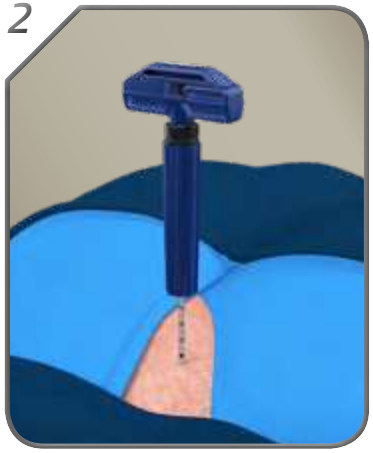
# Bone Marrow Aspiration
## Process Steps

# MARROW CELLUTION™
Autologous Bone Marrow Aspiration & Bone Graft Harvesting

1

Heparin Flush: rinse all kit components with heparin (2.000 Units/ml)

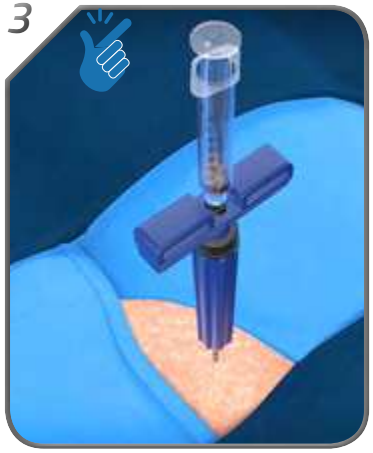
2



Insert Introducer Needle with Sharp Stylet just past cortex into medulary space

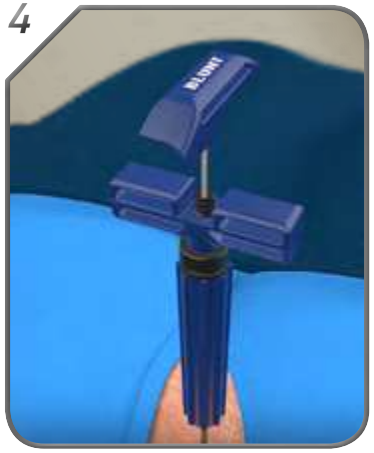
*Ensure longitudinal orientation*

3



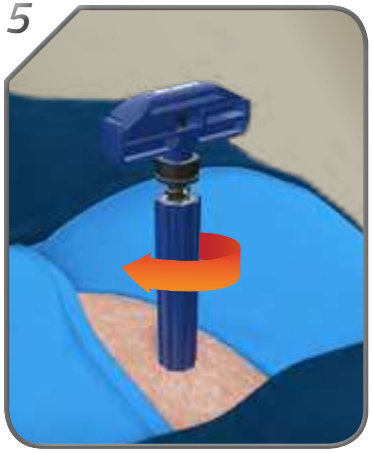
- Remove Sharp Stylet
- Attach Syringe
- Aspirate 1ml marrow to ensure proper positioning of needle tip

4



- Remove Syringe
- Insert & lock Blunt Stylet
- Continue to advance Introducer Needle to desired depth

5



Rotate Guide Grip to skin level

6

- Remove Blunt Stylet
- Insert and secure Aspiration Cannula

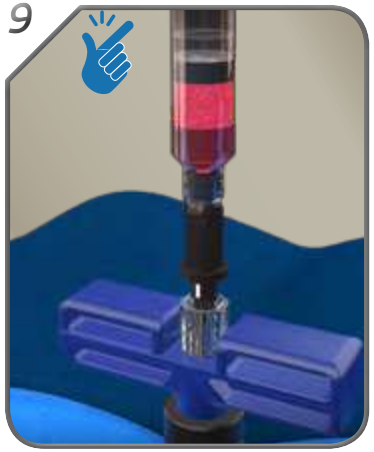
7

- Attach Syringe
- Aspirate 1ml marrow

8

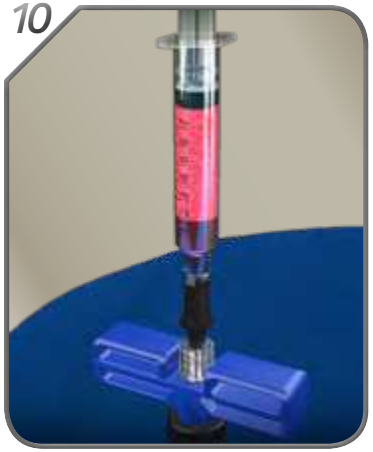
Hold Guide Grip and rotate Handle 360° counter-clockwise

9



Aspirate 1ml marrow

10



- Repeat steps 8 & 9 as needed
- Reassemble for additional punkture (if required)

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e-brochure:

Abbreviated instructions overview. Information for Healthcare Professionals only. Refer to package insert for complete instructions for use. For further product information please contact your local Marrow Cellution™ representative or visit www.aspire-medical.eu.

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# Bone Core Collection

## Process Steps (*MC-RAN-8C* and *MC-RAN-8CSTS* only)

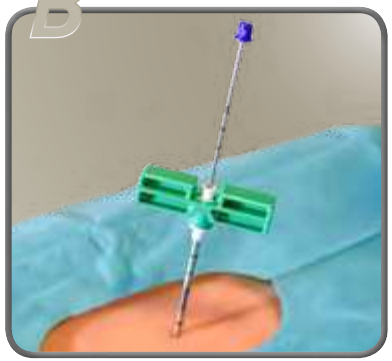
# MARROW CELLUTION™

Autologous Bone Marrow Aspiration & Bone Graft Harvesting

### A

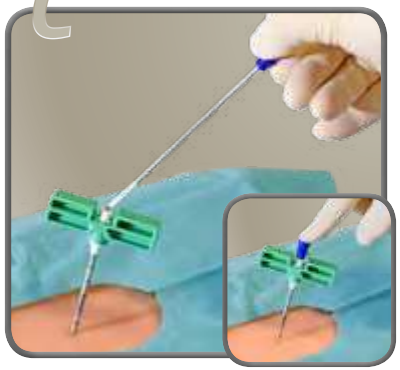
- Remove Sharp Stylet
- Use exising puncture site to insert and advance Trephine Needle (only) to desired depth (2-3cm)

### B



- Insert marked Measurement Probe to check sample length in the Trephine Needle lumen
- Remove Probe

### C



- Insert Extraction Tool into the Trephine Needle cannula
- Push Extraction Tool to luer connection of the handle

### D

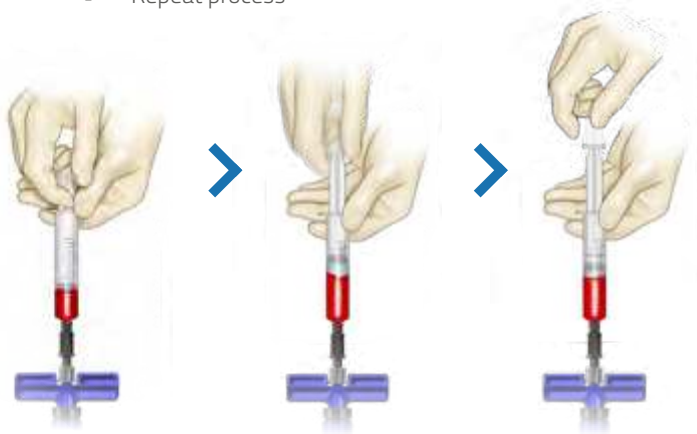
- Rotate Trephine Needle and Extraction Tool together to cut the bone core
- Remove both tools together

### E

- Remove Extraction Tool from Trephine Needle
- Use Measurement Probe to push out the bone core

## "Snap Back" Aspiration Technique

- Aspirate ~1ml from each aspiration level
- Retract plunger and immediately release it
- Reposition Marrow Cellution™ needle
- Repeat process



## Marrow Cellution™ System Components

Each Marrow Cellution™ System includes all components shown above and one 10ml Syringe

Additional components for bone core collection included in MC-RAN-8C and MC-RAN-8CSTS