

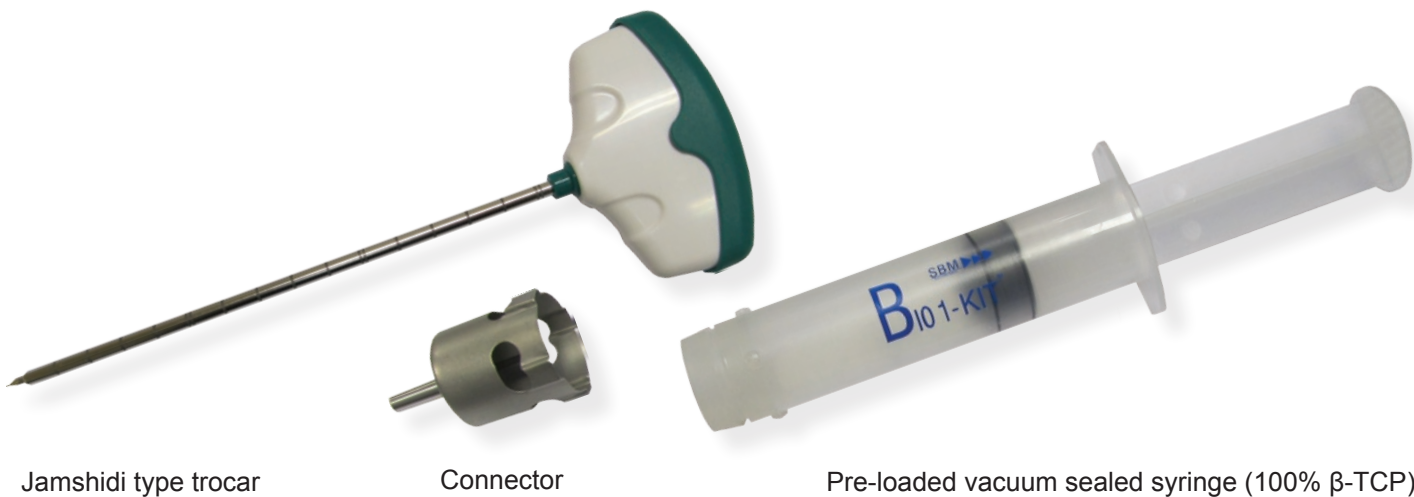
Bone void filling

System for bone marrow / β -TCP graft preparation

B_{IO} 1-KIT[®]

The benefits of autografting without its drawbacks ¹

The Bio 1-KIT[®] system offers a quick and simple way to combine bone marrow and Biosorb (Tricalcium Phosphate) for the bone graft. Harvesting and mixing are done in complete aseptic conditions which preserves the coagulum until graft placement. The Bio 1-KIT[®] system includes the following accessories:



Jamshidi type trocar

Connector

Pre-loaded vacuum sealed syringe (100% β -TCP)

Indications

- ▶ Postero lateral graft of the thoracic and lumbar spine
- ▶ Periprosthetic reconstruction
- ▶ Filling of various bone and cavities (benign tumors, bone cysts)
- ▶ Pediatric orthopedic surgery
- ▶ Pseudarthrosis
- ▶ Bone substitute for cervical and lumbar cage filling

Ordering information

Macroporous cubes

Codes	Designation	Packaging
SER2893222	Bio 1-KIT syringe - 4x4x4 mm (5 cc) macroporous cubes + accessories	1
SER2893224	Bio 1-KIT syringe - 4x4x4 mm (10 cc) macroporous cubes + accessories	1
SER2893226	Bio 1-KIT syringe - 4x4x4 mm (15 cc) macroporous cubes + accessories	1
SER2893228	Bio 1-KIT syringe - 4x4x4 mm (30 cc) macroporous cubes + accessories	1

Granules

Codes	Designation	Packaging
SER2692442	Bio 1-KIT syringe - \varnothing 1.5 mm (5 cc) granules + accessories	1
SER2692444	Bio 1-KIT syringe - \varnothing 1.5 mm (10 cc) granules + accessories	1
SER2692446	Bio 1-KIT syringe - \varnothing 1.5 mm (15 cc) granules + accessories	1
SER2692448	Bio 1-KIT syringe - \varnothing 1.5 mm (30 cc) granules + accessories	1
SER2692642	Bio 1-KIT syringe - \varnothing 3 mm (5 cc) granules + accessories	1
SER2692644	Bio 1-KIT syringe - \varnothing 3 mm (10 cc) granules + accessories	1
SER2692646	Bio 1-KIT syringe - \varnothing 3 mm (15 cc) granules + accessories	1
SER2692648	Bio 1-KIT syringe - \varnothing 3 mm (30 cc) granules + accessories	1

¹ Potential of an ultraporous β -tricalcium phosphate synthetic cancellous bone void filler and bone marrow aspirate composite graft
E. M. Erbe, J. G. Marx, T. D. Clineff, L. D. Bellincampi. Eur Spine J (2001) 10 :S141–S14 DOI 10.1007/s005860100287

Surgical technique

The BIO1-KIT® system is used to impregnate porous granules or macroporous cubes made of synthetic β -TCP with bone marrow in order to obtain an osteoinductive graft ¹. The impregnation of β Tricalcium Phosphate with bone marrow helps fix osteogenous cells, as well as bone growth and differentiation factors. In this way, graft integration and healing are accelerated ¹.



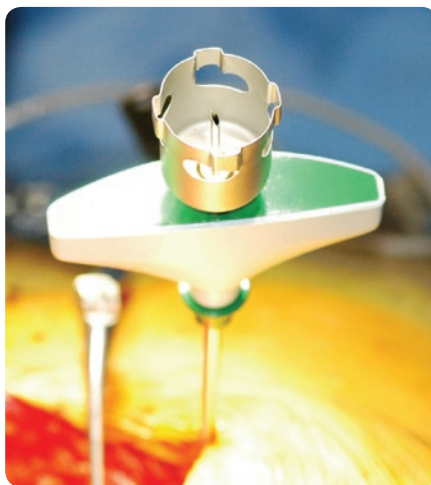
Watch the video

Step 1



Introduce the trocar into the cancellous zone of a bone containing the bone marrow to be punctured (e.g. iliac crest).

Step 2



Remove the stylet and connect the connector to the trocar.

Step 3



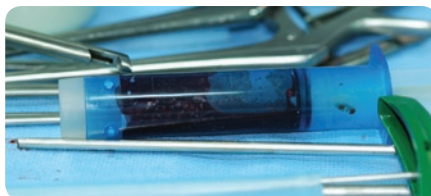
The syringe is vacuum sealed, which means that bone marrow is automatically aspirated as soon as the silicone plug is pierced.

Step 4



Allow for the syringe to automatically fill with bone marrow. If needed, aspiration can be terminated manually before disconnecting the syringe which is now filled with the bone marrow/Biosorb mix.

Step 5



Wait 15 to 20 minutes to allow for adequate coagulation.



Remove the silicone plug.

Step 6



Extrude the bone marrow/Biosorb mix which now constitutes a coagulum.

N.B.: To harvest large volumes, it may be necessary to modify the position of the trocar during aspiration. Should this prove necessary, disconnect the syringe from the connector, modify the position of the trocar, then reconnect the syringe to the connector to end aspiration.



Science & Bio Materials

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Carefully read the instructions for use that comes with the medical device or labeling provided to medical professionals.
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