FURUN MEDICAL

XDrill® Features and Advantages

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Clinical Application

Autologous bone is regarded as the "gold standard" for bone grafts [1-6]

Properties of Different Types of Bone Grafts [7]

Type of graft	Autologous cancellous bone graft	Bone marrow	Heterologous cancellous bone graft	DBM
Osteogenesis	+++	++	-	-
Osteoinduction	+++	+	+	-
Osteoconduction	+++	-	++	+
Immunogenicity	-	-	++	-
Extent of activity (-,+,++,+++) from none(-)to maximal(+++).				
DBM,demineralized bone matrix				

Current Bone Graft Options

Open Harvesting	Trephine reamer / Coring trephine	Intramedullary reaming system	BMAC combined with carrier matrix	Biologics
				
• Severe pain [8-12] • Big incision • Apparent trauma • High surgical morbidity [8-12] • Time-consuming [13]	• High manual effort required • User unfriendly • Limited bone harvest volume [14,15]	• Severe donor-site pain • Complication rate over 6% [16] • Apparent trauma • Large blood loss • Complex operation • Irrigation reduce biologic activity of the grinding bone debris [17]	• Added scaffold cost • Leave sterile field, increase risk of infection • Inferior to autograft [18] • Require dedicated technician	• Poor osteogenic • Increase the risk of rejection and infection

XDrill® Features and Advantages

Minimally Invasive

- Skin incison: **2-3cm**
- Bone window size: 8-10mm
- Blood loss: 10-20ml
- Post-op VAS score: **0-1(1 week)**

- Bone graft volume:
  7-15cc/time, repeated 30-50cc
  （Based on donor site bone volume）

- Operation time: 2-3min(automatic)
- No incidence of complications reported (5000+ clinical cases)

- Enrich bone graft substitutes

- Covers the majority of bone grafting applications

Clinical and Surgical Economics

- Reduce OR Turnover time, improve surgical efficiency

- Reduce the use of biologics, save materials cost of hospitals

- Shorten the average length of hospital stay, reduces hospitalization costs

- Reduce materials cost used on postoperative analgesia and other related procedures

XDrill® Suitable for Multi-site Bone Harvesting



Step1: Skin Incision&Exposure



Step2: Drill a Hole

Iliac Crest



Proximal Tibia



Distal Femur



Calcaneus



Step3: Harvest the Bone



Step4: Removal of Bone Graft

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