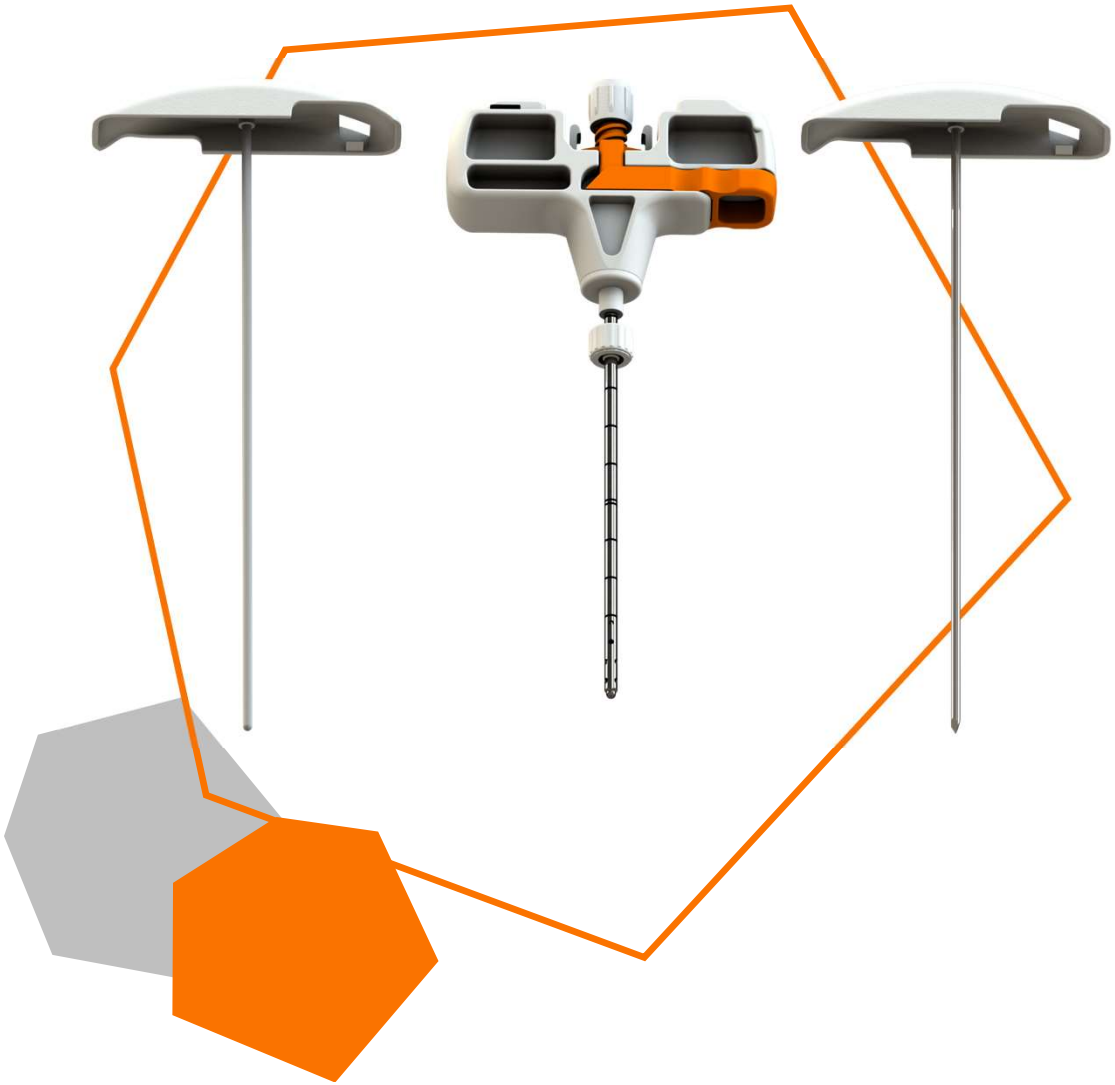
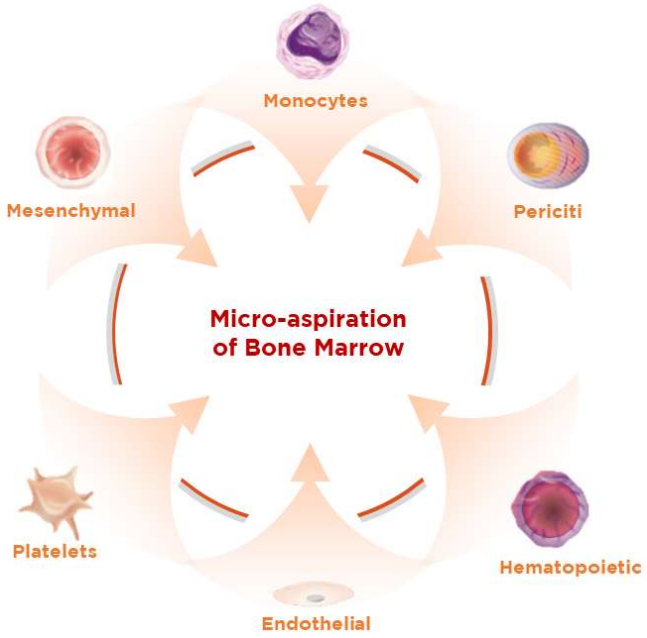


CellColt™

Bone Marrow Aspiration
& Bone Harvesting Systems
by

MDL

An Innovative Approach To Regenerative Medicine



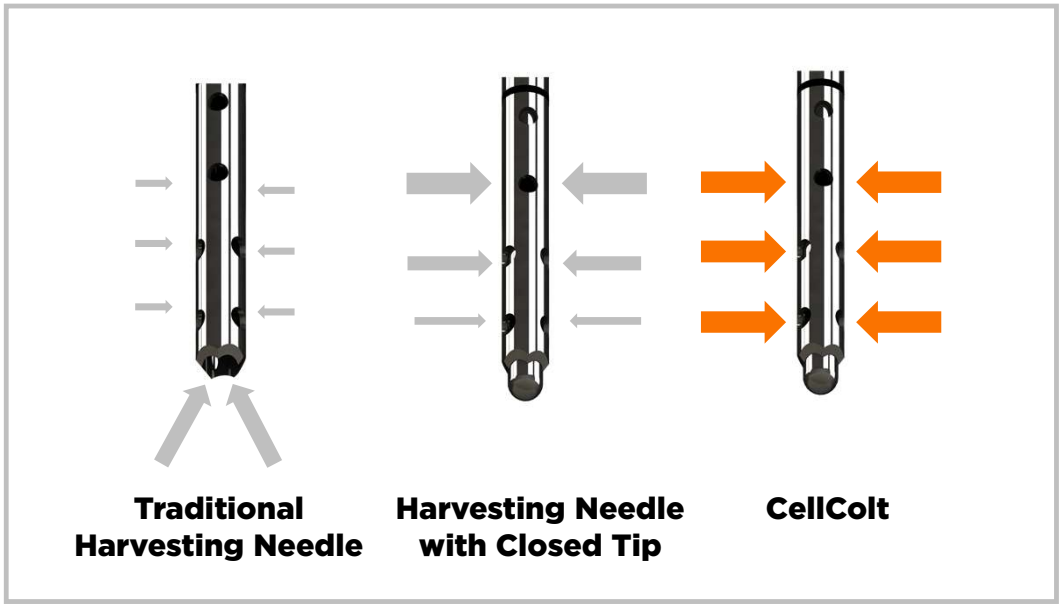
- A variety of cells are contained in the Bone Marrow. Of all these cells **only 0,001-0,0001% are Mesenchymal Stem Cells**
- Mesenchymal stem cells are multipotent cells that can be used to repair damaged tissues
- Bone Marrow aspirate: the gold standard in regenerative medicine

Low concentration and **difficulty to detach** mesenchymal cells have **complicated** the procedures and required **complex** regulatory oversight

CellColt™

The CellColt™ System allow to achieve a **selective aspiration** of the bone marrow **maximizing** the **stem cells** and **progenitor cell** recovery and minimizing peripheral blood contamination.

How does it work?



CellColt is provided with a **unique**, **patented lateral holes system** studied to provide a **homogeneus aspiration**.

This is accomplished by varying the diameter of the side holes to maximize the ratio of stem cell aspirated over the periphal blood.

What are the benefits?

Innovative

- Closed tip aspiration design
- M-BMA Procedure (Multiradial Bone Marrow Aspiration)
- Lateral vs. Distal Collection

What are the benefits?

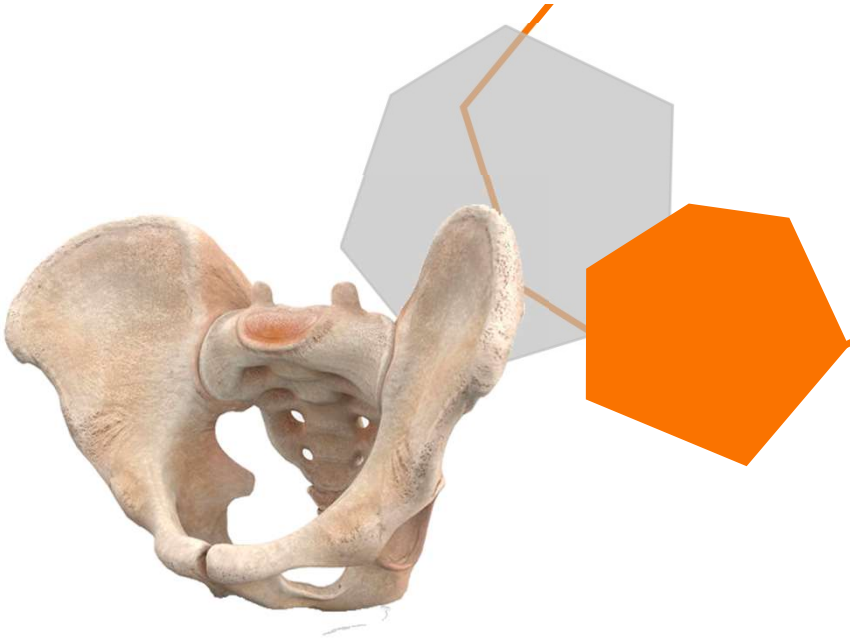
Efficient

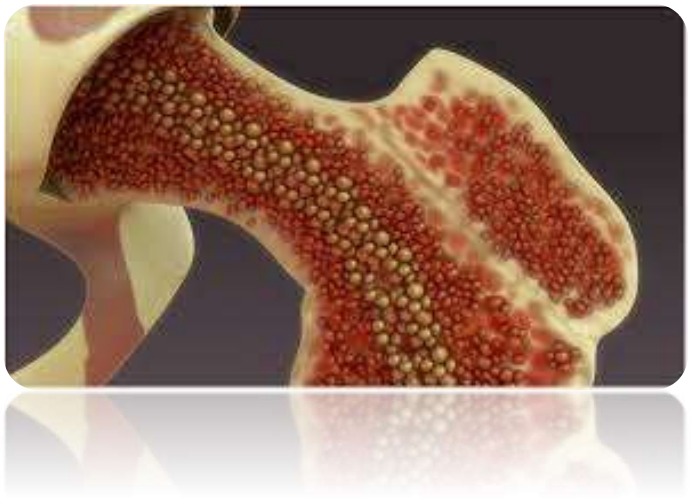
- The aspiration never leave the sterile field
- Higher CFU-f Count per volume
- Autologous Bone Graft Collection
- No additional actions required to extract stem cells
- One-click mechanism to select different areas of tissue

What are the benefits?

Specific

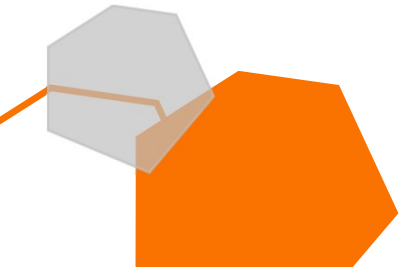
- Reduce Peripheral Blood Contamination
- Closed tip aspiration design
- Lateral vs. Distal Collection

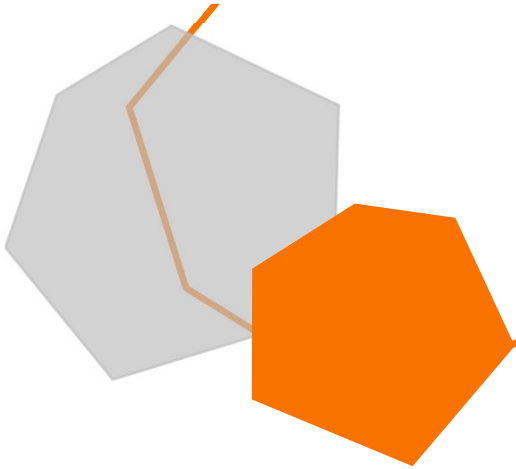




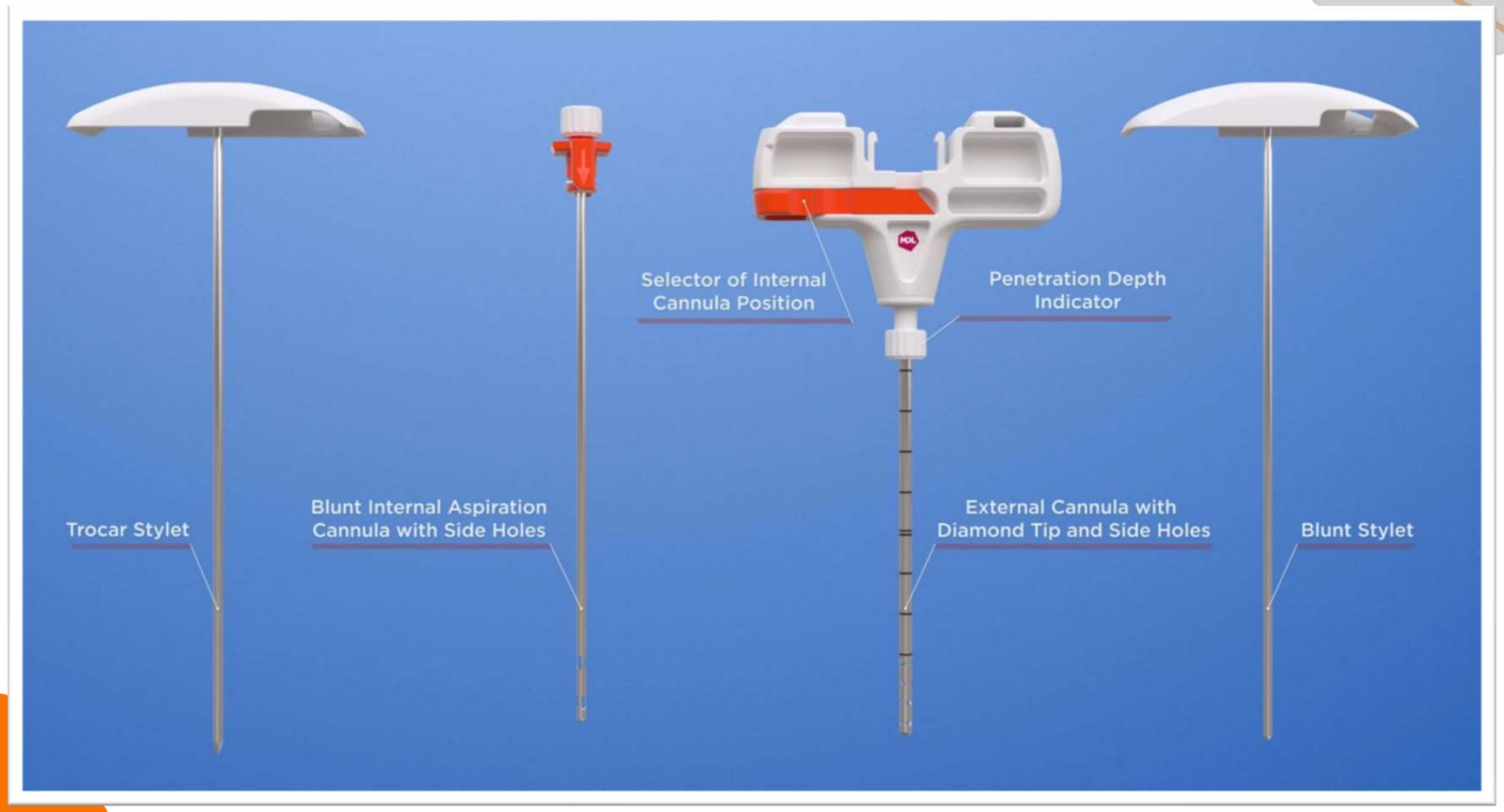
CellColt provides substantial **savings in time**, **effort** and **expense**.

It reduces patient trauma, morbidity and risk of infection.



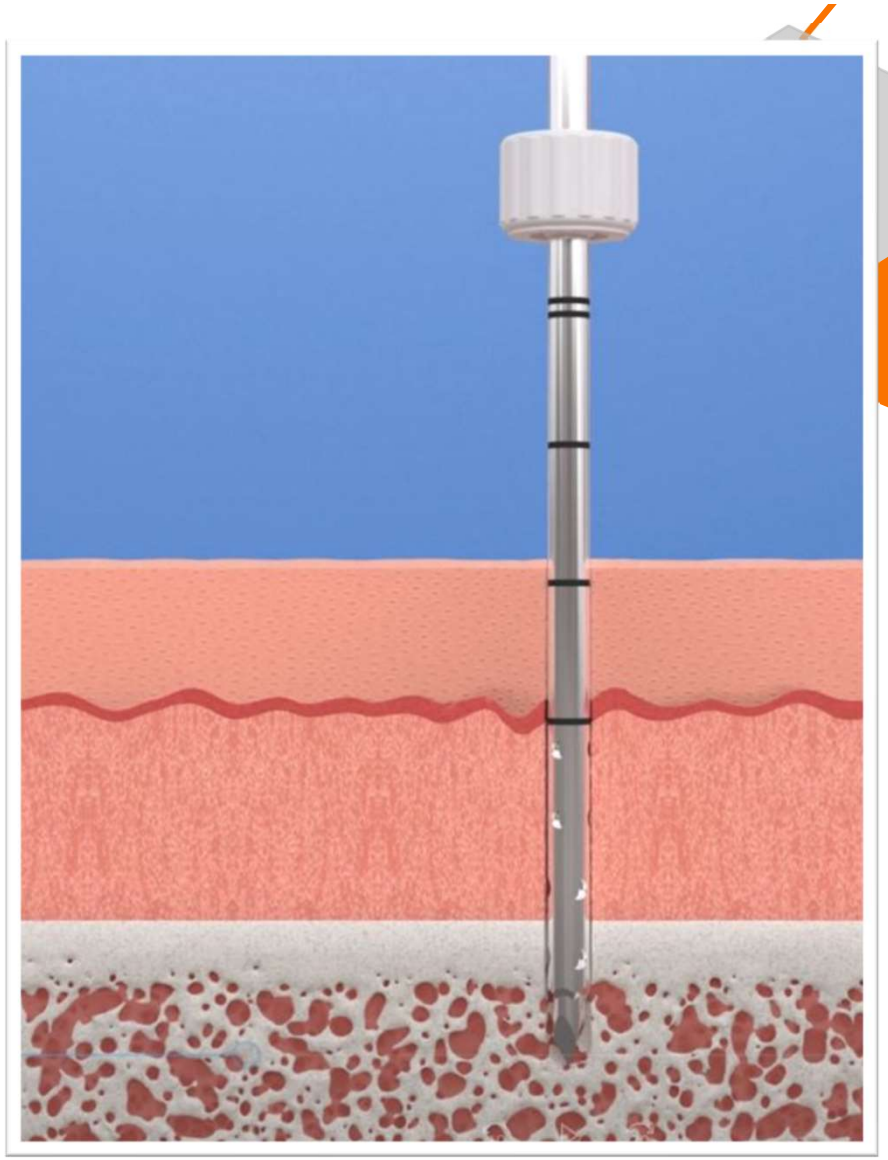


HOW TO USE IT


Trocar Stylet
Blunt Internal Aspiration Cannula with Side Holes
Selector of Internal Cannula Position
Penetration Depth Indicator
External Cannula with Diamond Tip and Side Holes
Blunt Stylet

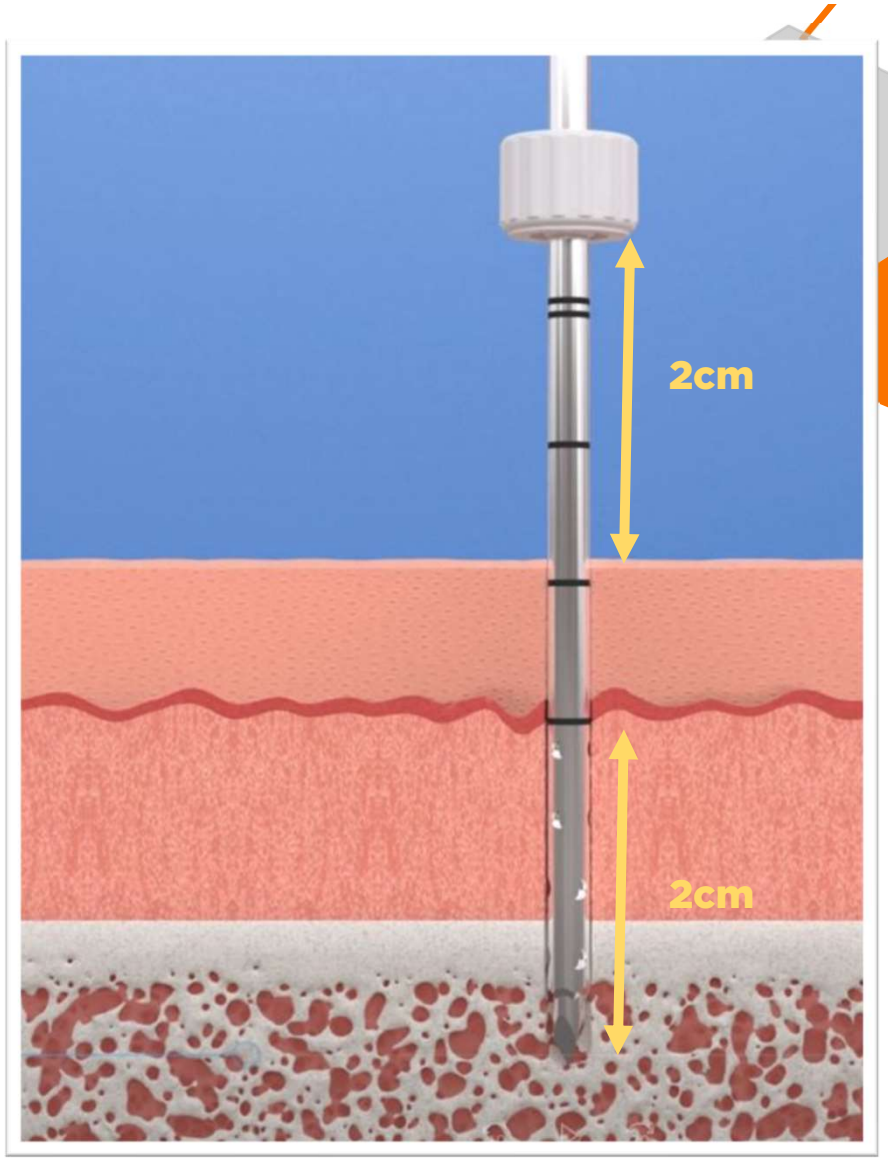
1. Insertion

- Insert CellColt
- Reach the cortical of the bone
- Penetrate the cortical using clockwise and counter-clockwise movements
- Once reached the internal cavity, stop advancing and place the stopper



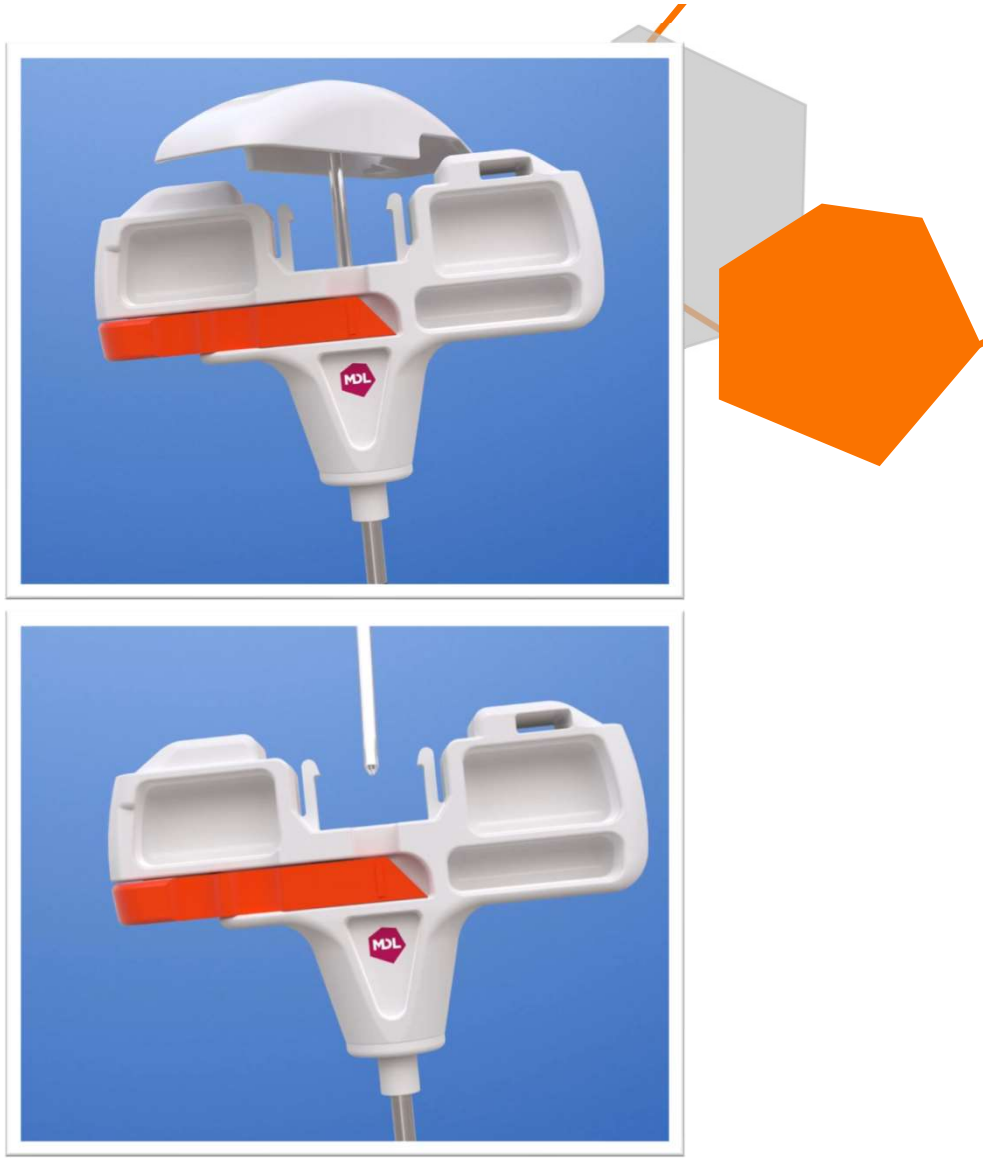
2. Safety Stopper

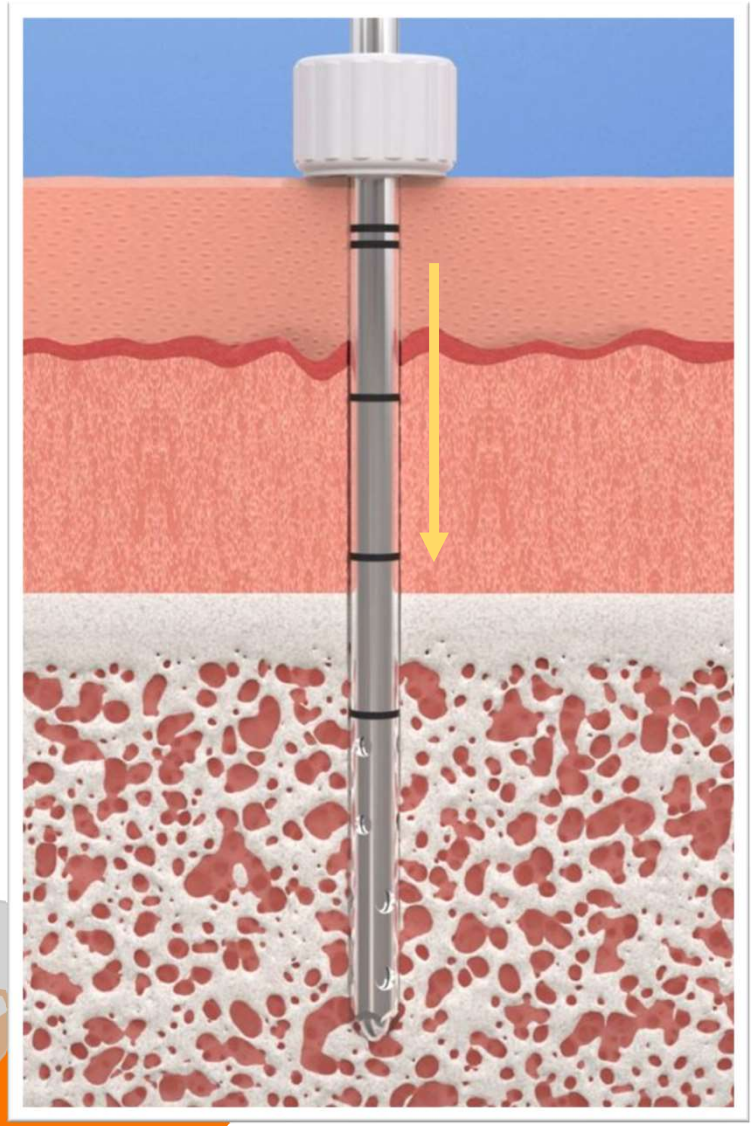
- Place the safety stopper 2cm away from the skin



3. Insert Blunt Stylet

- Rotate the upper lid of the device counter-clockwise and pull the trocar out
- Insert the blunt stylet and rotate it clockwise to secure it on the handle





4. Enter the marrow

- Push CellColt into the marrow cavity in complete safety using the blunt stylet

5. Insert the cannula

- Rotate the upper lid of the device counter-clockwise and pull the blunt stylet
- Insert the Blunt Internal Aspiration Cannula into CellColt

6. Internal Blunt Aspiration Cannula (IBAC)

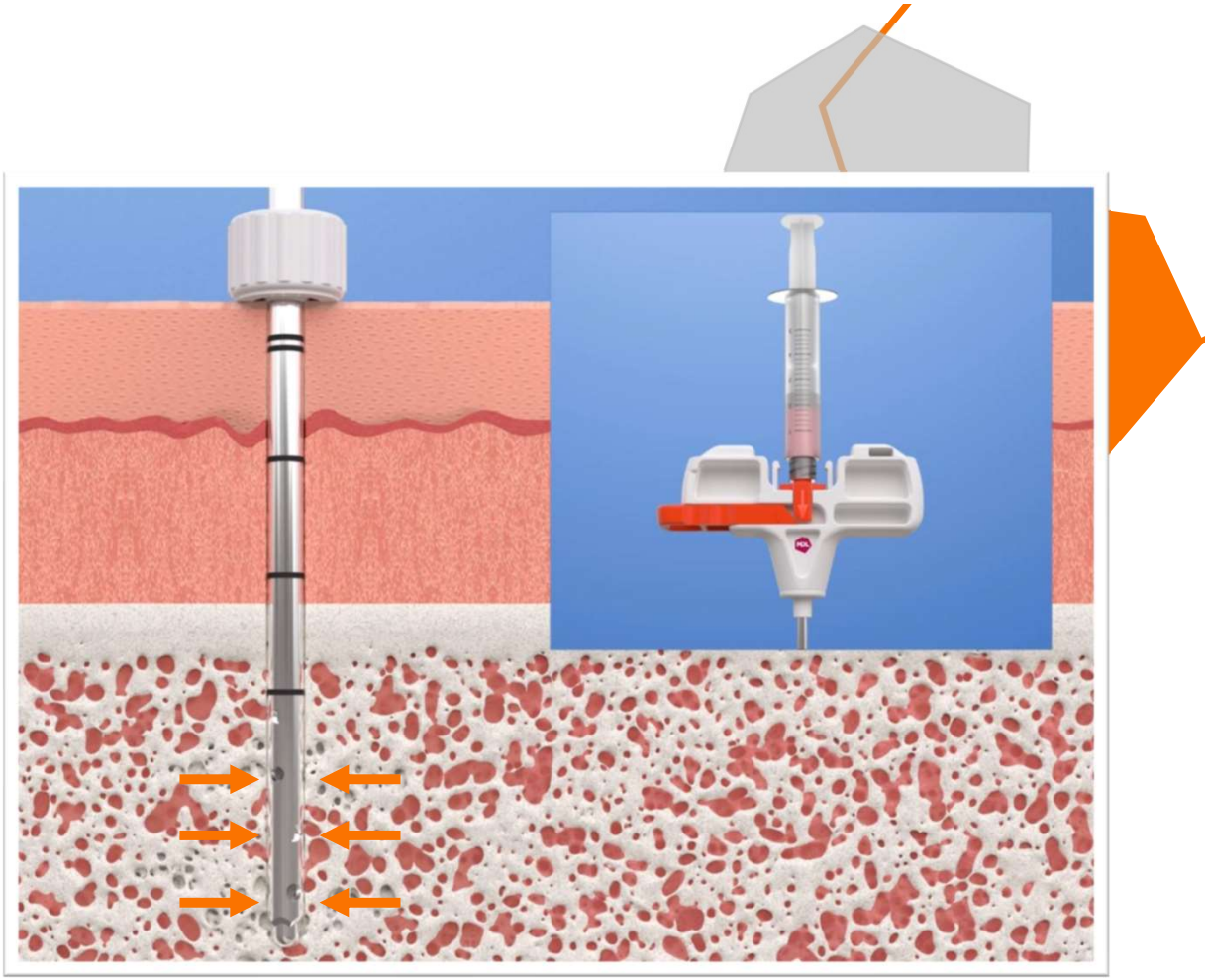
- Position the IBAC making sure that the arrow points toward MDL logo
- Make sure that the IBAC is inserted completely into CellColt

7. Syringe Attachment

- Attach a 10ml syringe to the luer lock connection place on top of the IBAC

8. First Aspiration

- Pull the plunger to perform the first micro-aspiration (5ml)
- All the open holes absorb with the same pressure

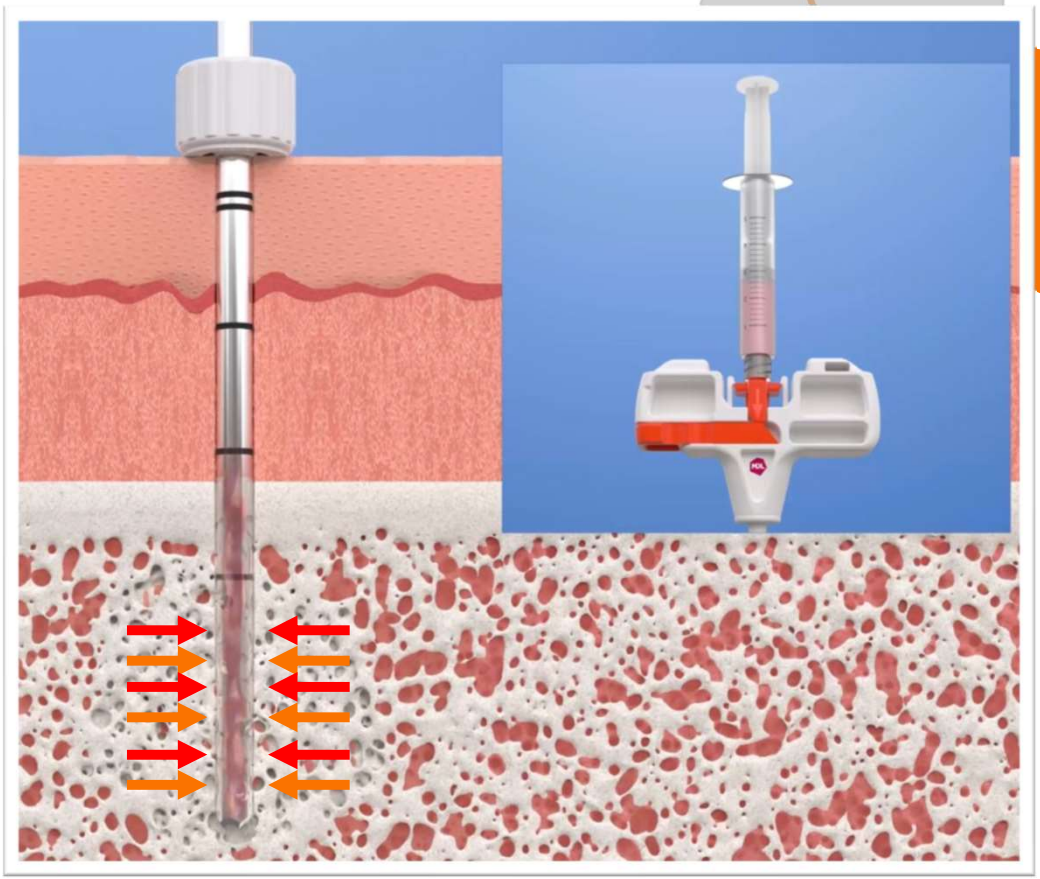


9. One-Click

- Click the sliding block, closing the 6 holes, and opening 6 new holes on the cannula tip

10. Second Aspiration

- Pull the plunger to perform the second micro-aspiration (5ml)
- All the open holes absorb with the same pressure



10. Final Removal

- Detach the syringe and screw the cap back on the device
- Pull the device out of the patient. Facilitate the extraction of the device by doing clockwise and counter-clockwise motions