

iFuse Implant System®

Imaging Guide



Radiolucent | Efficient | Simple

IMPORTANT INFORMATION: This Imaging Guide is meant to be used in conjunction with the Surgical Technique Manual and intended for trained surgeons of the iFuse procedure. This guide is not meant to be a substitute of the Surgical Technique Manual. Please refer to the Surgical Technique Manual for details on the technique.

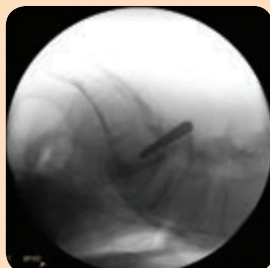
SI-BONE®

iFuse Implant System®
Minimally Invasive Sacroiliac Joint Surgery

SI-BONE iFuse Implant System Imaging Guide

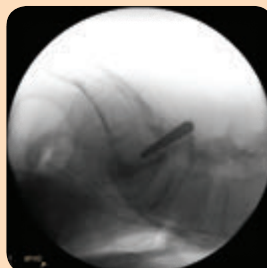
Fluoroscopic Guidance and Images

Lateral View



Align the disc space and end plates of L5-S1 to a true lateral view. The sciatic notches should overlap in the correct alignment. Finalize the alignment by superimposing the left and right iliac cortical densities (alar lines). This adjustment is made by making small adjustments in patient position by airplaning the table left or right or slightly rotating, up or down, the patient's pelvis.

1st Pin Initial Placement



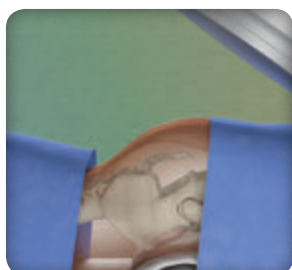
Initial Pin position is always started distal to the alar line. The middle 1/3 of the first sacral body is the typical starting point, though not universal.

1st Pin Final Placement

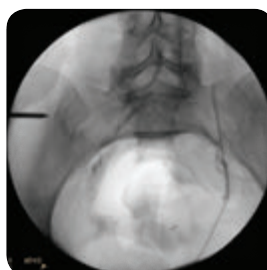


The Initial Pin is docked into the lateral cortex of the ilium.

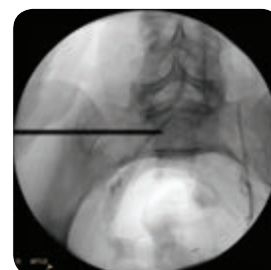
Inlet View



Tilt the fluoroscope toward the feet until the dense cortical line of the S1-S2 vestigial disc directly overlies the dense cortical line of the sacral promontory. In the images on the right, an oblique inlet view was used to better visualize the anterior sacral ala.*

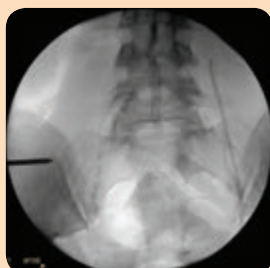


The trajectory of the Pin is adjusted so that the Pin is aiming towards the middle to anterior third of the sacral body.

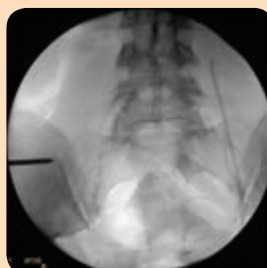


The Pin starting position is adjusted if the Pin is in an unfavorable position and cannot be advanced safely.

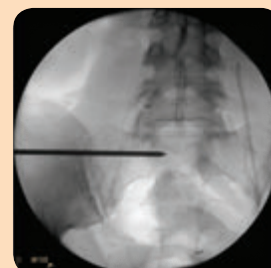
Outlet View



Tilt the fluoroscope toward the head until the sacral neuro foramina is optimally visualized. In the images on the right, an oblique outlet view was used to better visualize the lateral cortex of the S1 and S2 neuroforamina.*

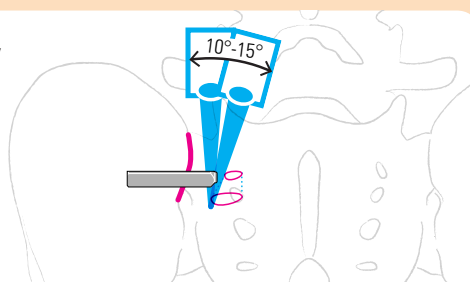


The trajectory of the Pin is adjusted on the outlet view so that the Pin is parallel to the S1 endplate.

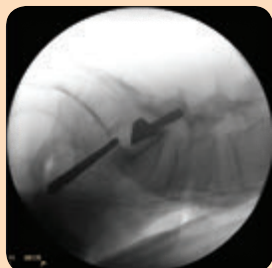


The Pin is advanced under the outlet view and may be advanced to mid-line with favorable trajectory. Re-check position on inlet view (above).

*** Oblique Inlet and Outlet images.** The iFuse procedure may be performed using the standard inlet, outlet and lateral views. However, oblique inlet and oblique outlet views are recommended for better visualization of implant and instrument position and trajectory. Oblique images are obtained by tilting the fluoroscope 10 to 15 degrees away from the surgeon while in the standard inlet or outlet view. In the inlet oblique view the slightly oblique position allows better visualization of the ventral cortex of the ipsilateral sacral alar area. In the outlet oblique view, this slightly oblique position aligns the beam of the C-arm to be in alignment with the SI joint and to be in alignment with the lateral border of the S1 neuroforamen. This imaging view allows better visualization of the implant with respect to the SI joint and better visualization of the implant with respect to the neuroforamen.

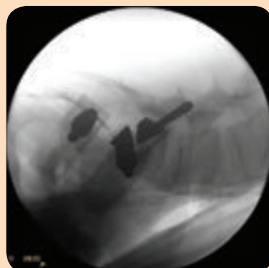


2nd Pin Placement



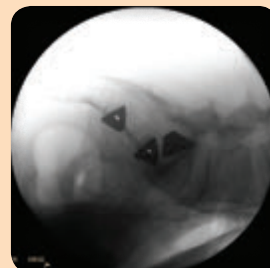
Depending on the patient's anatomy, the placement of the 2nd Pin may vary. In this specimen, the 2nd Pin's starting position is more ventral. The trajectory of the pin is somewhat ventral to dorsal so that the implant is placed across the cartilaginous portion of the SI joint.

3rd Pin Placement

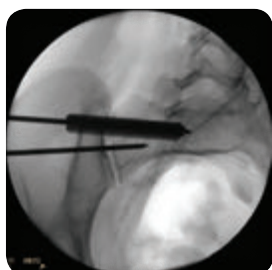


Depending on the patient's anatomy, the placement of the 3rd Pin may vary. Here, it was acceptable to start the 3rd pin at a point ventral to the anterior sacral wall as visualized on the lateral image.

Final Placement



In this particular specimen's anatomy, placing the 3rd implant ventral to the anterior sacral wall maximized the implant's interface with the SIJ's hyaline cartilage without breaching the cortical walls or foramen.



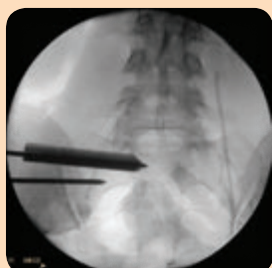
Adjusting the pin to a slightly dorsal trajectory will avoid breach of the ventral sacral cortex. Care must be taken to avoid the sacral canal dorsally near the midline.



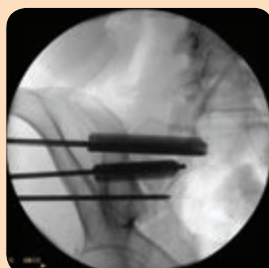
Always check the inlet view to assess Pin/Implant trajectory and position. Although the 3rd Pin is ventral to the anterior sacral wall, in the laterl view, it is placed well within the sacral cortical walls.



The 2nd and 3rd implants are superimposed on this view. Both demonstrate a somewhat ventral starting position with a slightly ventral to dorsal trajectory on this inlet view.



Always check the outlet view to assess Pin/Implant trajectory and position to avoid breaching of the neural foramen.



Always check the outlet view to confirm the Pin/Implant trajectory and position.



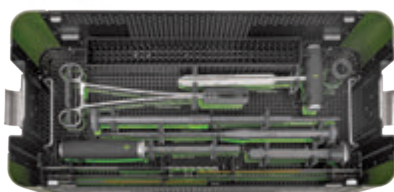
The 1st implant was purposefully chosen to be as long as possible. This will allow the leading tip of the implant to engage the areas of denser bone under the facet/pedicle and in the sacral body.

When placing subsequent implants, **avoid orienting implants point to point**. Implant to implant contact may occur in any orientation. If there is implant to implant contact, the existing implant may be inadvertently advanced during insertion of the current implant.

The minimum distances, measured center to center, in the various orientations are:



Ordering Information



To order your iFuse Implant System, please contact your local SI-BONE sales representative or call SI-BONE at **408-207-0700**.

iFuse Implant part numbers

		Diameter (mm)	
		4.0	7.0
Length (mm)	30	4030-90	7030-90
	35	4035-90	7035-90
	40	4040-90	7040-90
	45	4045-90	7045-90
	50	4050-90	7050-90
	55	4055-90	7055-90
	60	4060-90	7060-90
	65	4065-90	7065-90
	70	4070-90	7070-90

Disposables

Description	Part Number
Cannulated Drill Bit - 4.0 mm	400074
Cannulated Drill Bit - 7.0 mm	400075
Guide Pin- 3.2 mm	500373
Blunt Pin- 3.2 mm	500374
Exchange Pin- 3.2 mm	500375
Guide Pin- 2.0 mm	500376
Blunt Pin- 2.0 mm	500377
Exchange Pin- 2.0 mm	500378

Important Information

The iFuse Implant System is intended for sacroiliac joint fusion for conditions including sacroiliac joint disruptions and degenerative sacroiliitis. As with all surgical procedures and permanent implants, there are risks and considerations associated with surgery and use of the iFuse Implant. Please review the iFuse Instructions For Use for a complete discussion of contraindications, warnings, precautions, and risks.

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SI-BONE Inc.
3055 Olin Avenue, Suite 2200
San Jose, CA 95128
t 408.207.0700 f 408.557.8312
info@SI-BONE.com
www.SI-BONE.com