



# Application of Pelvic Splint

## 1. Purpose

This CWI provides guidance on the correct application of a pelvic splint to both adult and paediatric patients.

SCOPE OF PRACTICE				
MICA <input checked="" type="checkbox"/>	ALS <input checked="" type="checkbox"/>	BLS <input checked="" type="checkbox"/>	CERT/ACO <input checked="" type="checkbox"/>	Patient Transport <input checked="" type="checkbox"/>

### Indications

- Suspected pelvic fracture.
- An awake patient complaining of pain to pelvic area including lower back (sacroiliac joint), groin or hips.
- An unconscious or altered conscious state patient with significant mechanism of injury.
- In the case of traumatic cardiac arrest, a pelvic splint should be applied as a matter of clinical priority if mechanism of injury is suggestive of a pelvic fracture.

### Contraindications

- Impaled object preventing application.

### Clinical Precautions

- The pelvic splint should be appropriately sized for the patient. Smaller paediatrics may require a sheet/towel/pillow-case as a pelvic wrap.
- The following sizes should be considered for the SAM splint.

SAM splint size	Hip circumference
Large	91 – 152 cm
Small	69 – 112 cm

- A traction splint to limbs should not be applied until after the pelvis has been stabilised.

### Equipment Required

- SAM pelvic splint device

**OR**




- Sheet, towel, blanket, 50mm tape

### Health, Safety and Welfare

- Apply standard precautions.
- Modify as informed by the dynamic risk assessment.
- It is recommended that paramedics wear gloves at a minimum.



## 2. Instructions

KEY POINTS	EXPLANATORY NOTE	Y/N
<p><b>Prepare patient</b></p> <ol style="list-style-type: none"> <li>1. Either cut off all outer clothing or remove all objects from pockets.</li> <li>2. Assess patient's pain score. Analgesia may be required prior to this procedure.</li> <li>3. Ensure the patient is lying supine where possible.</li> <li>4. Commence reduction of pelvic fracture by realigning legs to neutral position.</li> </ol>	 <p>Patients with femur fractures and other limb trauma will need consideration for those injuries (i.e. handling, splinting, pain relief)</p>	
<p><b>Position SAM splint</b></p> <ol style="list-style-type: none"> <li>5. Feed black belt up through the orange locking clip and return it toward the patient's right hip.</li> <li>6. Slide splint underneath the patient's thighs with orange locking clip on left side.</li> <li>7. Shift and adjust position so that the orange clip sits offset toward left hip.</li> <li>8. Locate the greater trochanters on each side.</li> <li>9. Slide the splint into position over the trochanters.</li> <li>10. If necessary, have an assistant gently lift the hips to allow for correct positioning.</li> </ol>	 <ul style="list-style-type: none"> <li>• Splint may be applied with the patient in the lateral position if necessary.</li> <li>• Splint may also be slid down from above the pelvis.</li> <li>• Misplacement of pelvic binders can reduce the degree of fracture reduction.</li> </ul>	
<p><b>Fasten SAM splint</b></p> <ol style="list-style-type: none"> <li>11. Feed black belt up through the orange locking clip and return it towards the patient's right hip</li> <li>12. One operator should position themselves on the patient's left hip and hold orange handle.</li> <li>13. The second operator should position on the right side and hold the black handle on the black strap.</li> <li>14. Both operators should pull simultaneously in opposite directions until the buckle clicks and the belt is locked.</li> <li>15. Do not release tension on the black handle. Attach the Velcro side of the black handle to the splint.</li> <li>16. Do not re-adjust the tension once the buckle clicks.</li> </ol>		

### If using sheet wrap

17. Fold the sheet smoothly in half along its longest edge. Repeat folding as necessary until the shorter width is approximately 30 cm (adult). For paediatrics fold till an appropriate width is attained.
18. Slide one end of the sheet under the knees/thighs and pull through to the other side. Ensure equal lengths remain on either side of legs.
19. Slide sheet gently back and forward and progressively upward until the patient's greater trochanters are centrally located within the width of the sheet.
20. Gather each end of the sheet and bring them evenly together so that they are taut and directly above the patient (be careful to not lift legs with movement).
21. Tightly roll the sheet towards the patient using both hands until the roll sits against the patient legs.
22. Continue to roll sheet tighter using alternating hands.
23. With either hand firmly tightened, maintain grip whilst applying 50mm tape from the hip closest to the person rolling right across to the other hip.
24. Repeat tightening and taping position for other hand.
25. If necessary, repeat tightening process one more time for each hand. Do not remove original tape: rather replace with third and fourth strip.

### Post splinting care

26. Place towel or blanket between the knees.



27. Tie a broad fold bandage around both legs just above the knees.
28. Tie a figure of eight around the ankles to hold the feet together.
29. Slightly flex the knees and support with a rolled blanket or in position of comfort.

#### Reassess patient

30. Reassess patient's pain level.
31. Assess for any pressure points produced in splinting.
32. Reassess peripheral perfusion of limbs.

#### Removal of splint

33. **Once applied, a pelvic splint should only be removed by an Emergency Physician. DO NOT CUT.**
34. Pull black handle from the Velcro attachment on right hip.
35. Whilst maintaining tension, slowly allow sling to loosen.
36. Leave sling underneath patient and reapply if haemodynamic stability cannot be achieved.
37. If using a sheet wrap, grasp roll in same manner as when tightened. Cut or remove tape once securely grasped.
38. Leave sheet underneath patient and reapply if haemodynamic stability cannot be achieved.



#### **DO NOT CUT the splint.**

The release of the reduction forces can lead to sudden decompensation of patient.

### 3. Assessment

Candidate's name and date	Comments	

Instructor's name	Satisfactory	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No

<b>Document name</b>	<b>APPLICATION OF PELVIC SPLINT CLINICAL WORK INSTRUCTION</b>		
<b>Applies to</b>	<input checked="" type="checkbox"/> MICA	<input checked="" type="checkbox"/> ALS	<input checked="" type="checkbox"/> Patient Transport
	<input checked="" type="checkbox"/> BLS	<input checked="" type="checkbox"/> CERT/ACO	
<b>Document no.</b>	CWI/OPS/103	<b>Stored:</b>	SQL to complete
<b>Version:</b>	4.0	<b>Review:</b>	<input type="checkbox"/> Annual <input checked="" type="checkbox"/> 3-Yearly
<b>Division</b>	Medical Directorate		
<b>Responsible Executive</b>	Medical Director		
<b>Responsible Manager</b>	Manager, Clinical Practice Guidelines — 9840 3980		
<b>Review date</b>	By <b>28 August 2022</b> , or as required for accuracy.		
<b>Relevant National Safety and Quality Health Service Standards</b>	<b>To be completed by the National Standards Accreditation Lead:</b> <input type="checkbox"/> 1. Clinical governance <input checked="" type="checkbox"/> 2. Partnering with consumers <input type="checkbox"/> 3. Healthcare-associated infection <input type="checkbox"/> 4. Medication safety <input type="checkbox"/> 5. Comprehensive care <input type="checkbox"/> 6. Communicating for safety <input type="checkbox"/> 7. Blood management <input checked="" type="checkbox"/> 8. Recognising and responding to acute deterioration <input type="checkbox"/> NSQHS standards are NOT applicable		
<b>Material related documents</b>	The following documents are material to this clinical work instruction: <ul style="list-style-type: none"> <li>N/A</li> </ul>		

## Version control and change history

Version	Date approved	Date superseded	Amendment
1.0	28 August 2019	Current	Merge and rename of CWI/OPS/103 and CWI/OPS/109. Addition of indications, contraindications, clinical precautions. Addition of assessment section.