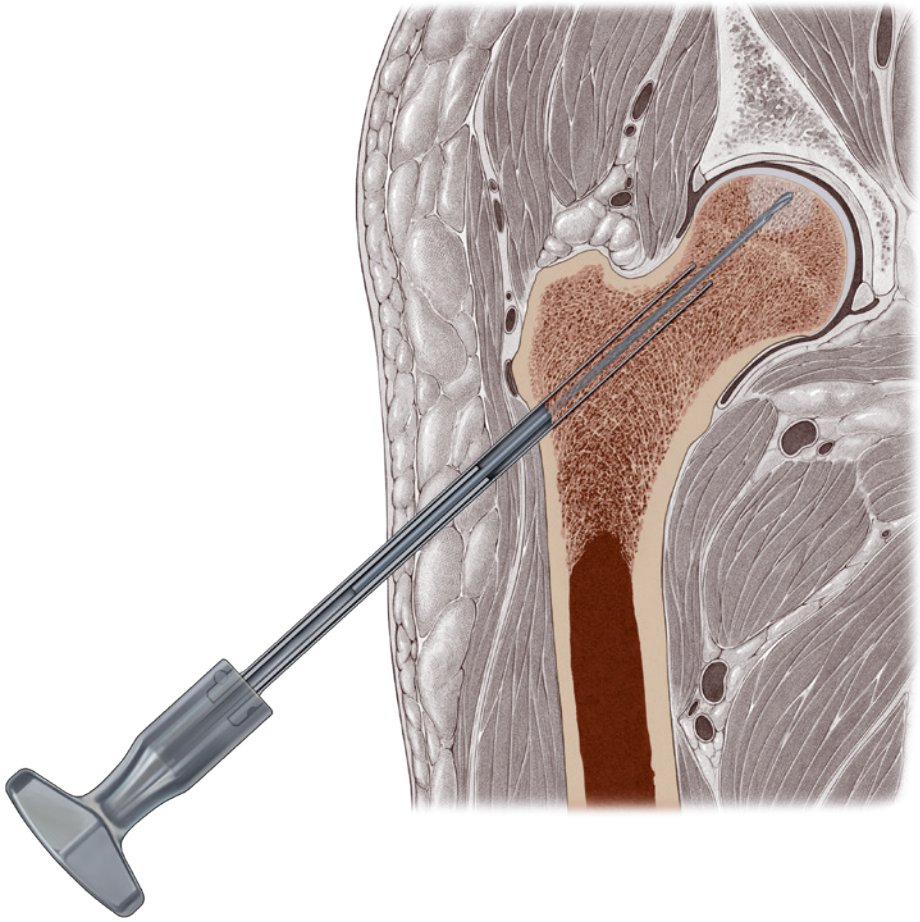

EBERLE

Hip

PBT
Piloted Bone Trephine

Removal Instrument Set

article no. 710020

- **Handle with locking pin**
  article no. 710000

- **Extraction tube**
  - inner-Ø 8 mm

- **Filling tube**

- **Tube-set** (sterile packaging)
  - single-use
    article no. 710021

- **Tissue protection tube**
  - inner-Ø 11 mm
  - length 150 mm
    article no. 710005

- **Introducer**
  article no. 710002

- **Pusher**
  article no. 710003

- **Curette for sampling**
  - length 250 mm
  - width 5.5 mm
    article no. 710006 [1.)]

- **Guide wire drill Ø 3.2 mm**
  - length 280 mm
    article no. 900307 [1.)]

- **Drill Ø 9 mm**
  - cannulated Ø 3.8 mm
  - length 280 mm
    article no. 900308 [1.)]

- **Hammer** (optional)
  - weight 240 g
  - Ø 30 mm
  - length 190 mm
    article no. 900461 [1.)]

- **Ring curette** (optional)
  - oval, 20° cranked
  - length 170 mm
    article no. 900339 [1.)]

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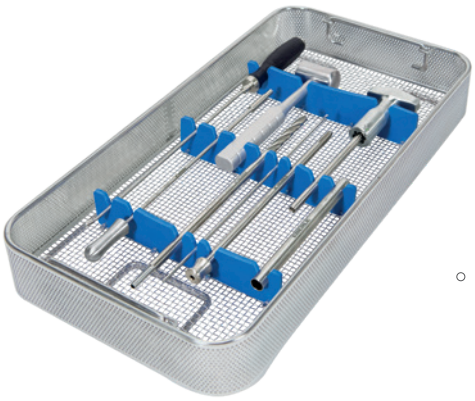


○ **Immersion basket** (without instruments)
article no. 900312 [1.)]

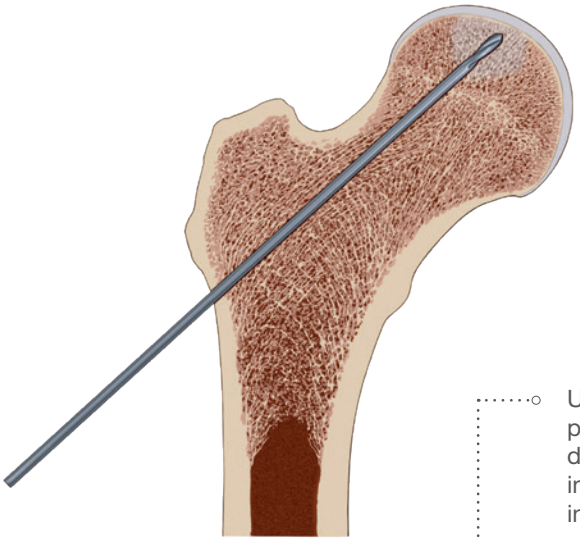
PBT
Piloted Bone Trephine

by Prof. Dr. med. Stefan Landgraeber

There are various approaches in the treatment of osteonecrosis of the femoral head which use autologous cancellous bone. Many of these procedures involve drilling the area of necrotic bone with a 9 mm drill (core decompression), and some also include additional evacuation of the necrotic bone.

The Piloted Bone Trephine is a useful supplementary instrument for core decompression which enables simpler and safe removal of cancellous bone from the femoral neck without further OP trauma.

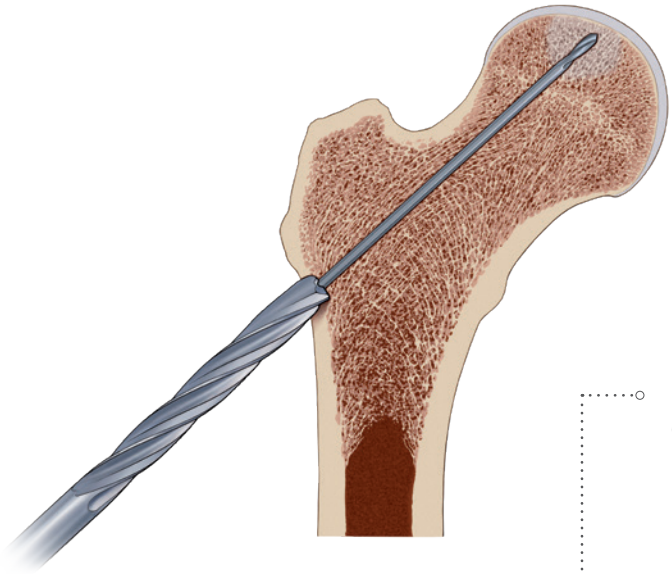
As in the core decompression procedure, a guiding wire is inserted, beginning at the tuberculum innominatum and extending into the area of necrotic bone. Using a cannulated 9 mm drill only the cortical bone is opened and the cancellous bone harvested. The special design of the hand grip ensures that the Piloted Bone Trephine is positioned accurately via the guiding wire in the targeted area of the femoral head. The core decompression procedure, and evacuation if required, can then be continued in the usual way.



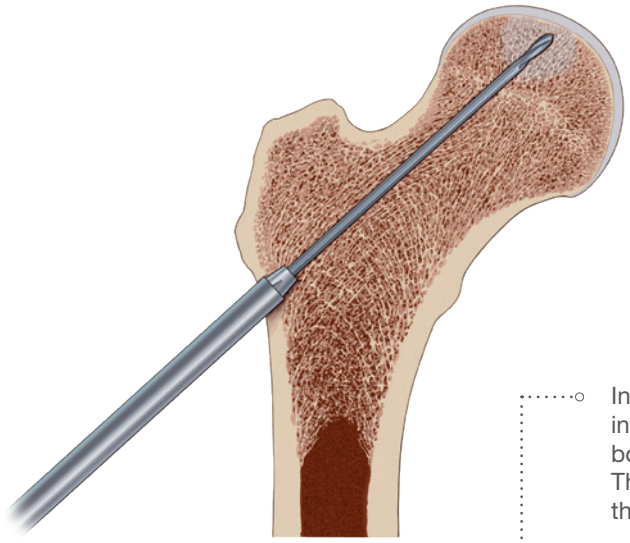
○ Under fluoroscopic guidance in both planes and using the 3.2 mm guide wire, drill into the centre of the necrotic bone in the femur starting at the tuberculum innominatum.

All other steps in the procedure should also be monitored under image intensification.

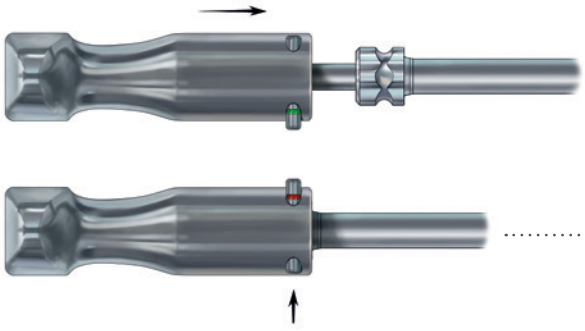
[1.)] distributed by Eberle GmbH & Co. KG



Using the 9 mm drill bit, overdrill the guide wire, opening only the cortical bone.

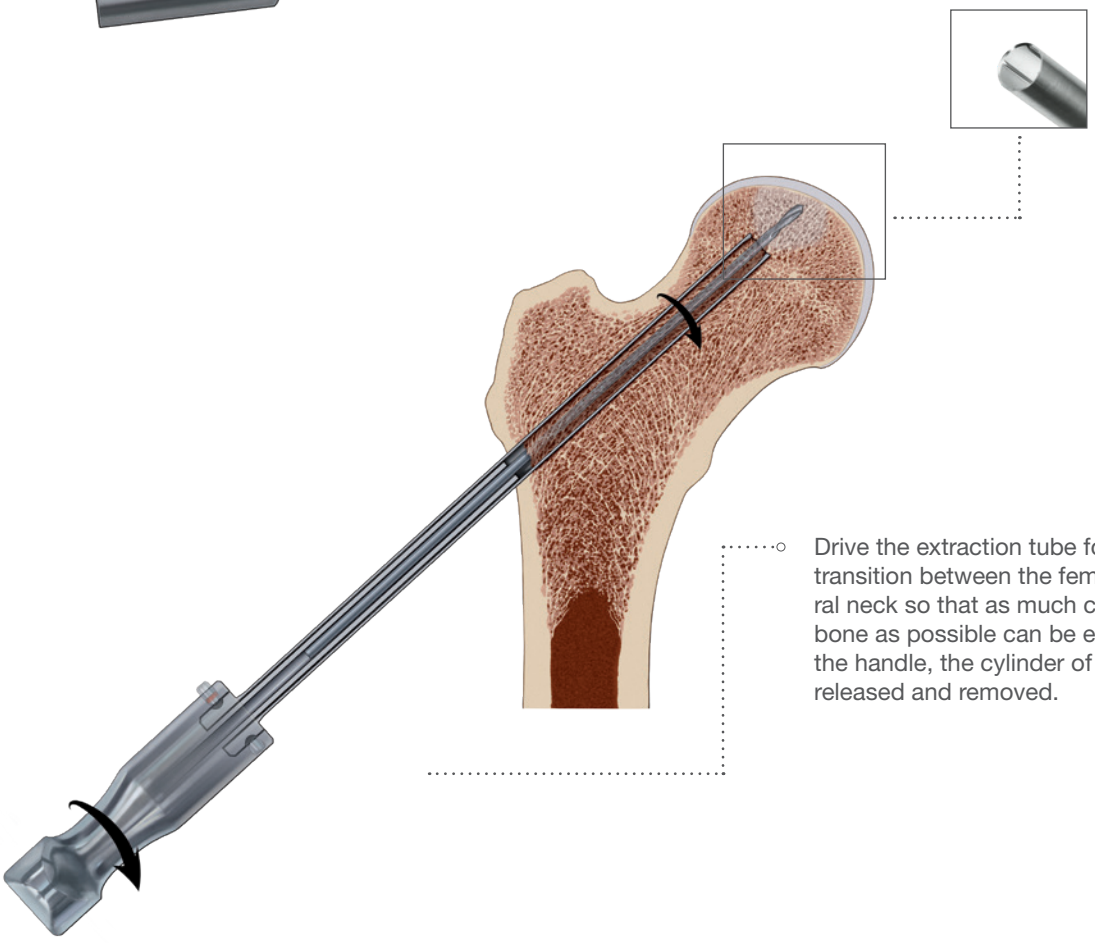


Introduce the insertion aid (introducer) into the extraction tube, then insert both into the bone via the guide wire. The extraction tube already reaches the cancellous bone at this point.



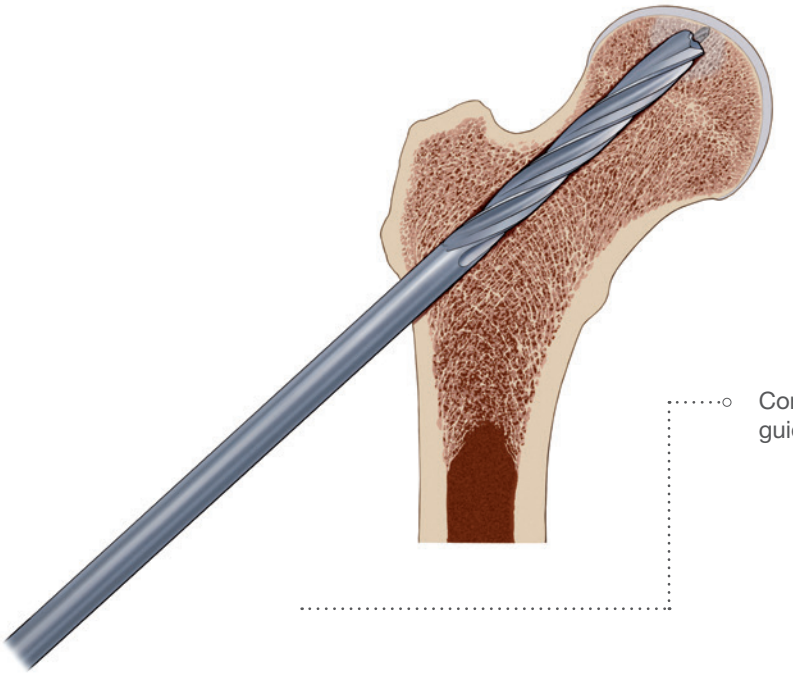
Replace the introducer with the handle and lock it in position.

Drive the extraction tube further into the bone with hammer blows to the head of the handle. The guide wire should be in the centre of the extraction tube here.



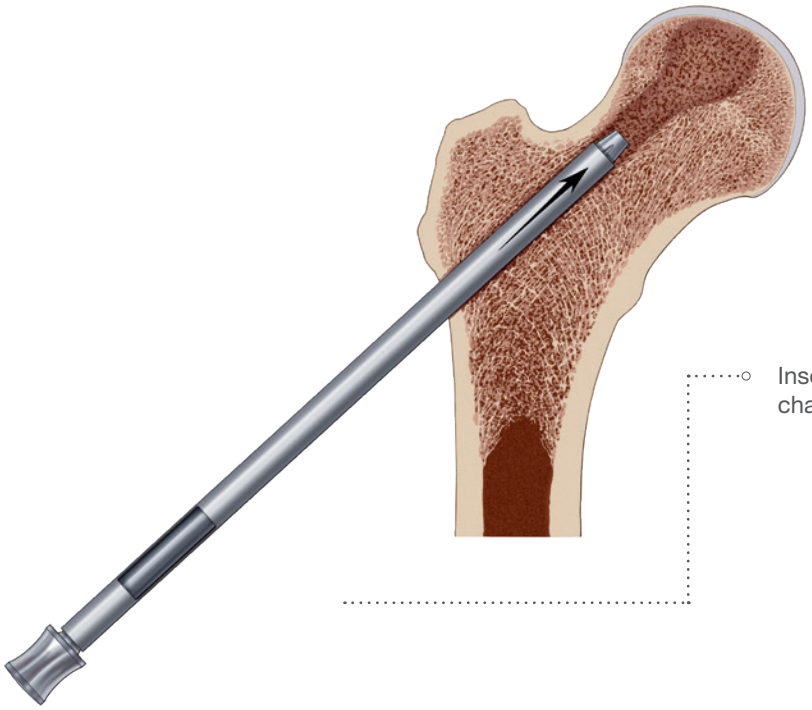
Drive the extraction tube forward as far as the transition between the femoral head and femoral neck so that as much cancellous bone as possible can be extracted. By turning the handle, the cylinder of cancellous bone is released and removed.

The cancellous bone tissue is ejected proximally from the extraction tube by means of the pusher.



Continue drilling with the 9 mm drill via the guide wire and then remove the necrotic bone.

The necrotic bone is removed using a curette.



Insert the filling tube into the drill channel by means of the introducer.

Insert the morcellised cancellous bone into the filling tube`s window which is outside the bone. Using the pusher, press the cancellous bone through the filling tube into the femoral head.

After impaction of the cancellous bone, the cavities left in the femoral head and by the drilling channel can be filled with bone substitute material if required.

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