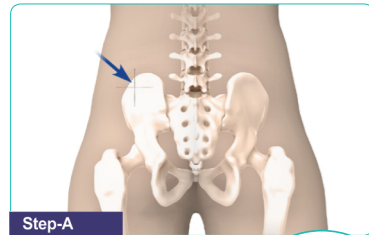
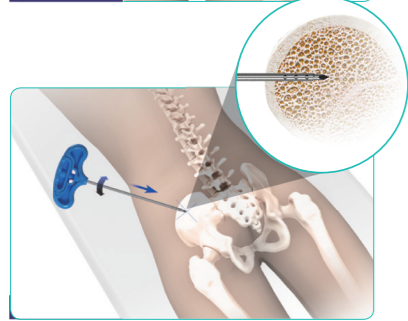


## 1-1. Aspiration Procedure



Step-A



Step-I

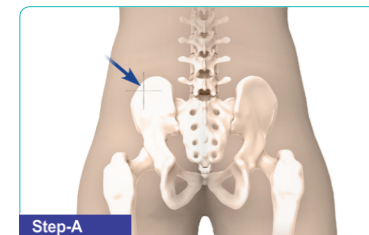


Step-J



- A** Place the patient in either Prone or Decubitus position.
- B** Posterior iliac crest is the most common side to obtain bone marrow.
- C** Clean the skin with an antiseptic solution
- D** Inject the marked area with local anesthetic to the periosteum.
- E** Make a skin incision with a scalpel blade over the marked area.
- F** Insert the needle (combining Cannula with Sharp stylet) through the incision.
- G** By rotating the needle, put the needle gently through the periosteum into the cortex.
- H** Remove Sharp stylet by rotating upper section of handle and pulling straight out.
- I** By rotating the Cannula needle, continue putting the Cannula needle forward into the bone marrow cavity. The marrow cavity is generally detected by decreased resistance.
- J** Connect the syringe to Cannula hub.
- K** Apply suction by withdrawing syringe plunger. Remove the syringe collecting the aspirated specimen.
- L** Remove the Cannula from body slowly.

## 1-2. Biopsy Procedure



Step-A

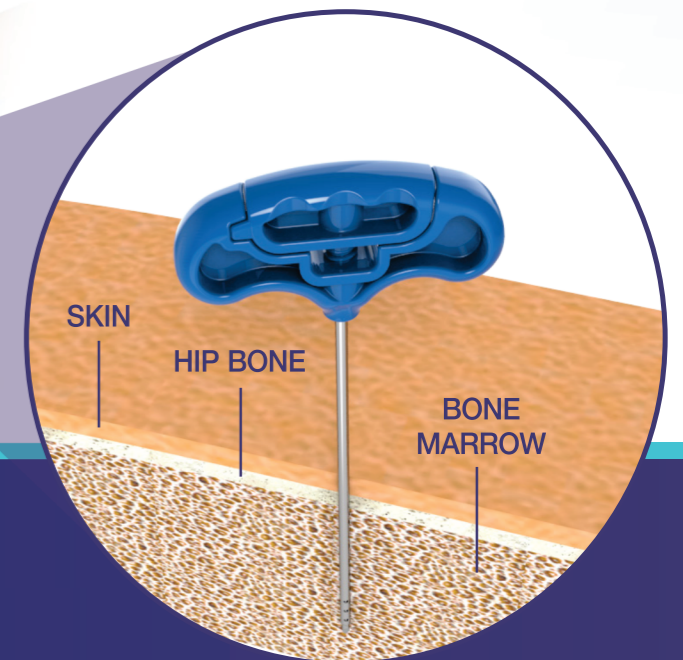
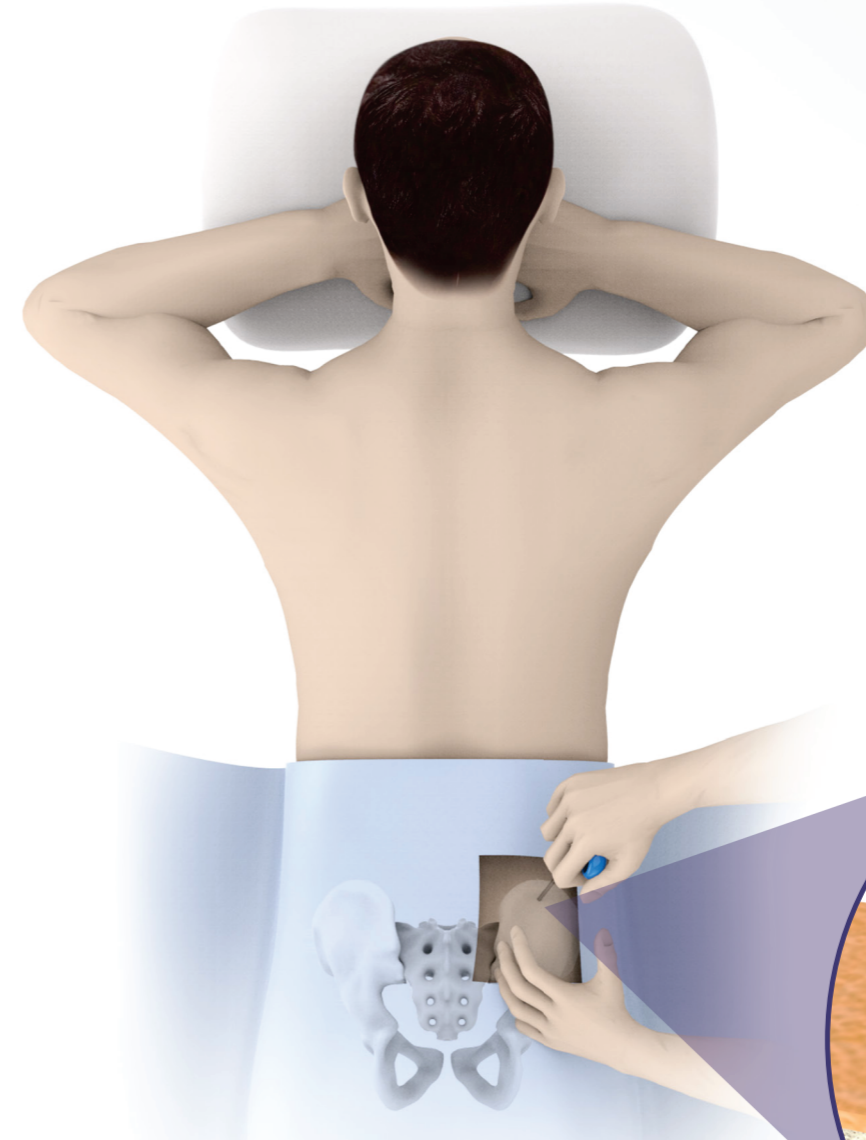


Step-K

Take the biopsy after the aspiration using the same skin incision, but choosing a different location to obtain the biopsy sample.

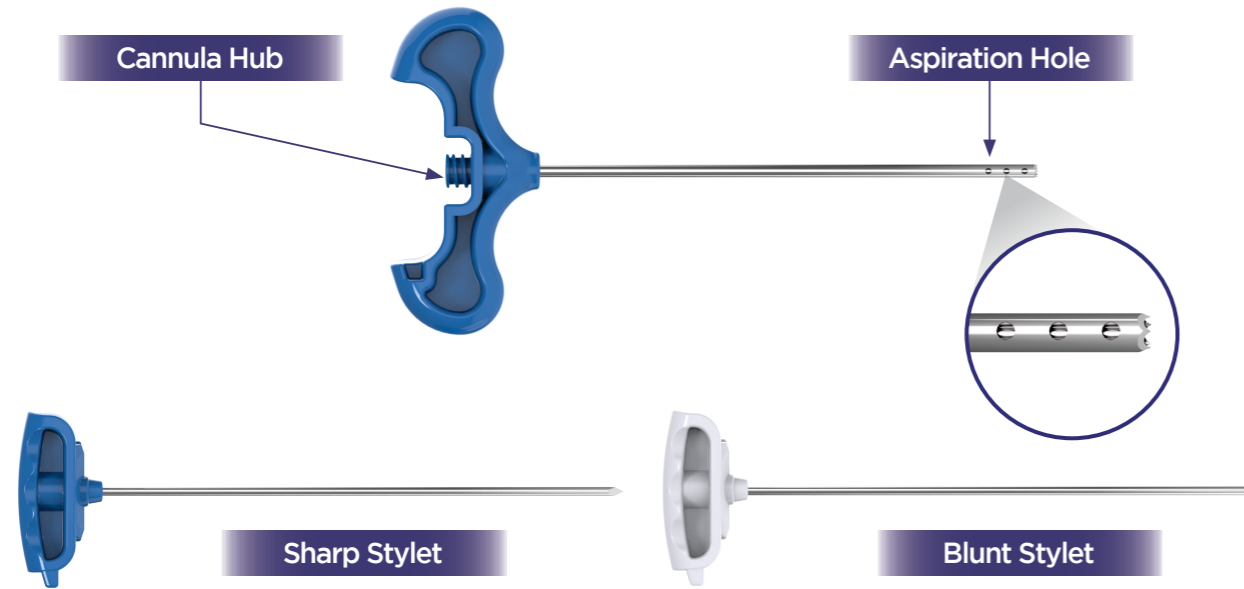
**Repeat Steps A through I of the procedure and continue as follows:**

- J** By rotating the Cannula needle (for better cutting), slowly and gently putting the needle until adequate marrow is obtained.
- K** Insert the Blunt stylet into the Cannula to check the sample length in the Cannula.
- L** Remove the Blunt stylet.
- M** Remove the Cannula from body slowly, and push the specimen out with the Blunt stylet.



**COLEX**  
Bone Marrow Biopsy Needle





- 1 **Cannula:** It drills holes with Sharp stylet and collects the bone marrow specimens.
- 2 **Cannula hub:** It connects the syringe to aspirate the bone marrow specimens.
- 3 **Aspiration hole:** It uses for aspirating the bone marrow.
- 4 **Sharp stylet:** It drills holes at external part of bone.
- 5 **Blunt stylet:** It pushes the specimens out of Cannula and calculates amount of the collected specimens.

> **Model Information & Spec**

No.	Model Name	Cannula		Sharp stylet		Blunt stylet	
		Length (mm)	Out diameter (Ø)	Length (mm)	Out diameter (Ø)	Length (mm)	Out diameter (Ø)
1	SWBMN11H11	110	3.0	130	2.3	127	2.3
2	SWBMN13H11	110	2.3	130	1.7	127	1.7
3	SWBMN08H15	150	4.3	170	3.7	167	3.7
4	SWBMN11H15	150	3.0	170	2.3	167	2.3

> **What is bone marrow?**

Bone marrow produces red blood cells, white blood cells, and platelets. Bone marrow is the soft tissue that is inside most large bones. Bone marrow makes a lot of the body's blood cells, including red blood cells, white blood cells, and platelets.

> **Why do a bone marrow biopsy?**

Health providers order bone marrow biopsies when there are signs or symptoms that something is wrong with blood cell production. Bone marrow biopsies are also used for patients with blood-related cancers to see how their treatment is working. They can be used to check the progress of chemotherapy.

> **Advantages**

- Minimally invasive
- Low risk therapy
- No open surgery
- Quick recovery

> **Features**

- It is easy to collect bone marrow because there is a aspiration hole.
- All-In-One Kit & Disposable Products

> **Indication for use**

Bone Marrow Biopsy Needle (Colest<sup>TM</sup>) intended for the purpose of harvesting bone and/or bone marrow specimens