

# 17 Pelvic Fractures – adult + paediatric

## PRO TIPS

- Haemodynamically unstable pelvis
  - Realistically this may be a once a career opportunity for you to wear your pants on the outside, you won't have the time or luxury of muddling through. LEARN HOW TO PELVIC PACK! It is not difficult, because most of the dissection has been done for you by the injury.
  - In the world's worst game of 'pass the parcel' no one wants these patients to die in their department (ED, radiology, critical care). You need to be prepared to take responsibility for them potentially dying on your operating table.
  - The earlier you can stop the bleeding the easier everything gets.
  - There is no one algorithm that can tell you what to do, it is dependent on the combination of institutional resources, personnel, time of day and common sense.
  - The time to work out how you are going to manage this problem is when you first arrive at your hospital, not in the middle of the night with the patient in front of you.
- The residual soft tissues are the key to the management of pelvic injuries, x-rays and CT only provide a surrogate marker. It is the addition of the clinical assessment (mechanism and examination findings) that will help determine which patients need a dynamic assessment.
- Posterior ligamentous injuries, in particular, are frequently associated with long term disability. Manage patient expectation early.

## UK ISCP TRAUMA + ORTHOPAEDIC SYLLABUS

### Knowledge

0 = No experience expected / 1= Has observed or knows of / 2= Can manage with assistance / 3 = Can manage whole but may need assistance / 4= Able to manage without assistance including potential common complications  
Green text = Oxford Trauma Service suggestions

Topic	CORE	ST3-ST8	>ST8
<b>Anatomy</b>			
Clinical and functional anatomy with pathological and operative relevance	3	4	4
Surgical approaches to the limbs and axial skeleton	2	4	4
<b>Operative</b>			
Management of closed peri-articular fractures	2	4	4
Management of closed + open fractures	3	4	4
<b>Pelvis</b>			
Pelvic/acetabular fracture stabilisation	2	3	3
Recognition of visceral/neurovascular damage	3	4	4

### Technical

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Topic	CORE	ST3-ST8	>ST8
Pelvic fracture external fixator application	1	3	4
Pelvic fracture ORIF	0	1	3
Sacroiliac joint percutaneous screw fixation	0	1	3
Sacrum ORIF	0	1	3

Please find below, resources that cover the syllabus objectives.

## DISCUSSION SLIDES

- OTA Resident Lectures – [Anatomy of the Pelvis + Acetabulum](#)
- OTA Resident Lectures – Radiographic Evaluation + Classification of the Pelvic Ring (pending)
- OTA Resident Lectures – [Acute Management of Pelvic Ring Injuries](#)
- OTA Resident Lectures – [Definitive Management of Pelvic Ring Injuries](#)
- OTA Resident Lectures – [Lumbopelvic Fractures and Fixation](#)
- OTA Resident Lectures – [Paediatric Pelvis and Acetabulum Fractures](#)

## RECOMMENDED KNOWLEDGE REVIEW RESOURCES

### PELVIC FRACTURES - ADULT

- Rockwood + Green Chapter 49a: Pelvic Ring Injuries p1964-2080
- BOA Standards for Trauma – [The Management of Patients with Pelvic Fractures](#)
- BOA Standards for Trauma – [The Management of Urological Trauma Associated with Pelvic Fractures](#)
- Orthobullets – [Pelvic Ring Fractures](#)
- Orthobullets – [SI dislocation and crescent fractures](#)
- JBJS Clinical Summary – [Pelvic Fractures](#)

### PELVIC FRACTURES - PAEDIATRIC

- Rockwood + Green Chapter 22p: Pelvic and Acetabular Fractures p845-882
- Orthobullets – [Pediatric Pelvis Trauma Radiology](#)
- Orthobullets – [Pediatric Pelvis Fractures](#)
- Orthobullets – [Pelvic Anatomy](#)
- Orthobullets – [Title](#)
- [Orthobullets – Pediatric Pelvis Trauma Radiology](#)

### SCORING / CLASSIFICATION SYSTEMS

- [AO/OTA](#)

## RECOMMENDED TECHNICAL REVIEW RESOURCES

### PELVIC FRACTURES

- AO Surgery Reference – [Pelvic Ring](#)

#### Radiological Evaluation

- [Radiologic evaluation](#) – Kinik (15 mins)
- [Evaluation and indications](#) – Routt (10 mins)

#### Technique

- [Pre-op planning of iliosacral screws](#) – Hake (8 mins)
- [Iliosacral screws](#) – Routt (11 mins)
- [Iliosacral screws](#) – Eastman (15 mins)
- [Percutaneous SI screws](#) – Tidwell (17 mins)
- [Intfix](#) – Curtis (9.5 mins)
- [Extraperitoneal packing and supra-acetabular external fixation](#) – Mauffrey (useful for EPP, please note that iliac crest ex-fix is sufficient and in many cases preferable as it does not compromise use of the LC2 corridor for definitive fixation).
- [Posterior approach](#) – Matityahu (15 mins)
- [Posterior approach](#) – Jones (24 mins)
- [EUA posterior wall](#) – Yee (8.5 mins)
- [Modified Stoppa](#) – Mauffrey (8 mins)
- [SI + symphyseal plates](#) – AO (10 mins)
- [Posterior sacral plates](#) – AO (5 mins)

#### Outcome

- [Surgical complications](#) – Matta (15 mins)

### SMITH + NEPHEW

- [Trauma Education](#)
- [Trauma Products + Guides](#)

### STRYKER

- [Surgeon Education](#)
- [Trauma Products + Guides](#)
- [Pelvic Pro](#) – Plating system

### DEPUY SYNTHES

- [Educational Material](#)
- [Trauma Products + Guides](#)

- [Pelvic Implants and Instruments](#)

#### **MIZUHO OSI**

- [Modular Table Setup](#) (including iOS + Android Apps)

### **GUIDES + PROTOCOLS**

#### **MELBOURNE PAEDIATRIC FRACTURE GUIDELINES**

- [Guidelines](#)

NB you will need to select the sections from the top banner - Emergency Department, Fracture Clinic, Education, Family Resources

#### **NICE (NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE)**

- [Major trauma: assessment and initial management \(NG39\)](#)
- [Fractures \(complex\): assessment and management \(NG37\)](#)
- [Post-traumatic stress disorder \(NG116\)](#)
- [Rehabilitation after traumatic injury \(NG211\)](#)