acumed®

Bone Graft Harvesting System

Product Overview

A COLSON ASSOCIATE

Acumed® Bone Graft Harvesting System

The Acumed Bone Graft Harvesting System facilitates safe, rapid harvest of morselized autogenous cancellous graft from the iliac crest, distal radius, and distal femur through a small skin incision. This compact bone graft harvesting system is designed to be easy to use and includes four drill size options, a power adapter fitting, a starting punch, and a removal key.

Typical Bone Graft Applications

- Arthroplasty
- Foot/Hand
- Maxillofacial
- Spine
- Trauma

Drill tip design morselizes cancellous bone during harvest

Bone Graft Punch

The punch is designed to create a starting point for the drill

Volume	cc (per pass)
6 mm Bone Graft Drill	0.5 cc
8 mm Bone Graft Drill	0.9 cc
10 mm Bone Graft Drill	1.6 cc
12 mm Bone Graft Drill	2.5 cc

Hudson Fitting Adaptor

Allows drill to be mounted

Bone Graft Extractor

The bone graft removal paddle is engineered to remove the graft from the inside of the drill

Cutting Drill

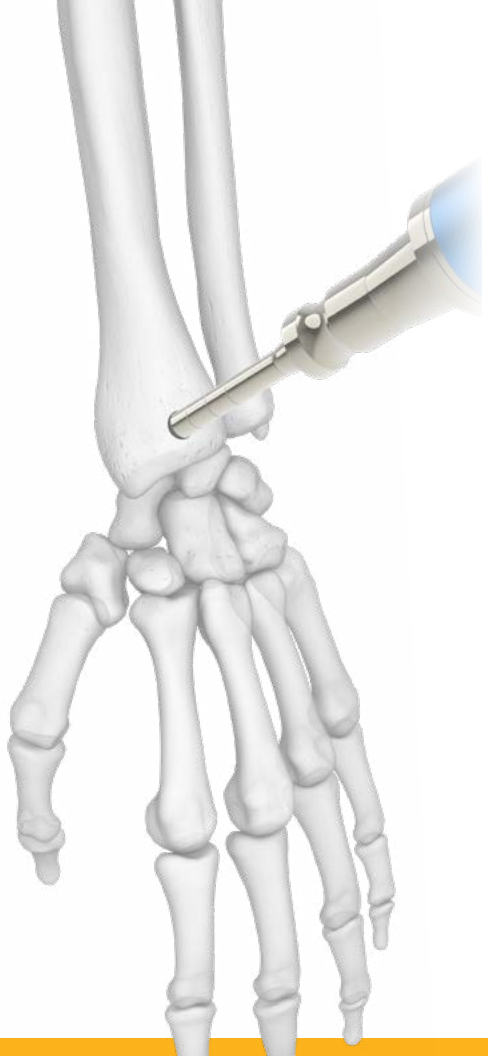
Each revolution of the drill cuts new cancellous bone and loads it into the body of the trephine

Removal Key

The key disconnects the bone graft drill from the adapter

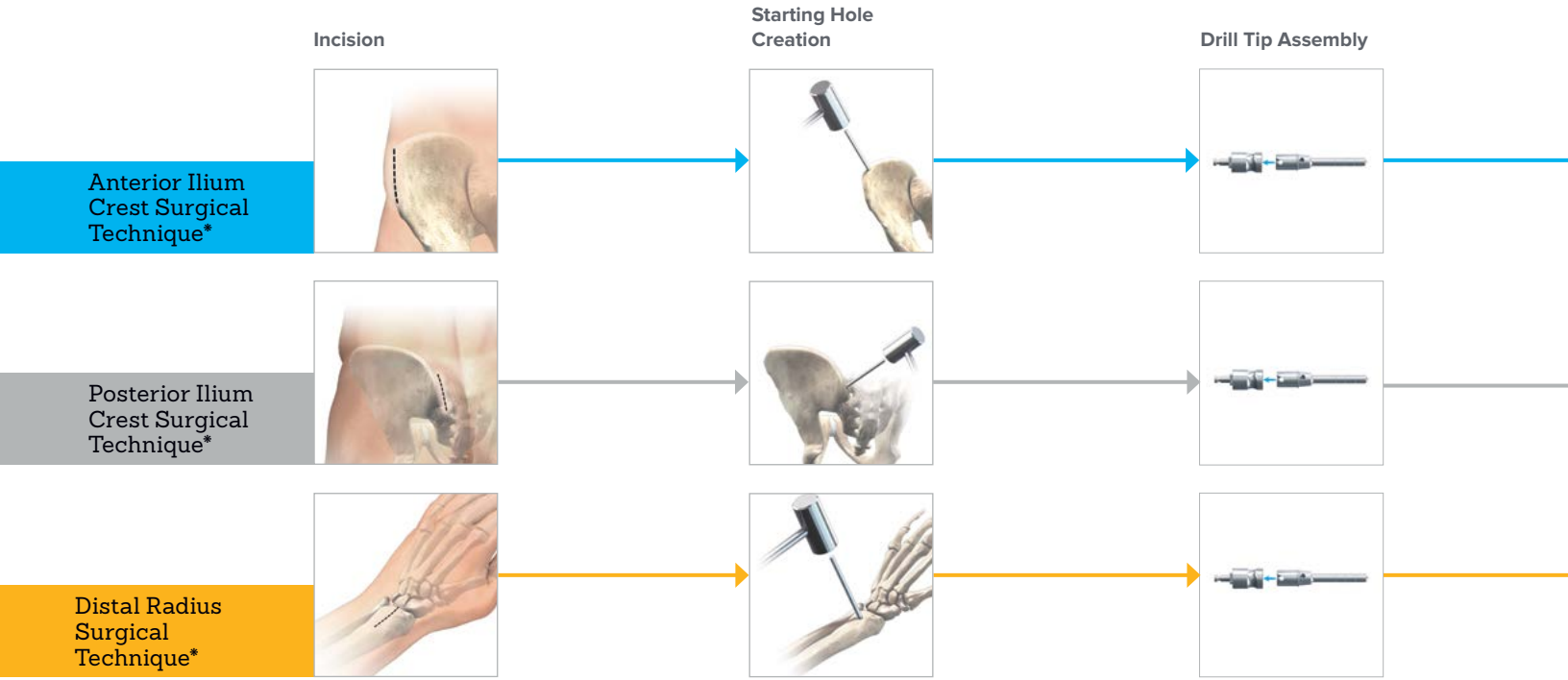
7 mm nonsterile drill with AO Quick Release (available separately)

	Autograft with Acumed Bone Graft Harvester	Allograft (Cancellous Chips, Corticocancellous Wedge)[1]	Synthetic Bone Graft Substitutes (e.g. Callos® Bone Void Filler)[1]	Osteoinductive Agents (e.g. DBM and rhBMP)[1,2]
Osteoconductive	✓	✓	✓	✓
Osteoinductive	✓			✓
Osteogenic	✓			
Clinical Evidence	+++	+	+	+++
Surgical Time & Effort	Low–Med	Low	Low-Med	Low
Donor Site Morbidity	Low–Med	None	None	None
Volume & Handling	1cc+	5 cc+	3 cc+	5 cc+
Cost per cc	$	$	$$	$$$

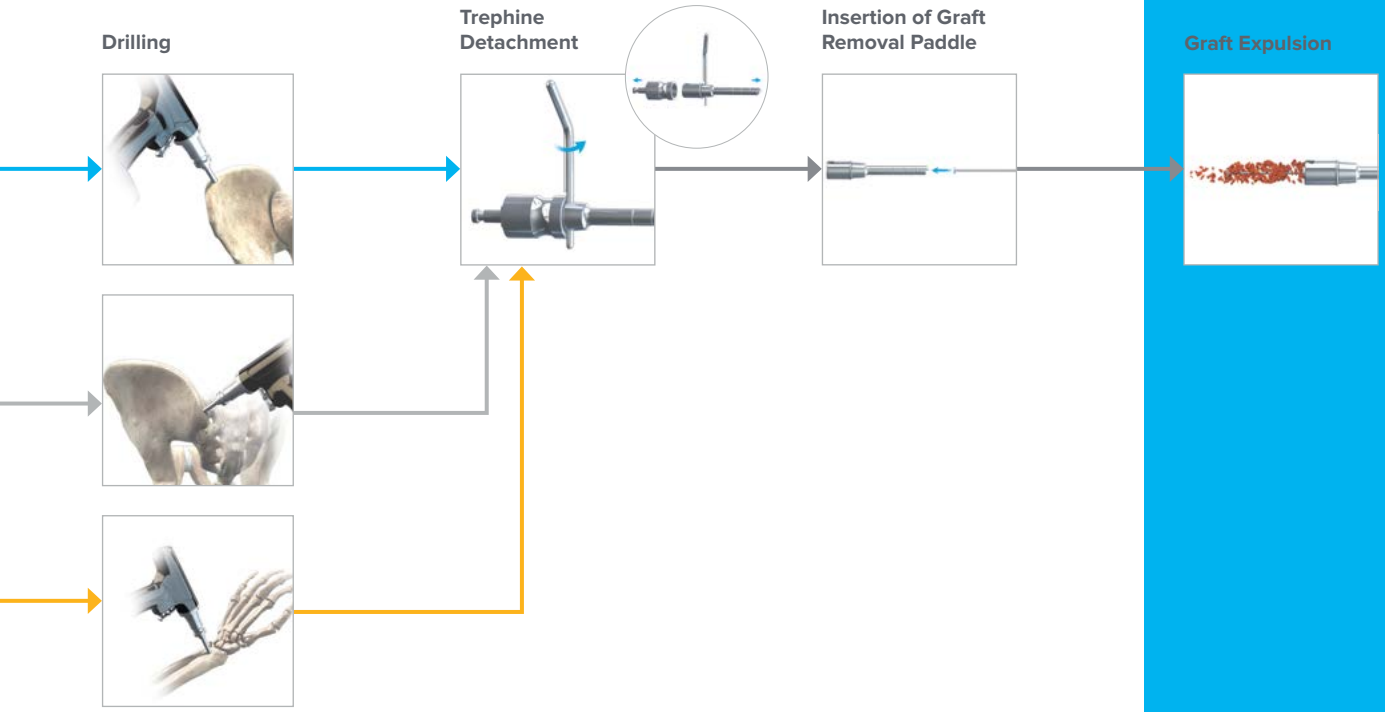


Material Comparison

	Advantages	Limitations
Autograft	▸ Has all mechanisms of bone healing (Osteoconductive, osteoinductive, and osteogenic) ▸ Optimal environment for bone fusion ▸ Inexpensive ▸ Gold Standard	▸ Bone graft quality variability ▸ Limited supply ▸ Additional surgical site ▸ Post-op pain
Allograft	▸ No donor site ▸ Osteoconductive ▸ Plentiful supply ▸ Available in various forms	▸ Sourced from donor tissue ▸ Variability in donor tissue ▸ Disease transfer ▸ Handling
Synthetic Bone Graft Substitutes	▸ No donor site ▸ Autograft extender and enhancer ▸ Physical properties highly reproducible ▸ Sterile-packed	▸ Expensive ▸ Variable resorption rates ▸ Limited clinical evidence ▸ Mechanical properties vary
Osteoinductive Agents	▸ Available in various forms ▸ Can be used with BMAC ▸ No donor site ▸ Can regulate production and activity of growth factors	▸ Ectopic bone formation ▸ Osteolysis ▸ Expensive ▸ Not osteogenic



*For reference only. For full instructions, see the current Bone Graft Harvesting System Surgical Technique.


Drilling
Trephine
Detachment
Insertion of Graft
Removal Paddle
Graft Expulsion

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BIO00-06-A | Effective: 2019/05 |

References

1. Klifto C, Gandi S, Sapienza A. Bone graft options in upper-extremity surgery. *J Hand Surg*. 2018;43(8):755-761.

2. Oryan A, Alidadi S, Moshiri A, Bigham-Sadegh A. Bone morphogenetic proteins: a powerful osteoinductive compound with non-negligible side effects and limitations. *Biofactors.* 2014;40(5):459-481.