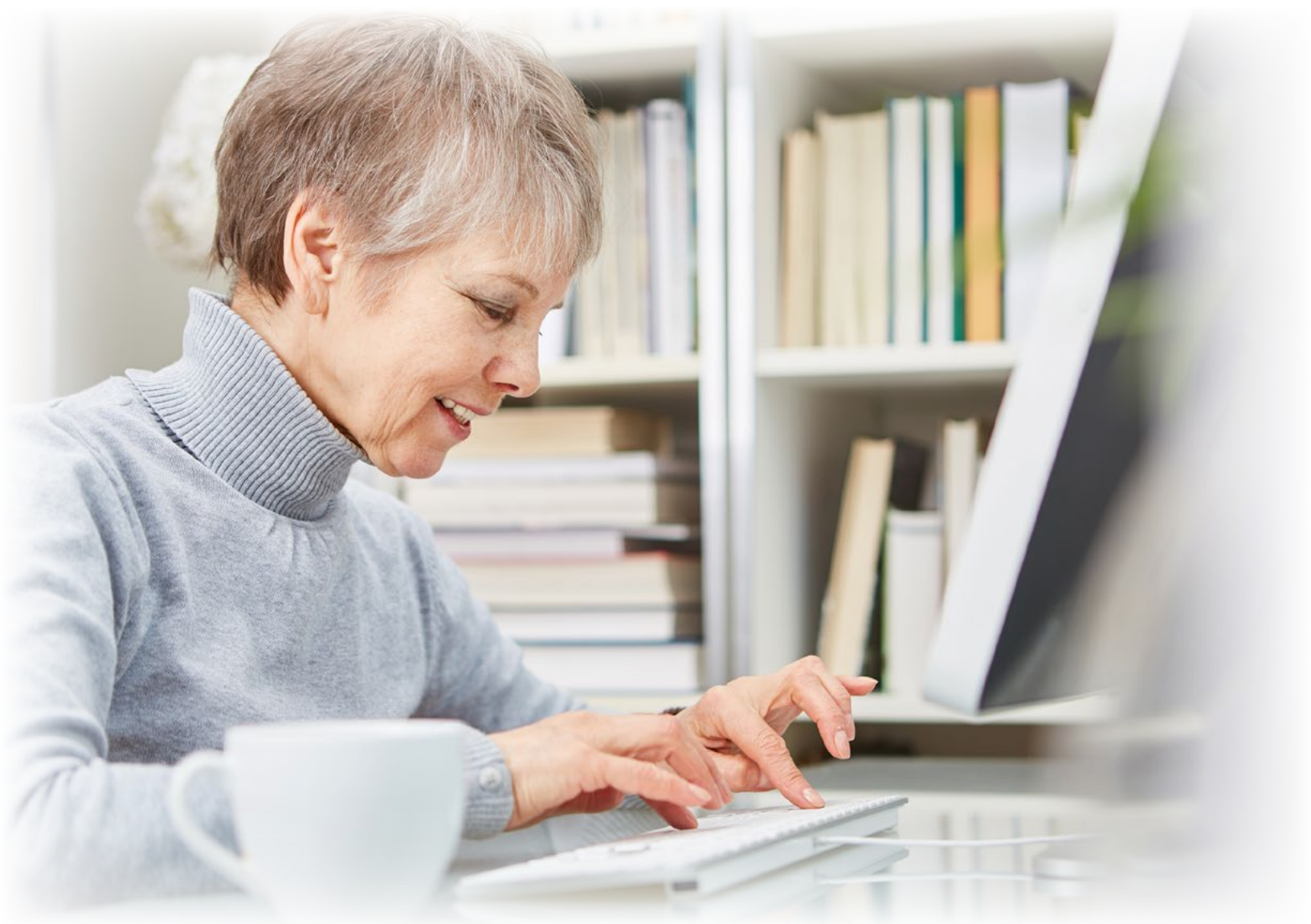




ArcPhix™

Surgical Technique Guide

The functional flexion compression screw for DIP joint fusions, designed by hand surgeons



EXSOMED™
an  acumed® company

INDICATIONS FOR USE

The ArcPhix functional flexion compression screw is indicated for use in the surgical fixation of small bones, bone fragments and osteotomies. The device is not indicated for soft tissue fixation.

The sterile, single use system includes a stainless steel implant with all necessary instrumentation to perform the case.

DESIGN RATIONALE

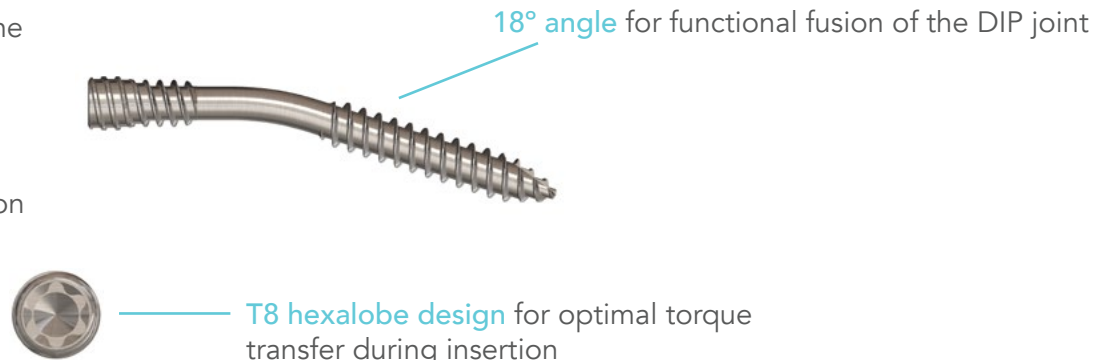
Late stage arthritis in phalangeal joints presents a variety of challenges for physicians. Although current treatment methods provide suitable outcomes, there is a likelihood of inadvertently producing a straight distal interphalangeal (DIP) joint fusion. These outcomes are not optimal.

Research has shown that when a patient's DIP joint is fused in a functional position, finger dexterity and grip strength improve over that of a patient with a straight, full extension fusion.¹ Physicians can achieve angled fusions by using K-wire fixation, however the immobilization protocol can lead to several complications and varied results. While compression screws may provide reliable DIP fusions, they do not offer the additional benefit of functional flexion.

To address this unmet need, ExsoMed has developed ArcPhix: an innovative angled compression screw for controlled functional flexion DIP fusions.

Specifically sized to optimally fit the anatomy of the distal and middle phalanges

Self-tapping tip for ease of insertion



Functional Fusion

- Angled screw allows for fusion of the DIP joint in a functional position

Stable Fixation

- Differential thread pitch facilitates compression across the DIP joint to create stability during bone fusion

Less Traumatic

- Percutaneous insertion method minimizes surrounding tissue damage upon implantation and avoids screw prominence

SURGICAL TECHNIQUE

1 INSERT GUIDEWIRE

Prepare the joint

Prepare the bones in a manner typical for fusion that allows for good apposition at the desired angle. To account for the 18 degree angle of ArcPhix, many surgeons utilize a cup and cone reamer technique.

Approach Option A: Retrograde guidewire insertion

- i. Align the distal and middle phalanges in a manner typical for standard intramedullary K-wire placement.
- ii. Insert the single trocar guidewire percutaneously in a retrograde fashion into the distal phalanx.
- iii. Confirm the distal and middle phalanges are aligned before advancing the guidewire past the DIP joint and into the middle phalanx.

Approach Option B: Antegrade guidewire insertion

- i. Insert the double trocar guidewire in an antegrade fashion into the center of the distal phalanx.
- ii. Advance the guidewire through the distal tip until the guidewire is distal to the DIP joint.
- iii. Align the distal and middle phalanges in a manner typical for standard intramedullary K-wire placement before you advance the guidewire, in a retrograde fashion, past the DIP joint and into the middle phalanx.

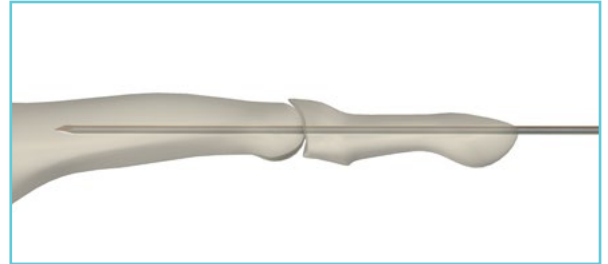
2 DRILL

Drill by passing the cannulated drill over the guidewire to the desired depth. The drill hole should be at least 16mm into the middle phalanx.

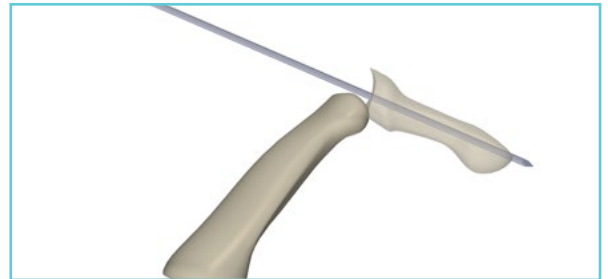
Do not drill past the proximal cortex of the middle phalanx.

Remove drill and guidewire.

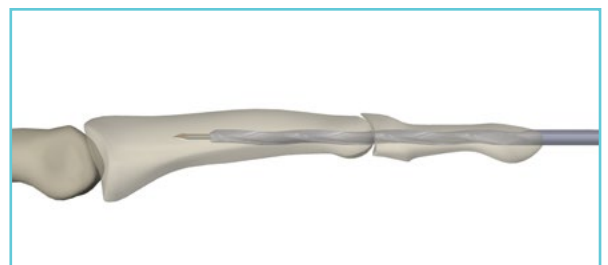
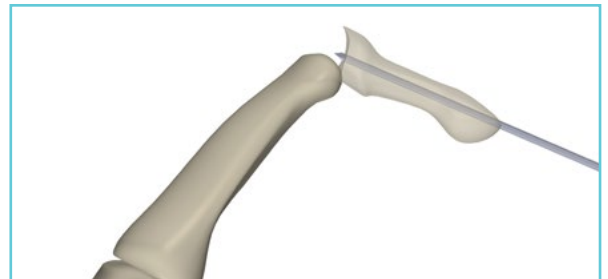
A. ii and iii.



B. i.



B. ii.



SURGICAL TECHNIQUE

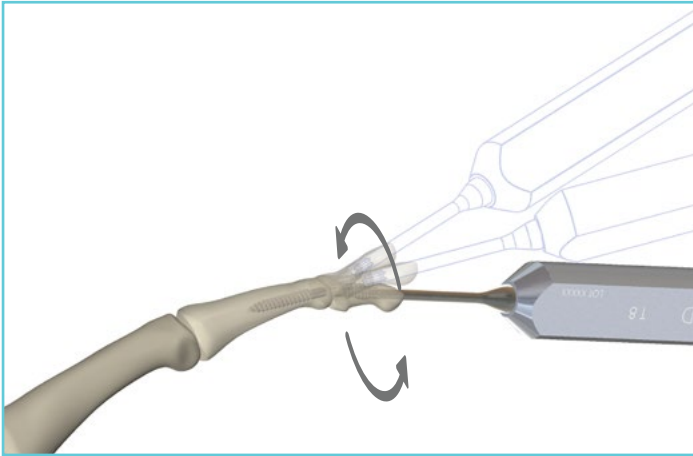
3 INSERT SCREW AND CONFIRM PLACEMENT

Place the tip of the screw into the pilot hole.

Advance the screw until the apex of the bend is across the DIP joint with the convex side of the screw facing dorsally.

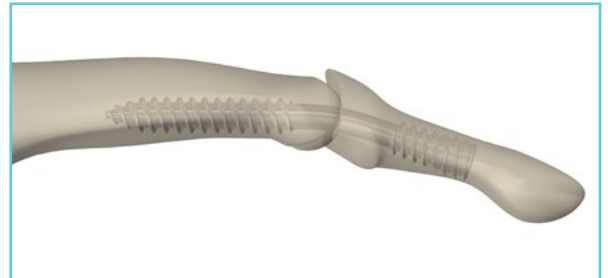
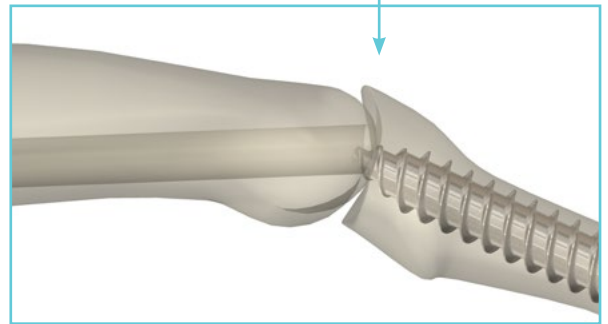
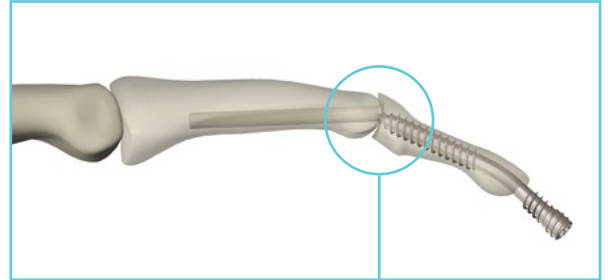
Note: Insertion of ArcPhix will require a 360 degree conical, wobble-like, motion (figure a) when using the driver. Care should be taken to ensure the leading portion of the screw rotates on its axis to advance into and past the DIP joint. After the angled portion of the screw enters the distal phalanx, the distal phalanx will also rotate in a 360 degree conical, wobble-like, motion around the DIP joint, which is normal.

a.

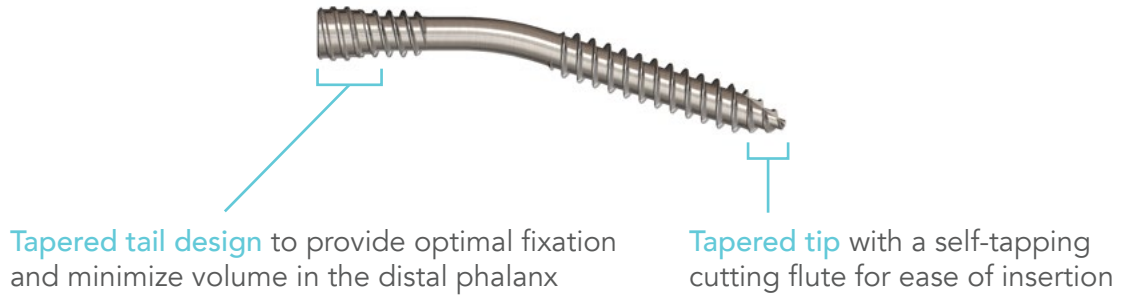


OR Tip: Manually hold reduction as the implant traverses the DIP joint and engages the middle phalanx to ensure proper placement.

Confirm proper placement radiographically.



2.0mm advancement per revolution for precise implant placement



T8 hexalobe design accommodates high torque during insertion

Accessories Included in Kit - Sterile Packed



T8 Driver



Cannulated Drill, 2.0mm



K-Wire, 6", Single Trocar, 0.035"



K-Wire, 6" Double Trocar, 0.035"

Introducing DIP Joint Fusion with Functional Flexion™

ORDERING INFORMATION

The ArcPhix System Disposable Kit

EXARC903028

3.0mm x 28mm Implant

Accessories Included in Kit

- 1 ArcPhix Implant
- 1 Guidewire, Single Trocar, 0.035" x 6"
- 1 Guidewire, Double Trocar, 0.035" x 6"
- 1 Cannulated Drill, 2.0mm
- 1 Driver, T8

References

1. Eitan Melamed, MD, Daniel B. Polatsch, MD, Steven Beldner, MD, Charles P. Melone, Jr, MD Scientific Article. Simulated Distal Interphalangeal Joint Fusion of the Index and Middle Fingers in 0 degree and 20 degrees of Flexion: A Comparison of Grip Strength and Dexterity. J Hand Surg Am. 2014;39(10): 1986-1991.



Acumed Headquarters
5885 NE Cornelius Pass Rd.
Hillsboro, Oregon 97124
Tel: 888 627 9957
www.acumed.net

ExsoMed and ArcPhix are trademarks of ExsoMed Corporation. ExsoMed™ Corporation is a wholly owned subsidiary of Acumed LLC. Acumed® is a registered trademark of Acumed LLC. These products are covered by one or more issued U.S. and global patents and/or patents pending.

© Copyright 2021 ExsoMed Corporation. All rights reserved.

This material is intended for health care professionals and the ExsoMed sales force only. Distribution to any other recipient is prohibited. All content herein is protected

by copyright, trademarks and other intellectual property rights owned by or licensed to ExsoMed or its affiliates unless otherwise indicated. This material must not be redistributed, duplicated or disclosed, in whole or in part, without the express written consent of ExsoMed.

Check product specific instructions for use. For complete product information, including indications, contraindications, warnings, precautions, and potential adverse effects, see the package insert and ExsoMed's website.

HNW10-17-A | Effective: 2023/06 | ©2023 Acumed® LLC