

# Sensitivity of Physical Examination in Blunt Pelvic Trauma: What We Think We Know

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## INTRODUCTION

- Pelvic fractures account for 3% of skeletal fractures with a 10-16% death rate
- Pelvic fractures that disrupt the pelvic ring are 2-4% of all pelvic injuries with a 45% death rate
- Diagnosed by physical exam, X-ray, and CT scan
- Intervention includes pelvic binding, packing, and interventional radiology
- Treatment includes nonoperative/operative fixation
- Sensitivity is how well the method of detection is at discovering an injury

### References

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## HYPOTHESES

- Sensitivity/Specificity of pelvic examination in trauma bay is adequate for screening pelvic trauma
- Sensitivity/Specificity of pelvic radiograph is similar to physical exam

## METHODS

- Retrospective study of database screened for pelvic injury from January 1<sup>st</sup>, 2015 to May 1<sup>st</sup>, 2018 selecting 776 patients
- Microsoft Excel
- PowerChart
- accessANYware
- MedCalc

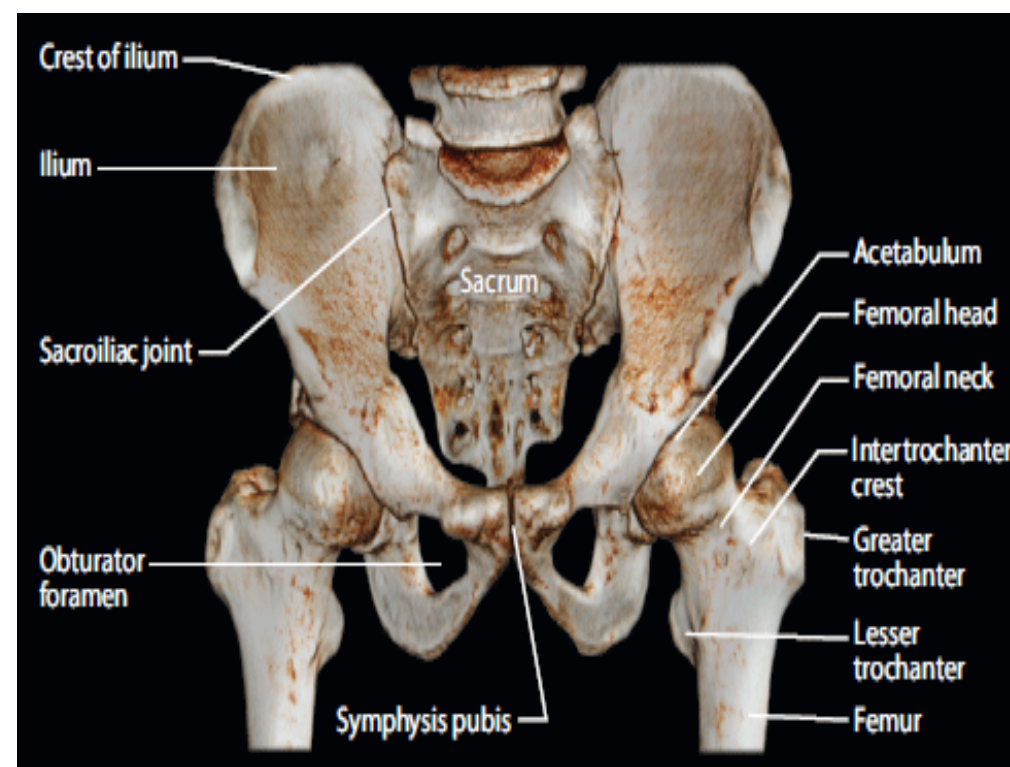
## EXCLUSIONS

- Pediatrics
- Penetrating traumas
- Transfers/self-transfers
- Isolated hip/ coccyx/ sacrococcyx fractures
- Pelvic binder placement
- Subacute fracture
- No trauma contact

## RESULTS

Physical Exam			
Diagnosis		Tender/Unstable Positive	Nontender/Stable Negative
	Fracture Positive	247	134
	No fracture Negative		
	n = 381		Sensitivity: 64.83%

Physical Exam			
X-ray		Tender/Unstable Positive	Nontender/Stable Negative
	Fracture Positive	179	65
	No Fracture Negative		
	n = 244		Sensitivity: 73.36%



## LIMITATIONS

- The data of the retrospective review could not assess false positive, true negative, specificity, and positive predictive value

## CONCLUSIONS

- 381 patients from the retrospective data were analyzed
- Physical exams are less sensitive than X-rays
- Continue the study Prospectively

## CLINICAL IMPLICATIONS

- Decrease time to definitive diagnosis
- Decrease time to therapeutic interventions
- Increase survival

## ACKNOWLEDGEMENTS

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