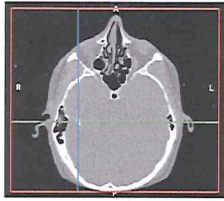
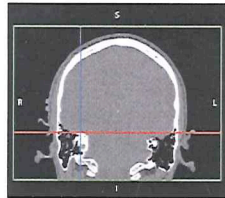


# Superior Canal Dehiscence Repair

1

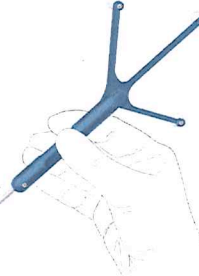


Axial

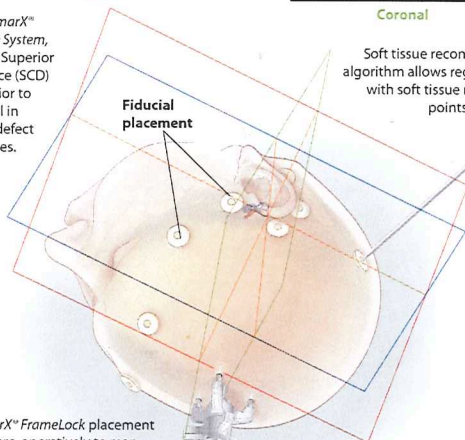


Coronal

After CT, but before incision, reference coordinates are transferred to reference arc and FrameLock device fixed to the skull.



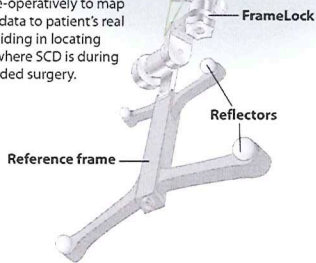
Using the LandmarX® Image Guidance System, CT scanning for Superior Canal Dehiscence (SCD) is performed prior to surgery as a tool in visualizing the defect in multiple planes.



Fiducial placement

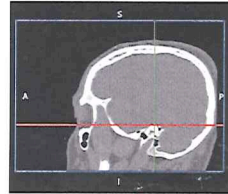
Soft tissue reconstruction algorithm allows registration with soft tissue reference points on head.

LandmarX® FrameLock placement is used pre-operatively to map virtual CT data to patient's real anatomy aiding in locating precisely where SCD is during image-guided surgery.



Reflectors

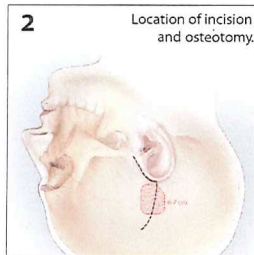
Reference frame



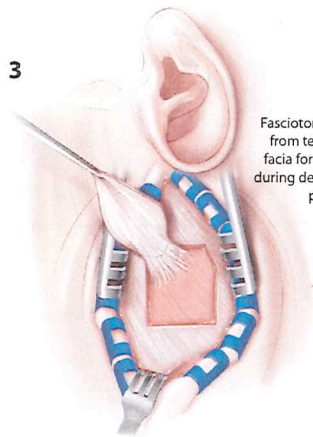
Sagittal

2

Location of incision and osteotomy.

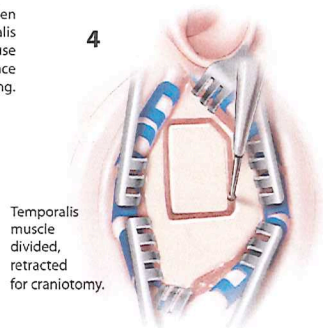


3



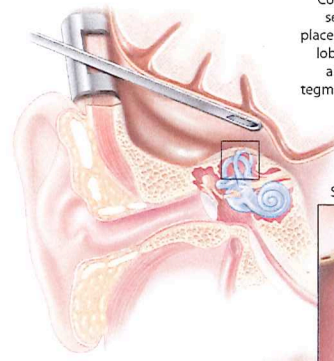
Fasciotomy taken from temporalis fascia for later use during dehiscence plugging.

4



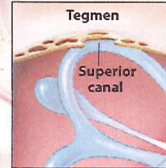
Temporalis muscle divided, retracted for craniotomy.

5 Dehiscence visualized.

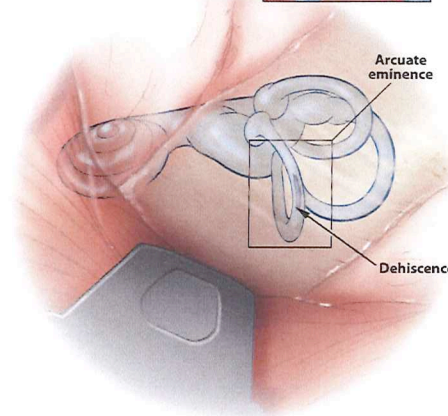


Coronal view depicting: self-retaining retractor placed, dura and temporal lobe elevated, revealing arcuate eminence and tegmen of temporal bone.

Schematic view of SCD

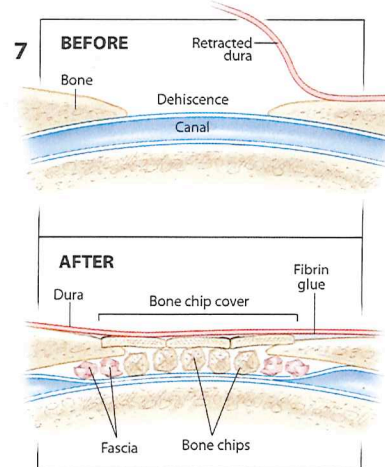


Arcuate eminence



Dehiscence

7



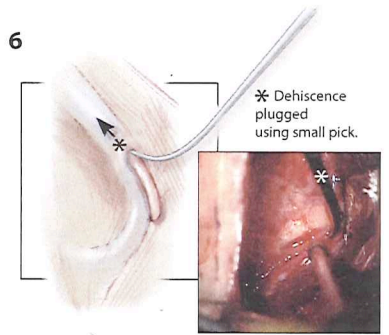
BEFORE

Retracted dura  
Bone  
Dehiscence  
Canal

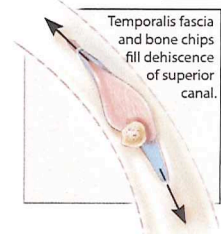
AFTER

Dura  
Bone chip cover  
Fibrin glue  
Fascia  
Bone chips

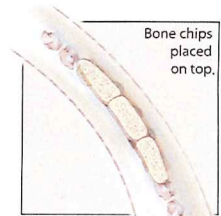
6



Dehiscence plugged using small pick.



Temporalis fascia and bone chips fill dehiscence of superior canal.



Bone chips placed on top.

8 Craniotomy closed

