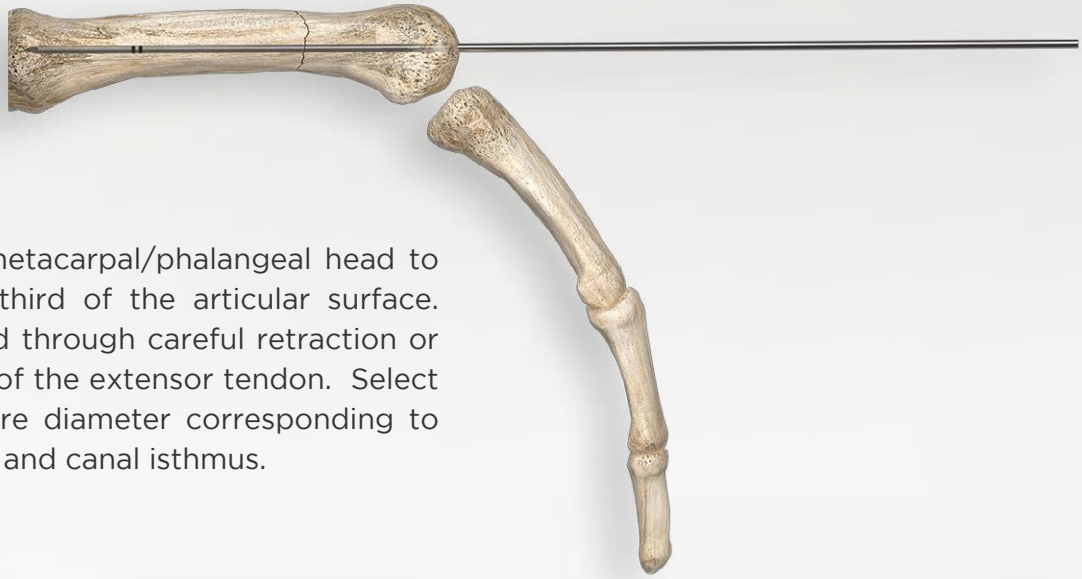
The **Eleganz™ IM Threaded Nail System** is indicated for the fixation of extra-articular fractures and nonunions of small bones and small bone fragments, offering surgeons a versatile, intuitive solution that supports consistent outcomes and facilitates a rapid return to functional recovery.

The following literature is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate product. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product's label and the electronic instructions for use at Dev-4.com.

The Eleganz™ Difference



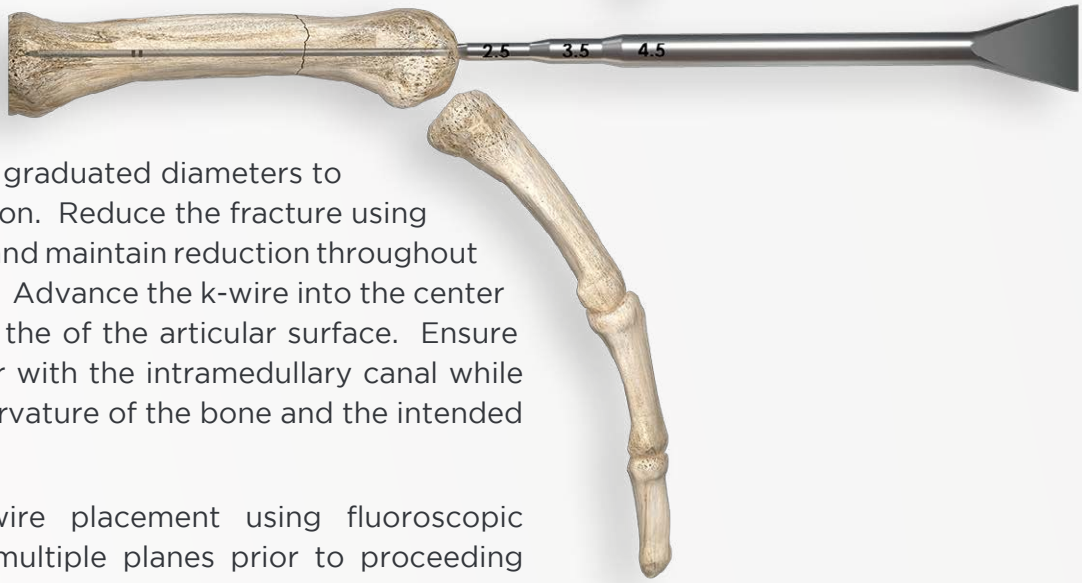
Cannulated Nail Technique



STEP 1

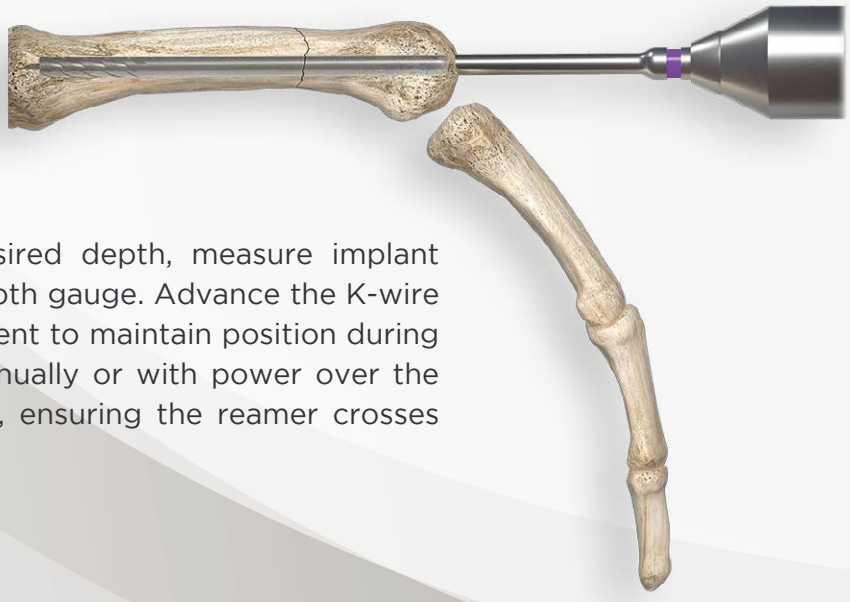
Exposure

Gain access to the metacarpal/phalangeal head to visualize the dorsal third of the articular surface. This may be achieved through careful retraction or longitudinal splitting of the extensor tendon. Select the appropriate K-wire diameter corresponding to the intended nail size and canal isthmus.



The depth gauge has graduated diameters to assist with nail selection. Reduce the fracture using standard techniques and maintain reduction throughout guidewire placement. Advance the k-wire into the center of the dorsal third of the of the articular surface. Ensure the K-wire is collinear with the intramedullary canal while accounting for the curvature of the bone and the intended nail trajectory.

Confirm proper K-wire placement using fluoroscopic imaging (C-arm) in multiple planes prior to proceeding with canal preparation or implant insertion.

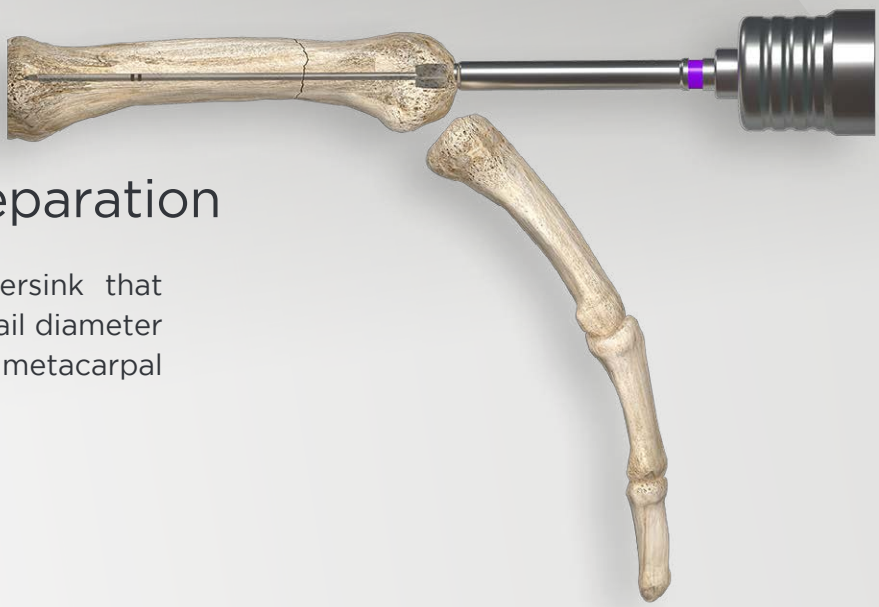


STEP 2

Canal Preparation

With the K-wire at the desired depth, measure implant length using the supplied depth gauge. Advance the K-wire into the adjacent bone segment to maintain position during canal preparation. Ream manually or with power over the K-wire to the desired depth, ensuring the reamer crosses the fracture site.

STEP 3



Metacarpal head preparation

Select the appropriate countersink that corresponds with the chosen nail diameter and manually countersink the metacarpal or phalangeal head surface.

STEP 4

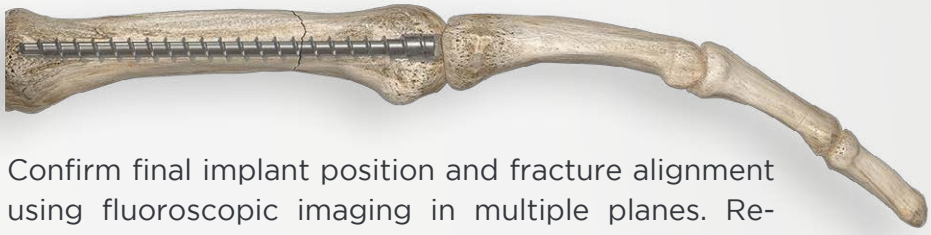
Nail Placement

Insert the nail over the K-wire. Using the corresponding driver, advance the nail by hand into the intramedullary canal to the desired depth. Ensure the nail head is recessed below the subchondral surface.

If excessive torque is required during nail insertion, reverse nail several turns then resume insertion or re-drill.

STEP 5

Implant Position & Closure



Confirm final implant position and fracture alignment using fluoroscopic imaging in multiple planes. Remove the K-wire.

Irrigate the surgical site. Repair the extensor tendon if split, and close soft tissues per standard technique.

Implants

2.5mm Threaded Nail

2.5 Threaded Nail, 11mm	MC-2511	**2.5 Threaded Nail, 35mm**	MC-2535
2.5 Threaded Nail, 13mm	MC-2513	**2.5 Threaded Nail, 40mm**	MC-2540
2.5 Threaded Nail, 15mm	MC-2515	**2.5 Threaded Nail, 45mm**	MC-2545
2.5 Threaded Nail, 17mm	MC-2517	**2.5 Threaded Nail, 50mm**	MC-2550
2.5 Threaded Nail, 19mm	MC-2519	**2.5 Threaded Nail, 55mm**	MC-2555
2.5 Threaded Nail, 21mm	MC-2521	**2.5 Threaded Nail, 60mm**	MC-2560
2.5 Threaded Nail, 23mm	MC-2523	**2.5 Threaded Nail, 65mm**	MC-2565
2.5 Threaded Nail, 25mm	MC-2525	**2.5 Threaded Nail, 70mm**	MC-2570
2.5 Threaded Nail, 30mm	MC-2530	**2.5 Threaded Nail, 75mm**	MC-2575

3.5mm Threaded Nail

3.5 Threaded Nail, 25mm	MC-3525	**3.5 Threaded Nail, 55mm**	MC-3555
3.5 Threaded Nail, 30mm	MC-3530	**3.5 Threaded Nail, 60mm**	MC-3560
3.5 Threaded Nail, 35mm	MC-3535	**3.5 Threaded Nail, 65mm**	MC-3565
3.5 Threaded Nail, 40mm	MC-3540	**3.5 Threaded Nail, 70mm**	MC-3570
3.5 Threaded Nail, 45mm	MC-3545	**3.5 Threaded Nail, 75mm**	MC-3575
3.5 Threaded Nail, 50mm	MC-3550		

4.5mm Threaded Nail

4.5 Threaded Nail, 25mm	MC-4525	**4.5 Threaded Nail, 55mm**	MC-4555
4.5 Threaded Nail, 30mm	MC-4530	**4.5 Threaded Nail, 60mm**	MC-4560
4.5 Threaded Nail, 35mm	MC-4535	**4.5 Threaded Nail, 65mm**	MC-4565
4.5 Threaded Nail, 40mm	MC-4540	**4.5 Threaded Nail, 70mm**	MC-4570
4.5 Threaded Nail, 45mm	MC-4545	**4.5 Threaded Nail, 75mm**	MC-4575
4.5 Threaded Nail, 50mm	MC-4550		

Instruments

Eleganz™ IM Threaded Nail System *(EL-4500)*

Eleganz™ IM Threaded Nail System Tray *(MI-3091)*

Eleganz™ IM Threaded Nail System Screw Caddy *(MI-3090)*

0.8mm Kirschner Wire *(MI-2040)*

1.1mm Kirschner Wire *(MI-3540)*

K-Wire Tube 0.8mm *(MI-2099)*

K-Wire Tube 1.1mm *(MI-3599)*

K-Wire Tube Caps *(DI-2098)*

Reamer for 2.5 *(MI-2501)*

Reamer for 3.5 *(MI-3501)*

Reamer for 4.5 *(MI-4501)*

Countersink for 2.5 *(MI-2530)*

Countersink for 3.5 *(MI-3530)*

Countersink for 4.5 *(MI-4530)*

T7 Driver Bit for 2.5 *(MI-2525)*

T10 Driver Bit for 3.5 *(MI-3525)*

T10 Driver Bit for 4.5 *(MI-4525)*

Ratcheting Driver Handle *(DI-2522)*

Fixed Driver Handle *(DI-2524)*

Depth Gauge *(MI-2010)*

Pickup *(DI-2583)*

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