

Iliac oblique view

Visualization

- Posterior column and anterior wall.
- Entire contour of greater sciatic notch (GSN), ischial spine, lesser sciatic notch and ischial tuberosity.
- Crescent fracture (LC2 type) or iliac wing extension of an associated both column (ABC) acetabular fracture.

Used for

- LC2 screw, supra-acetabular (SA) pin, reverse LC2 screw or an iliac bolt
- These screws all use the same bony corridor.
- Entry point is the AIIS for LC2 and SA pin
- Avoid the GSN.

Tips & tricks

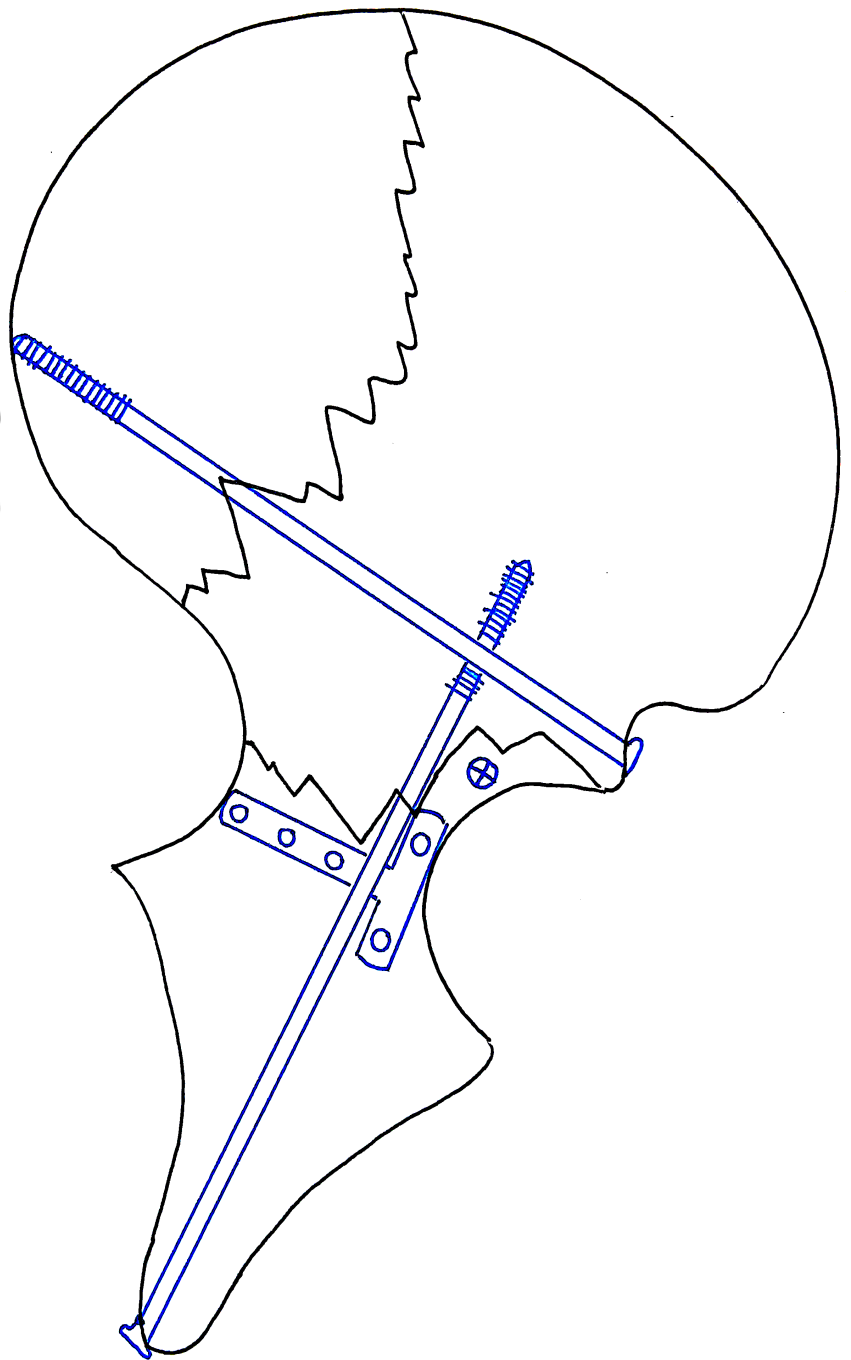
- Aim close to the notch and not too cephalad (bone becomes very thin)
- Assess the length of LC2 screw

Used for

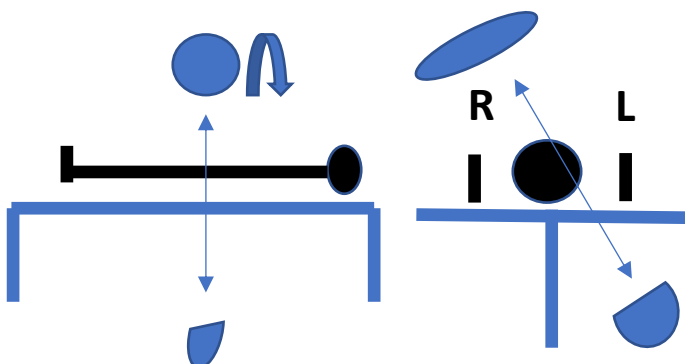
- Confirmation that lag posterior wall screw is extra articular
- Spring plate is not protruding posteriorly in the GSN
- Provides a visual of posterior column screw (antegrade or retrograde).

Tips & tricks

- Starting point for retrograde PC screw slightly more posterior (towards the GSN) than tip of the ischial tuberosity



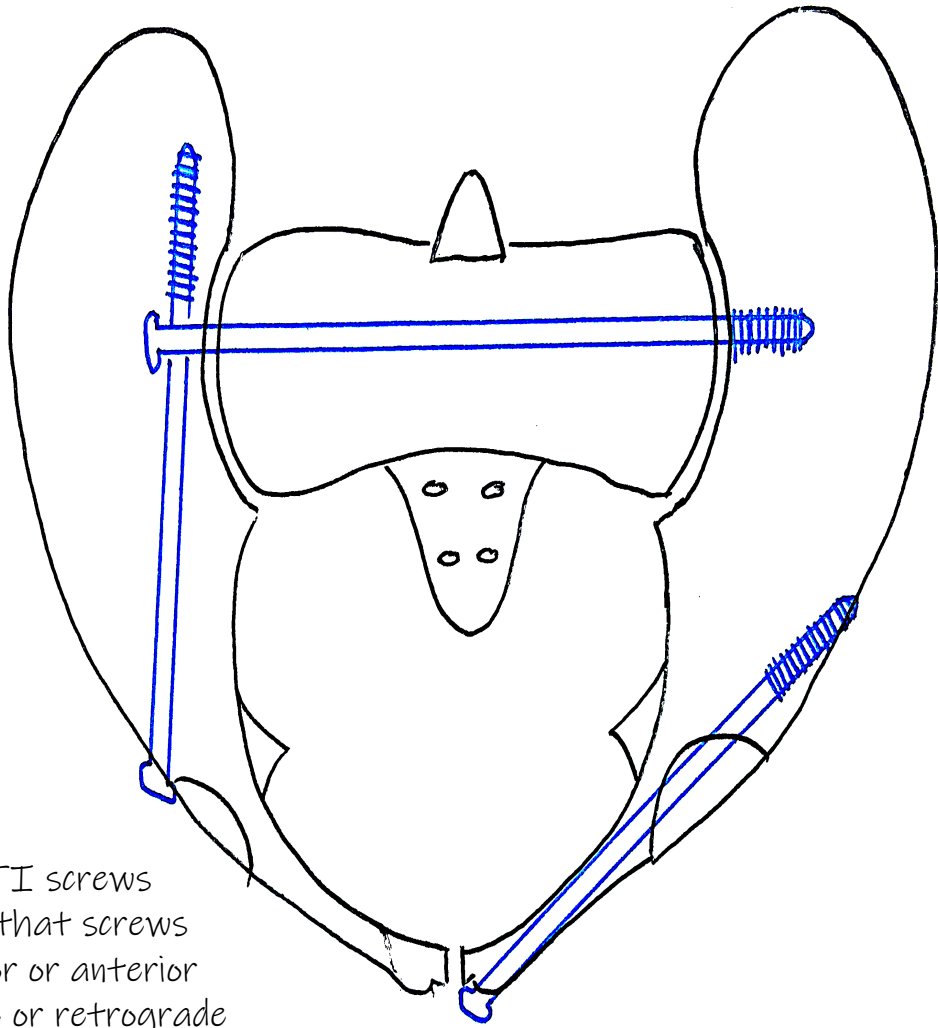
For left side iliac view, roll C-arm away from the left



Inlet view

Visualization

- Overall morphology of the pelvis inlet and its symmetry
- Antero-posterior displacement of the hemipelvis
- Pelvic brim line
- Entire sacrum seen from the top
- Ischial spines
- Anterior column overlaying the hip joint



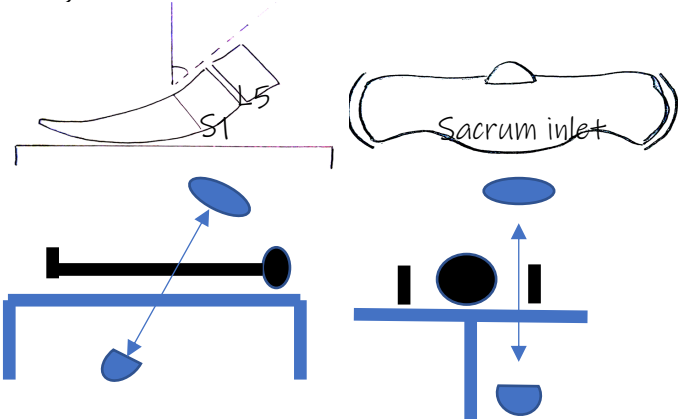
Used for

- Placement of SI or TSTI screws (see below) and ensure that screws are neither too posterior or anterior
- Placement of antegrade or retrograde anterior column screw (screw will appear intra articular but confirm that it is extra articular on an obturator view)
- Assessment of 'varus/valgus' of hemipelvis looking at ischial spine symmetry
- Placement of anterior pelvic screws during pubic symphysis ORIF to ensure they are neither posterior or anterior.

Tips & tricks

- Do not trust this view to assess SI joint diastasis
- Look at adequate reduction of the posterior column (quadrilateral plate) to ensure hat it has been lateralized appropriately

Airplane C arm to degree determined by looking at sagittal CT scan of the sacrum



Obturator oblique view

Visualization

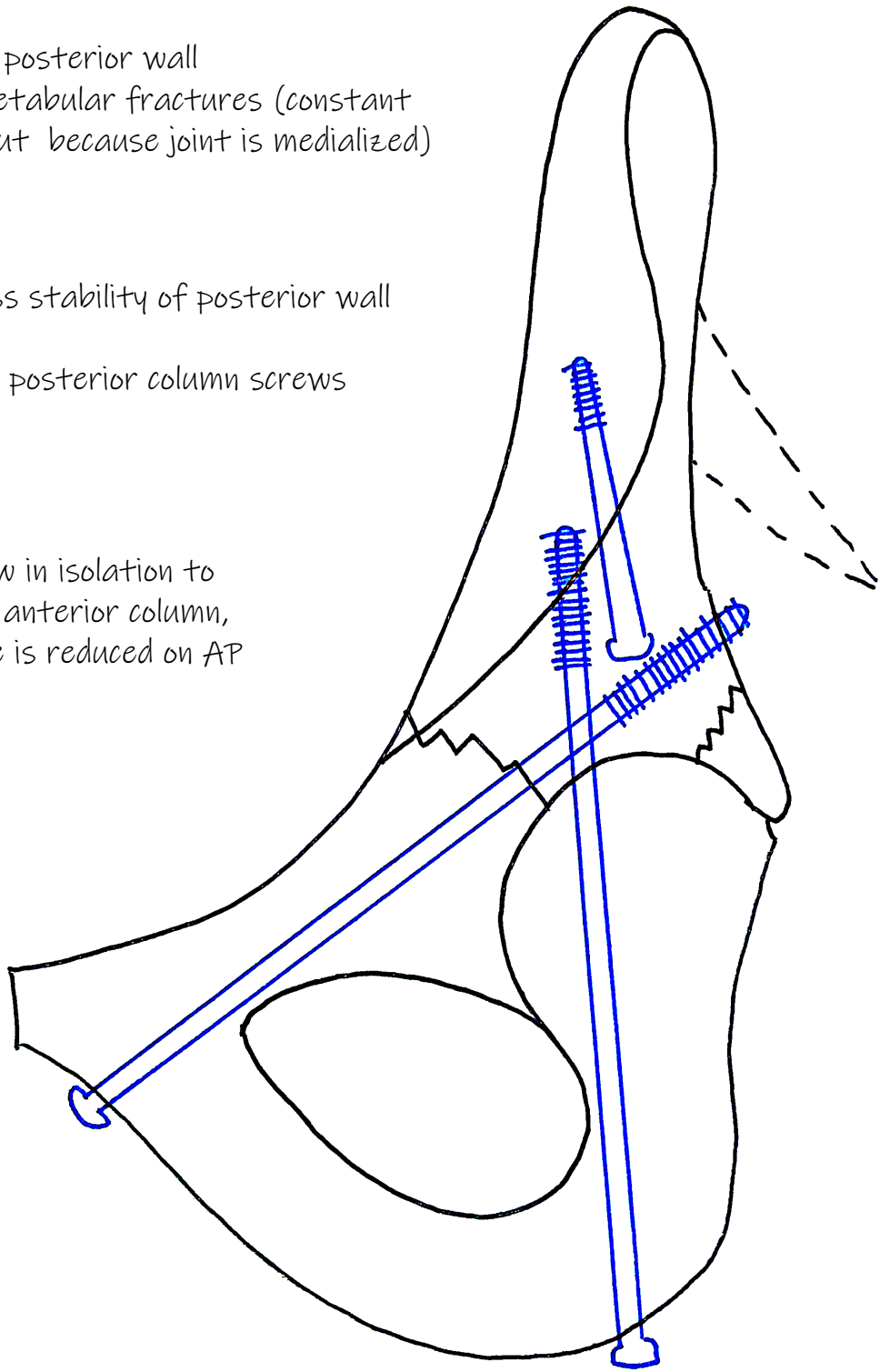
- Anterior column and posterior wall
- Spur sign in ABC acetabular fractures (constant fragment sticking out because joint is medialized)

Used for

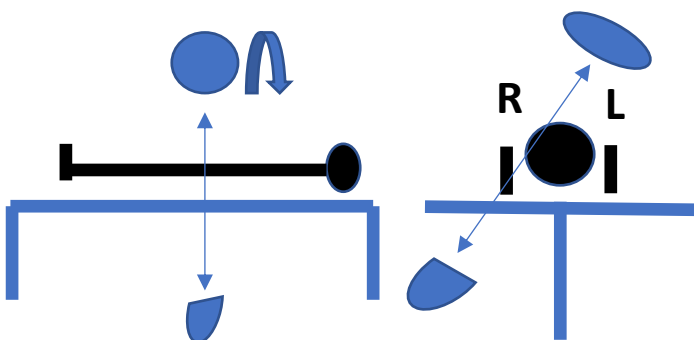
- EUA of hip to assess stability of posterior wall fracture
- Anterior column and posterior column screws

Tips & tricks

- Do not use this view in isolation to assess reduction of anterior column, ensure that II line is reduced on AP view



For left side obturator view, roll C-arm towards the left



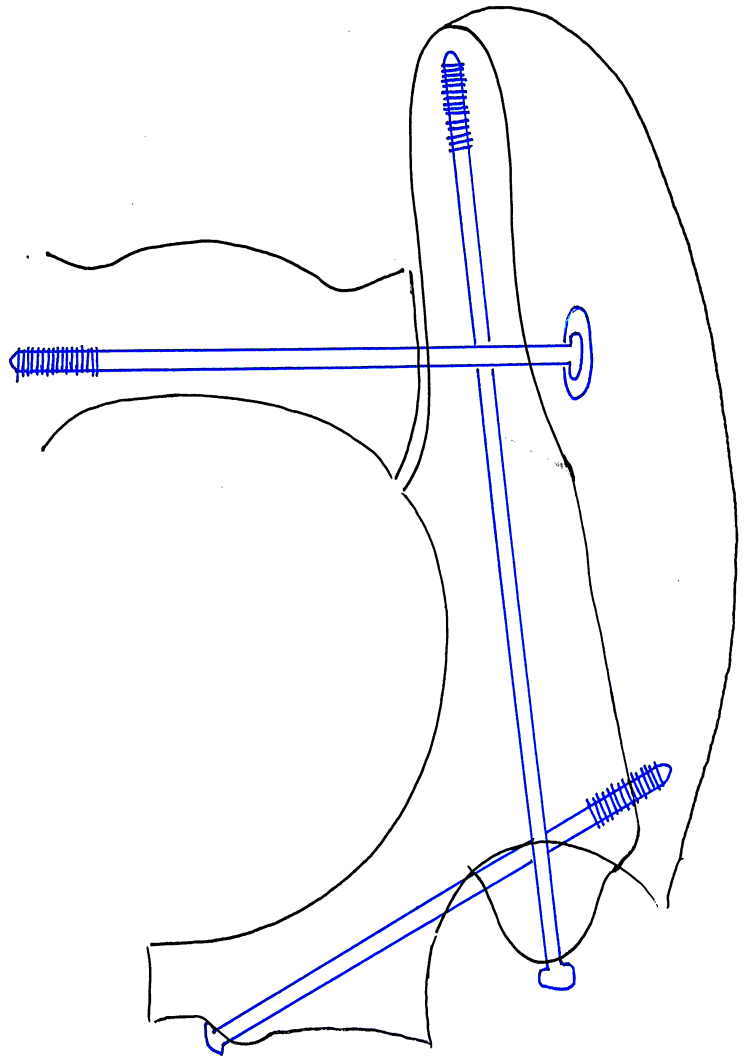
Inlet obturator view

Visualization

- AIIS profile
- Supra acetabular corridor specifically inner and outer table of iliac wing

Used for

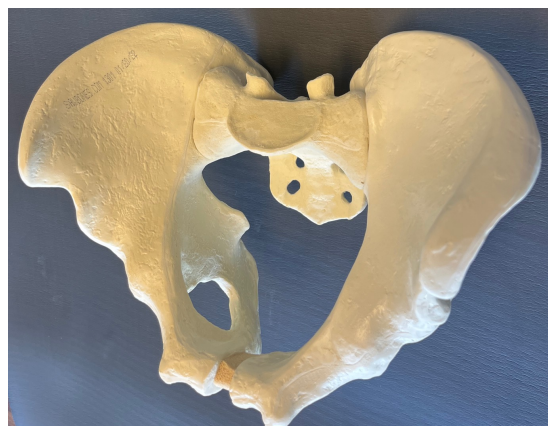
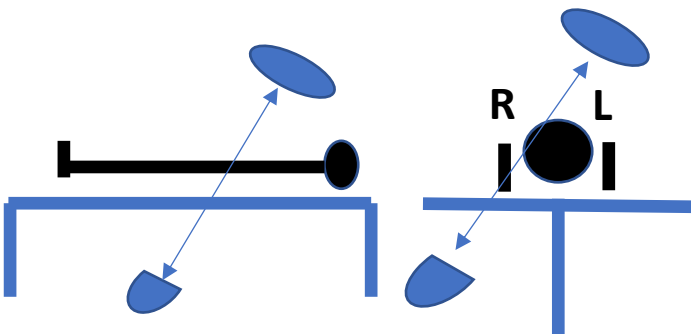
- LC 2 or reverse LC2 screw, supra acetabulum external fixator, iliac bolts)
- SI and TSTI screw



Tips & tricks

- Use this view during insertion of wire for TSTI screw on the contralateral side to see when the wire is penetrating the outer table and on the ipsilateral side when inserting an SI or TSTI screw to visualize when screw/washer is down)
- This view highlights the AIIS which is the starting point for an LC2/supra acetabular external fixator)

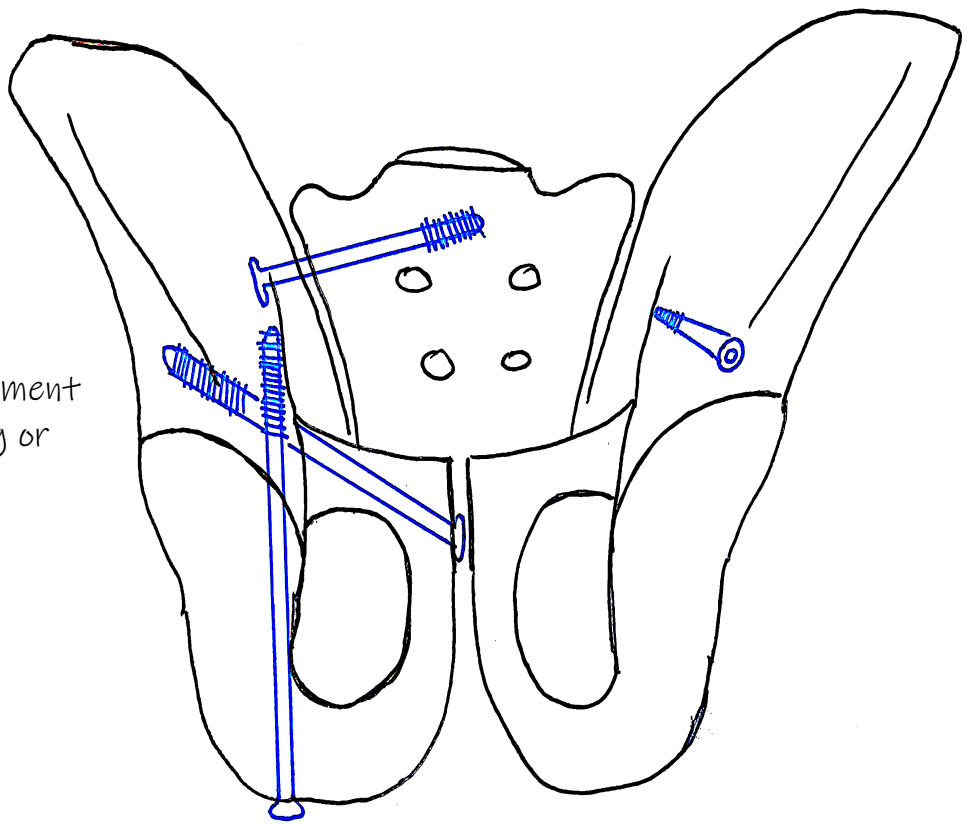
For left side inlet obturator view, roll C-arm towards and inlet and towards the left



Outlet view

Visualization

- Helps assessment of vertical pelvic displacement through posterior ring or anterior ring

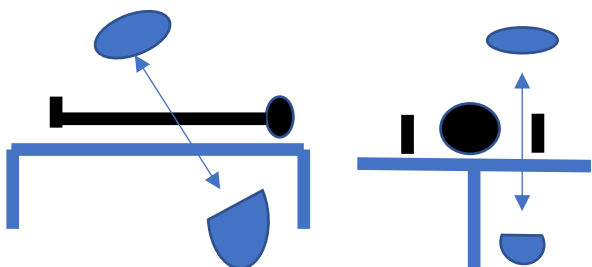


Used for

- How cephalad or caudal a sacro-iliac (SI) screw or trans sacral trans iliac screw (TSTI) are.
- Help assess length and safe placement of anterior ring ORIF screws

Tips & tricks

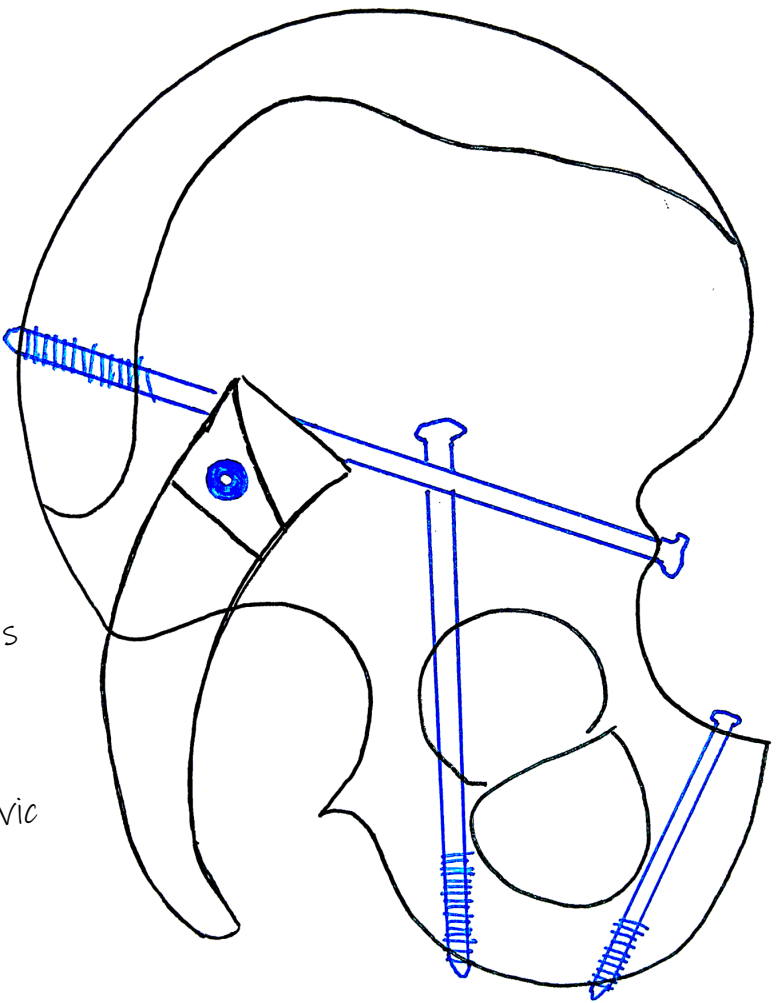
- Excellent view to assess diastasis of the SI joint
- Possible transverse fracture of L5 in vertical shear



Lateral view

Visualization

- Lateral sacrum with overlap of both ilio-cortical densities (ICD) (floor of gutter of L5 nerve root) and greater sciatic notches (GSN)

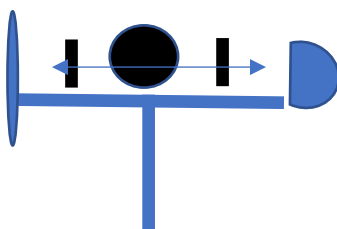
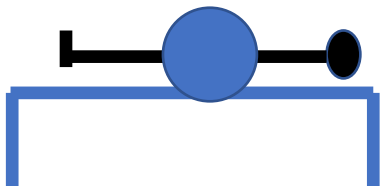
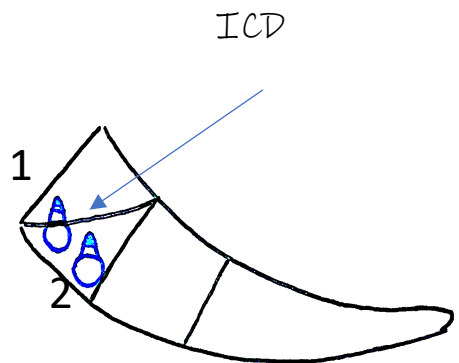
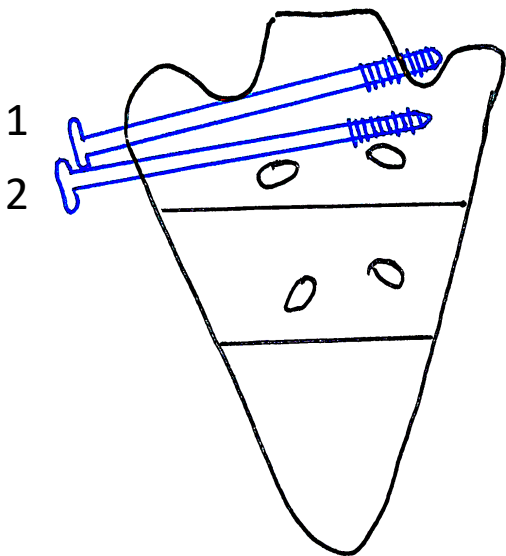


Used for

- Sacro-iliac (SI) screws and trans sacral trans iliac screw (TSTI)
- Length of an LC2 screw
- Visualization of kyphosis of the sacrum in U or H type lumbo-pelvic dissociation.

Tips & tricks

- SI and TSTI screws must be located distal to the ICD to avoid injury to the L5 nerve root. Part of the screw (tip) can be proximal to it, as long as it is in the center of S1 body)



Outlet obturator view

Visualization

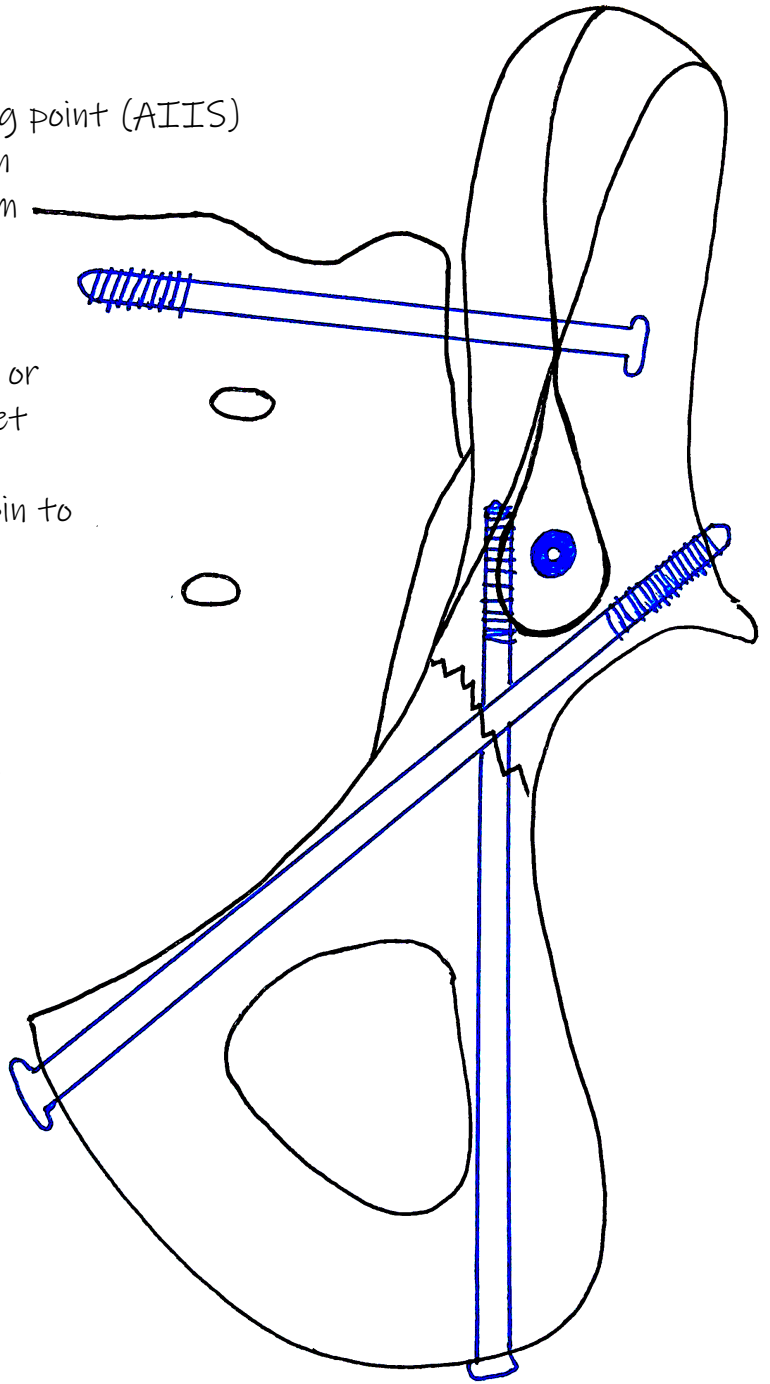
- So called tipi which is the starting point (AIIS) of an LC2 or supra-acetabular pin
- Anterior column of the acetabulum

Used for

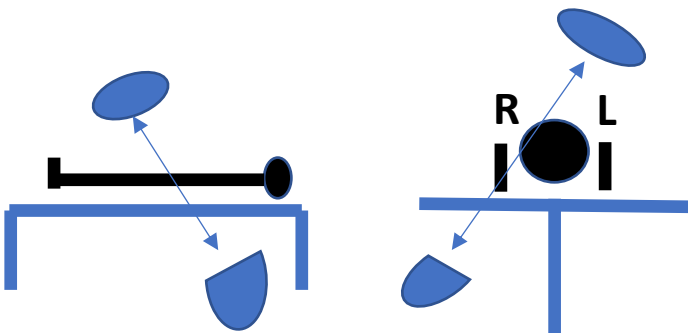
- Anterior column screw antegrade or retrograde (combined with an inlet view)
- LC2 screw or supra-acetabular pin to identify the starting point

Tips & tricks

- Obtaining this view to start an LC2 screw or a supra-acetabular pin is challenging because the operators' hands are in the way. Start both wires using an iliac view combined it with an inlet obturator
- The size of the anterior column on this view when placing an anterior column screw appears larger than on an obturator view.



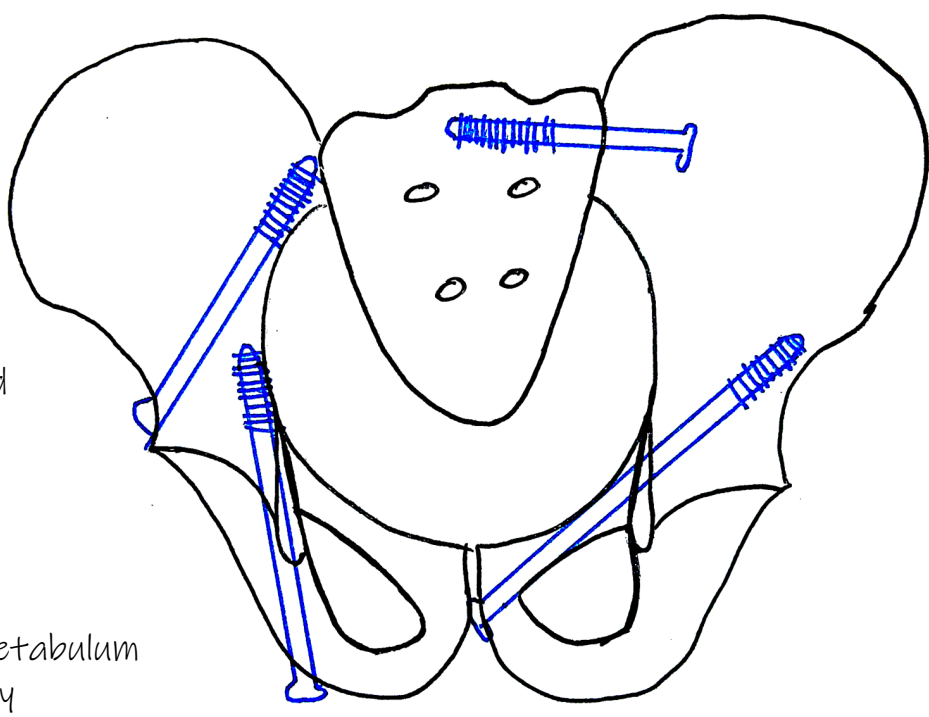
For left side outlet obturator view, roll C-arm towards an outlet and towards the left hemipelvis



AP view

Visualization of

- Ilio-pectineal line (IP) represents the anterior column
- Ilio-ischial line (II) represents the posterior column
- Source of the acetabulum
- Sacral fracture
- Shenton's line
- Iliac wing morphology and symmetry
- Pubic symphysis injury



Used for

- The overall pelvic and acetabulum morphology and symmetry
- Hip dislocation

Tips & tricks

- The AP view is far more important than the Judet views (iliac and obturator) to ensure adequate reduction of the anterior and posterior columns
- AP view should always be used to confirm appropriate and safe placement of column screws even when deemed safe on the views used to place them

