



TACTICAL MEDICINE ORTHOPEDICS™

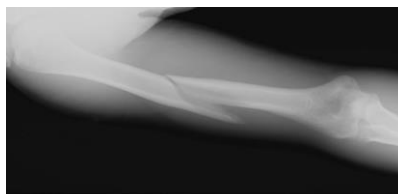


TAC MED OPERATOR®
... capabilities up for the task ...

TMO XTRAC™ PAKS

- Terminology & Nomenclature
- Orthopaedic Challenges
- Assessment & Care Review
- Long-Axis Application
- Off-Axis Application
- Traction Integration
- Pelvic Stabilization
- Return To Service

Performance Training Guidelines



... appendicular integrated immobilization system ...



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Terminology

Integrated Immobilization

The act of combining orthopedic immobilization principles of...



into a single multifunctional splint; so when applied, two or more applied biomechanical forces synergistically interact with a combined effect greater than the sum of their individual effects.



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Terminology

Tac Med Operator®

A multifunctional long bone orthopedic quick splint that delivers rigid long-axis immobilization with integrated off-axis and dynamic traction capabilities, from a posterior enveloping framesheet with formable medial lateral support walls, that...

- overcome gravity effects
- prevent movement mitigating pain
- provide soft-tissue and skeletal alignment
- contain massive soft-tissue trauma
- provide off-axis joint immobilization
- tamponade hemorrhage
- overcome contractive muscle spasm
- control distal bone end retraction
- balance applied biomechanical forces
neutralizing proximal limb root pressure





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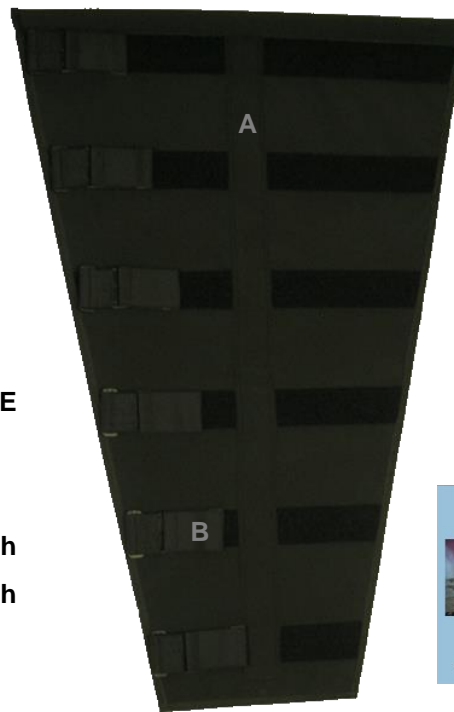
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Nomenclature

“ALPHA Pak” TMO-36A

(Parts / Model Capability Based)

- (A) Operator Framesheet LE
- (B) Kinetic Closure Straps LE
- (C) Off-Axis Adaptor
- (D) Monostay Collapsible Tube LE
- (E) Monostay Extension Tube
- (F) ComposiTrac® Bar
- (G) ComposiTrac® Storage Sheath
- (H) ComposiTrac® Extremity Hitch
- (I) Field Application Guide
- (J) Operator Case





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Terminology

Pelvic Stabilization

The act of stabilizing an injured pelvis to provide integrity to pelvic ring to reduce hemorrhage from bone ends and venous disruption, minimize pain and pelvic movement during casualty movement, and provide for general stabilization of pelvis until definitive stabilization can be achieved.





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www.SPLINT.com
311010

Terminology

Pelvic Stabilization Device™

An orthopedic quick splint stabilization device that provides for external pelvic ring integrity using a circumferential enveloping framesheet with midline applied single-point bilateral retractable closure system, applied by one person that ...

- provides external pelvic ring integrity
- provides soft-tissue skeletal alignment
- overcomes lateral pelvic gravity effects
- provides for anterior surgical access
- tamponades venous and bone end hemorrhage
- stabilizes internal movement mitigating pain
- provides for uniform circumferential closure
- provides variable pressure controlled closures





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Nomenclature

Pelvic Stabilization Device™

Model PSD-44

Unit of Issue

Framesheet Size: 6" x 44"

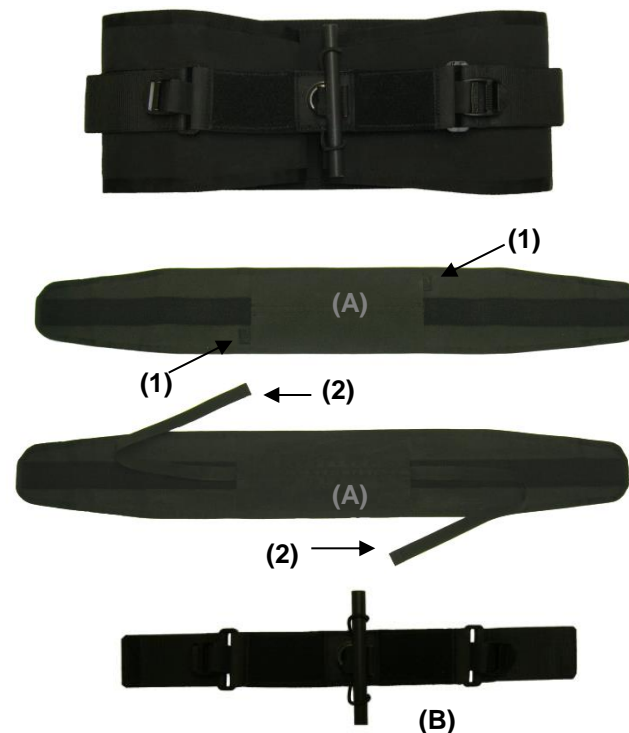
Bilateral Tensor Strap: 2" x 8"

Total Unit Weight: 0.5 lb / 0.2 kg

(A) Pelvic Framesheet

- 1.) Static Compression Straps stowed (position for application)
- 2.) Static Compression Strap deployed (unstowed)

(B) Bilateral Tensor Strap





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Nomenclature Unit of Issue



TMO-36A <i>Alpha Pak</i>	TMO-36B <i>Bravo Pak</i>	TMO-36C <i>Charlie Pak</i>	TMO-36D <i>Delta Pak</i>
Pak Size: 2" x 7" x 13" Weight: 2.1 lb / .95 Kg	Pak Size: 3" x 7" x 13" Weight: 2.7 lb / 1.25 Kg	Pak Size: 4" x 8" x 13" Weight: 3.3 lb / 1.5 Kg	Pak Size: 6" x 8" x 13" Weight: 5 lb / 2.3 Kg
Capabilities: Quantified Dynamic Traction Long-Axis Immobilization Off-Axis Immobilization (1) Long Bone (Lg) Splint	Capabilities: Quantified Dynamic Traction Long-Axis Immobilization Off-Axis Immobilization Pelvic Stabilization (1) Long Bone (Lg) Splint (1) Pelvic Splint	Capabilities: Quantified Dynamic Traction Long-Axis Immobilization Off-Axis Immobilization Pelvic Stabilization (2) Long Bone Splints (Large & Small) (1) Pelvic Splint	Capabilities: Quantified Dynamic Traction Bilateral Dynamic Traction Long-Axis Immobilization Off-Axis Immobilization Pelvic Stabilization (3) Long Bone Splints (2 Large & 1 Small) (1) Pelvic Splint

no contraindications... just performance!

... immobilize femur and stabilize injured pelvis simultaneously ...



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Orthopaedic Challenges



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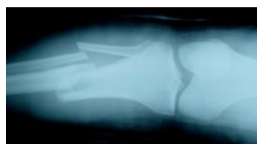
Extremity & Pelvic Trauma Present Two Primary Challenges:

Hemorrhage Control & Structural Instability

Limb-threatening
Musculoskeletal
Trauma

Radius/Ulna Fracture
250-500 mL

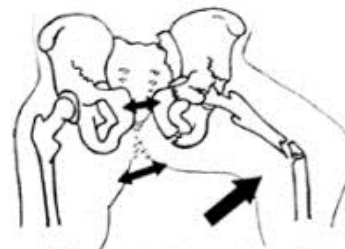
Humerus Fracture
500-750mL



Tibia/Fibula Fracture
500-1000 mL

Life-threatening
Musculoskeletal
Trauma

Pelvic Fracture
1000 mL-massive



Femur Fracture
1000-2000 mL



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Hemorrhage Control

“every red blood cell counts”

1. Direct Pressure

Field Note: Apply pressure dressing/bandage. Consider using pressure point for immediate hemorrhage control when indicated. Elevation of extremity has not been shown to slow hemorrhaging, and may further aggravate musculoskeletal trauma.



2. Tourniquet

Hemorrhage not controlled by pressure dressing or pressure point, tourniquet application is next reasonable step that is not only safe, but lifesaving.



3. Hemostatic Agents

Field Note: Apply tourniquet first to control hemorrhage and allow time for hemostatic agent (Celox, QuikClot) to begin effective clotting (30 to 90 seconds).





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Hemorrhage Control

“every red blood cell counts”

4. Immobilization

Extremity and pelvic hemorrhage are treated by means of immobilization and pelvic stabilization.

The goal is to restore the normal anatomic relationships in the extremities and pelvis to tamponade hemorrhage spreading through disrupted tissue planes.

The pelvis does not fill with blood like water poured into a cone-shaped bucket, it spreads through the disrupted tissue planes like the extremities, extending through retroperitoneum, vertically out of pelvis into the abdominal retroperitoneum up to thorax, and anteriorly around bladder and anterior abdominal wall.





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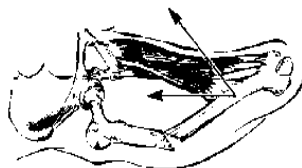
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Structural Instability

“natural forces at work”



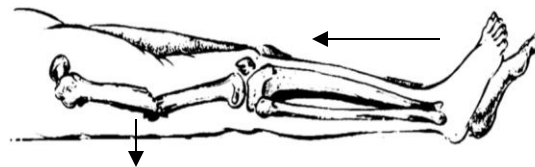
Muscle Spasm Effect

- Muscle Spasm Shortens Extremity
- Decreases Soft-Tissue Pressure
- Creates Anatomic Soft-Tissue Voids



Gravity Effect

- Gravity Deflects Broken Bone Ends
- Produces Distal Rotation/Angulations
- Depresses Fracture Area Soft-Tissues



Combined Gravity / Spasm Effect



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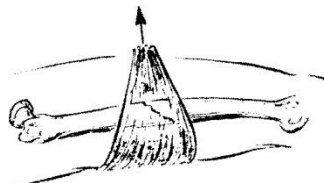
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Structural Stabilization

“overcoming natural forces”



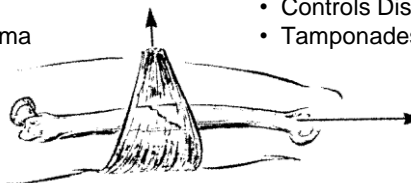
Posterior Enveloping Framesheet

- Overcomes Gravity Effects
- Provides Soft-Tissue Alignment
- Tamponades Bleeding
- Contains Massive Soft-Tissue Trauma



ComposiTrac® Traction Bar

- Overcomes Muscle Spasm Effects
- Provides Skeletal Alignment
- Controls Distal Bone End Retraction
- Tamponades Bleeding



Integrated Synergistic Effect

True anatomic alignment of soft-tissue and bony skeletal structures along their original lines restoring positive tissue pressure with integrated biomechanical applied forces balanced.



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Structural Immobilization

“Applied Biomechanical Forces”

Integrated Immobilization

- Tac Med Operator® posterior enveloping framesheet with it's formable medial lateral support walls, monostay and kinetic closure straps provide for soft-tissue and bony neutral anatomic realignment, overcoming anatomy gravity effects, eliminating anatomic voids and restoring positive tissue pressure to control internal hemorrhage while immobilizing injured extremity as a unit.
- ComposiTrac® bar when integrated into the posterior enveloping framesheet monostay provides the distal skeletal traction necessary to overcome any injured extremity contractive muscle spasm, preventing distal bone end retraction, efficaciously completing the long bone immobilization process.



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... **less movement = less pain, less bleeding, less soft-tissue damage** ...



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Pelvic Instability

“casualty presentation”

Primary Loading Vectors

Three primary loading vectors result in pelvic ring unstable fractures are:

- **Anterior Posterior (AP) Compression**

Lower extremity external rotation suspect anterior posterior compression pelvic injury (open-book).

- **Lateral Compression**

Lower extremity internal rotation suspect lateral compression pelvic injury.

- **Vertical Shear**

Lower extremity vertical displacement suspect vertical shear pelvic injury.





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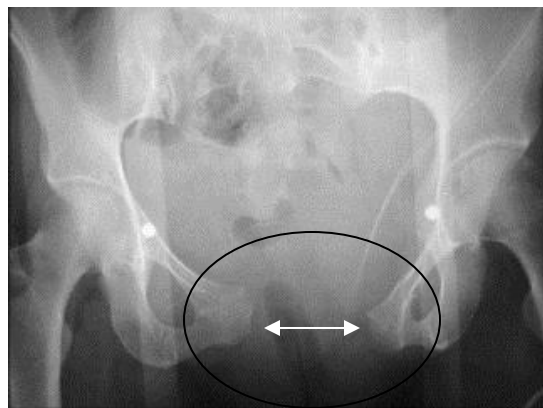
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Pelvic Instability

“Anterior Posterior (AP) Compression”



An anterior posterior compression injury results from an anteriorly directed force applied directly to the pelvis or indirectly via the lower extremities. The result is an external rotation force on the innominate bones and an open-book type injury.



AP compression injuries most often result from head-on motor vehicle collisions in which the patient is a passenger. The injuries also result when a motorcycle accident occurs or when a pedestrian is struck by a vehicle. The force may be directed either from anterior to posterior or from posterior to anterior



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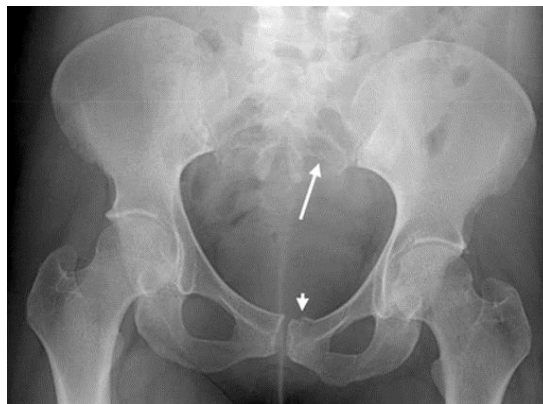
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Pelvic Instability

“Lateral Compression”



A lateral compression injury results from lateral impact of innominate bone, with internal rotation of the pelvis toward the midline.



Lateral compression injuries usually result from side-impact motor vehicle collisions. Pedestrians struck by motor vehicles from the side have this pattern of injury.



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Pelvic Instability

“Vertical Shear”



A vertical shear injury results in vertical translation of the hemi-pelvis. The typical mechanism for this injury involves a fall from a height and landing on an extended limb.



Vertical shear injuries typically occur as a result of a fall from a height, but they can also occur in motor vehicle collisions.



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Pelvic Stabilization

“critical decision making”

Fracture patterns are often unknown, it is possible to exacerbate certain injury patterns if excessive force is applied.

This is particularly true of severe lateral compression or vertical shear injuries.

Determining mechanism of injury and observing casualty presentation will aid in identifying type of pelvic injury, but the treatment remains the same...



Always splint an unstable pelvis, no matter what type of pelvic injury is suspected.

... **less movement = less pain, less bleeding, less soft-tissue damage** ...



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Pelvic Stabilization

“neutral anatomic positioning”

Pelvic Stabilization Device™ ...

The PSD™ is now the initial stabilization choice for immediate management of pelvic ring injuries, and is used acutely in management of exsanguinating pelvic trauma, when pelvic injury is suspected from mechanism of injury; much the same as a cervical collar is used to protect cervical spine from further injury prior to definitive identification and care.

The PSD™ is used to splint pelvis:

- approximating bone ends,
- reducing low-pressure bleeding from bone ends and disrupted veins,
- and overcome gravity effects on lateral soft-tissues providing neutral alignment.





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Assessment & Care Review



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Assessment & Care Review



- Expose injured extremity
- Examine for trauma

DCAP-BTLS

6 Ps



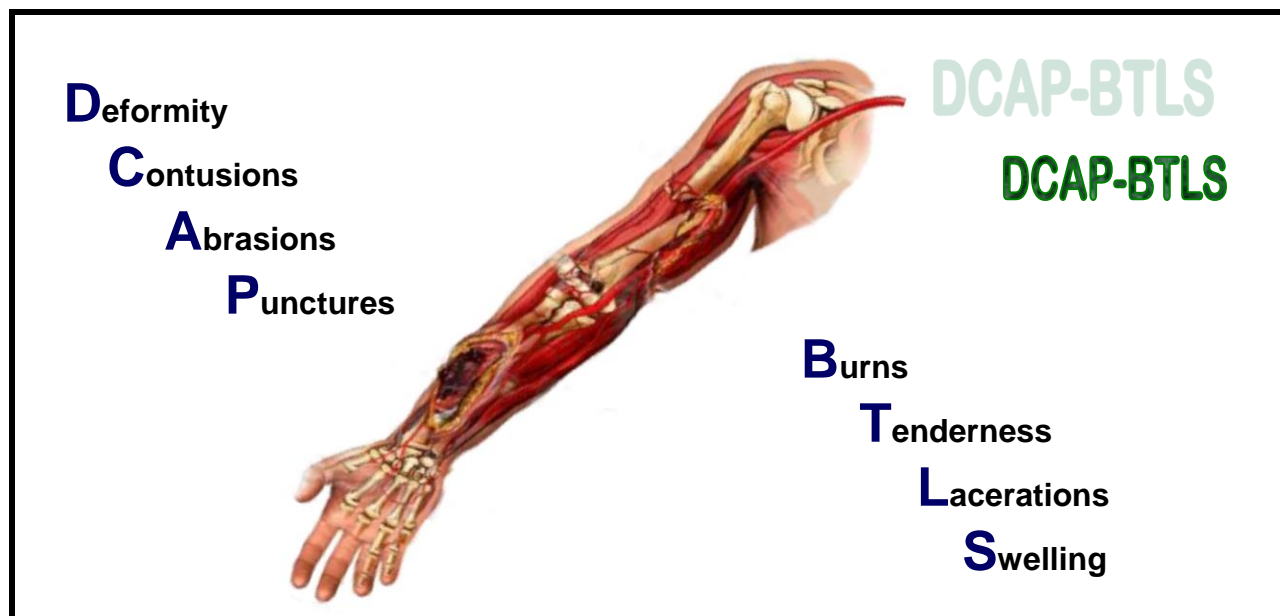
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While performing DCAP-BTLS exam... consider the 6 Ps of musculoskeletal assessment:
“**Pain, Paralysis, Paresthesia (numbness/tingling), Pulselessness, Pallor, and Pressure**”



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Assessment & Care Review



- Control External Hemorrhage
- Cover Open Wounds



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Assessment & Care Review



Assess Distal “CMS

Circulation

- Palpate pulse distal to point of injury.
- Observe skin color for cyanosis or paleness.
- Time capillary refill.

Motor

- Check extremity movement with finger/toe wiggling.

Sensory

- Lightly palpate fingers/toes for appropriate response.



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Assessment & Care Review

Apply Manual In-Line Traction

Apply constant, gentle, long-axis pull using least amount of force necessary to achieve anatomical alignment and oppose effects of muscle contraction, unless contraindicated:

- Patient strongly resists traction;
- Increased pain that persists; or
- Involves joint.

Field Note: Initial long-axis pull usually causes some pain which dissipates quickly and further traction can be applied, when indicated.





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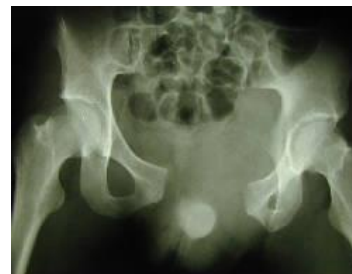
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Assessment & Care Review

Indications for Splinting Pelvis

- Hemodynamically unstable patient with a mechanically unstable pelvis.
- Hemodynamically unstable patient with a suspected pelvic fracture.
- Hemodynamically normal patients with unstable pelvic fractures, for pain control and reducing movement during transfers.
- Stabilizing hip fractures by overcoming gravity effects on lateral hip aspects.
- Stabilizing pelvic region on long board by impeding axial and lateral movement.





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Assessment & Care Review

Mechanism of Injury

Consider likelihood for pelvic injury with high force high-speed impact.

Mechanism: High Energy GSW, Explosive IED Trauma, Low Energy AP Crush/Impact Injuries, MVA, Skiing, Fall From Height, etc.



Observe Injured Pelvis

Examine for trauma (DCAP-BTLS).
Compare asymmetry of contour and posture.

Use mechanism of injury, not palpation of pelvis.

Manipulation of the pelvic girdle could shift bone fragments and cause additional hemorrhaging.





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Assessment & Care Review

Splint Injured Extremity / Pelvis

Long bone off-axis or long-axis immobilization with integrated dynamic traction and/or pelvic stabilization when indicated:

- Long-Axis Immobilization
- Off-Axis Immobilization
- Pelvic Stabilization
- Long-Axis Immobilization with Integrated Dynamic Traction
- Long-Axis Immobilization with Integrated Pelvic Stabilization
- Long-Axis Immobilization with Integrated Dynamic Traction and Pelvic Stabilization
- Off-Axis Immobilization with Integrated Pelvic Stabilization



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Long-Bone Extremity Assessment & Care



Reassess Distal “CMS

Circulation

- Palpate pulse distal to point of injury.
- Observe skin color for cyanosis or paleness.
- Time capillary refill.

Motor

- Check extremity movement with finger/toe wiggling.

Sensory

- Lightly palpate fingers/toes for appropriate response.



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Long-Axis Application



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Lower Extremity Rigid Long-Axis Application





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Lower Extremity Rigid Long-Axis Application

STEP 1 Prepare Splint

- Unfold framesheet.
- Lay framesheet out flat.
- Assemble monostay sections.
- Insert monostay “open end” into framesheet long-axis pocket.





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Lower Extremity Rigid Long-Axis Application

STEP 2 Position Splint

- Position framesheet as proximal as possible under injured extremity for application around limb root.
- Center framesheet midline for application.





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- Assessment & Care Review
- Long-Axis Application
- Off-Axis Application
- Traction Integration
- Pelvic Stabilization
- Return To Service

Lower Extremity Rigid Long-Axis Application

STEP 3 Secure Splint

- Tuck/fold in anterior edges as as needed. Grasp splint to prevent any rotational strap application forces.
- Apply kinetic closure straps from proximal to distal.
- Tension strap elastic prior to hook tip engagement for custom fitting dynamic closure.



Field Note: Fold framesheet edges in to maintain gap for midline extremity reassessment inspection.



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Lower Extremity Rigid Long-Axis Application

Quick Review

STEP 1 Prepare Splint



STEP 2 Position Splint



STEP 3 Secure Splint





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Upper Extremity Rigid Long-Axis Application





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Upper Extremity Rigid Long-Axis Application

STEP 1 Prepare Splint

- Unfold framesheet and lay out flat.
- Assemble “closed end” of monostay keeping doubled “open end” folded.
- Insert doubled end into long-axis pocket leaving monostay distal “closed end” slightly exposed.





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Upper Extremity Rigid Long-Axis Application

STEP 1 Prepare Splint (Continued)



Flip framesheet over, fold base over to inserted monostay end.



Tuck framesheet corners under for upper extremity application.



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Upper Extremity Rigid Long-Axis Application

STEP 2 Position Splint

- Position framesheet as proximal as possible under injured extremity for application around limb root (axilla).
- Center framesheet midline and tuck edges as necessary for application.





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Upper Extremity Rigid Long-Axis Application

STEP 3 Secure Splint



- Grasp splint in a manner that prevents rotational strap application forces from being applied to splint.
- Apply kinetic closure straps from proximal to distal.
- Tension elastic in kinetic closure strap prior to hook tip engagement for custom fitting dynamic closure.



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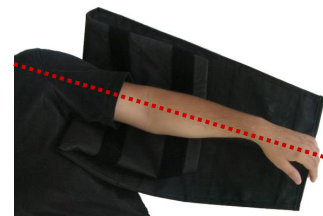
Upper Extremity Rigid Long-Axis Application

Quick Review

STEP 1 Prepare Splint



STEP 2 Position Splint



STEP 3 Secure Splint





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Off-Axis Application



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Lower Extremity Off-Axis Application





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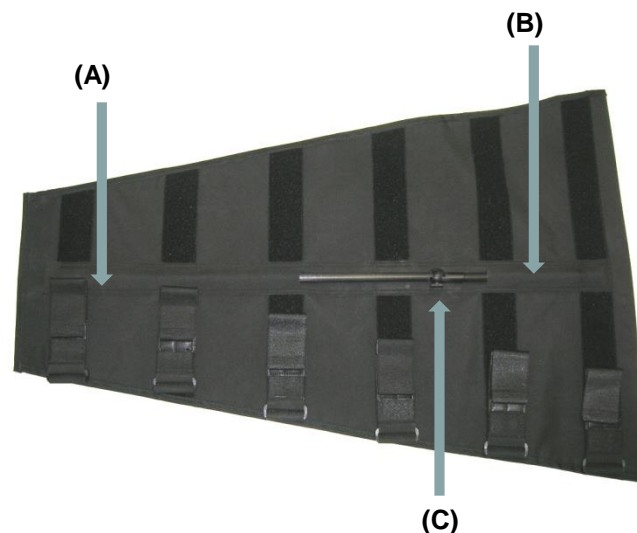
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Lower Extremity Off-Axis Application

STEP 1 Prepare Splint

- Unfold framesheet. Lay out flat.
- Assemble monostay.
- Insert monostay “open end” thru distal open sleeve (A) and into top proximal pocket (B) leaving proximal end slightly exposed.
- Separate monostay at proximal exposed joint between sleeve and pocket and install off-axis adaptor (C).
- Approximate angle of presenting injured extremity.





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Lower Extremity Off-Axis Application

STEP 2 Position Splint

- Position pre-formed framesheet under injured extremity for support.
- Adjust monostay as necessary positioning off-axis adaptor under joint.
- Tuck in medial/lateral edges as needed for application.





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Lower Extremity Off-Axis Application

STEP 3 Secure Splint

- Grasp splint to prevent rotational strap application forces.
- Apply kinetic closure straps from proximal to distal. Tense elastic in strap, prior to hook tip engagement.
- Secure legs together and provide posterior support to injured extremity.





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Lower Extremity Off-Axis Application

Quick Review

STEP 1 Prepare Splint



STEP 2 Position Splint



STEP 3 Secure Splint





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Upper Extremity Off-Axis Application

“Charlie Pak & Delta Pak”





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Upper Extremity Off-Axis Application

“Charlie Pak & Delta Pak”

STEP 1 Prepare Splint

- Unfold framesheet. Lay out flat. Assemble (24”) monostay.
- Insert monostay “open end” into distal sleeve continuing into proximal open ended sleeve leaving proximal end slightly exposed.
- Separate at joint between sleeves and install off-axis adaptor. Approximate angle of presenting injured extremity.



Framesheet UE
Small Splint



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Upper Extremity Off-Axis Application

“Charlie Pak & Delta Pak”

STEP 2 Position Splint

- Position pre-formed framesheet under injured extremity for support.
- Adjust monostay and off-axis adaptor as necessary to joint.
- Place kinetic application strap over/near off-axis adaptor to lock monostay in place (A).
- Tuck medial/lateral edges in as needed for application.





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Upper Extremity Off-Axis Application

“Charlie Pak & Delta Pak”

STEP 3 Secure Splint

- Grasp splint to prevent rotational strap application forces.
- Apply kinetic closure straps from proximal to distal.
- Tense elastic in strap prior to hook tip engagement.





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Upper Extremity Off-Axis Application

Quick Review

STEP 1 Prepare Splint



STEP 2 Position Splint



STEP 3 Secure Splint





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Traction Integration



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Lower Extremity Integrated Traction Application





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Lower Extremity Integrated Traction Application

STEP 1 Prepare Splint

- Unfold framesheet.
- Lay framesheet out flat.
- Assemble monostay sections.
- Insert assembled monostay “closed end” into framesheet long-axis pocket.





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Lower Extremity Integrated Traction Application

STEP 2 Apply Extremity Hitch

- Position hitch under foot/boot heel with orbital band proximal to ankle joint and secure circumferentially in place.
- Tension extremity hitch plantar strap against foot/boot sole bottom with extremity hitch female buckle centered on foot/boot sole bottom.





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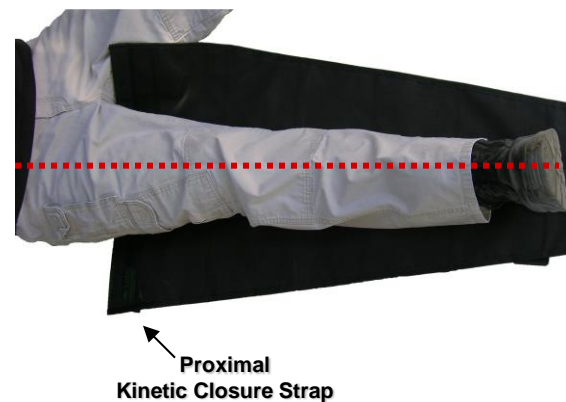
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Lower Extremity Integrated Traction Application

STEP 3 Position Splint

- Position framesheet under injured extremity as proximal as possible (limb root).
- Center framesheet midline for application.
- Apply proximal (isheal) kinetic closure strap to hold splint in position.





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Lower Extremity Integrated Traction Application

STEP 4 Insert Traction Bar

- Place traction bar inside monostay tube.
- Adjust traction bar (4") from foot/boot sole bottom.
Use monostay extension tube when necessary.
- Attach traction bar tensioning strap male buckle to kinetic extremity hitch female buckle without any webbing twists and remove excess slack.





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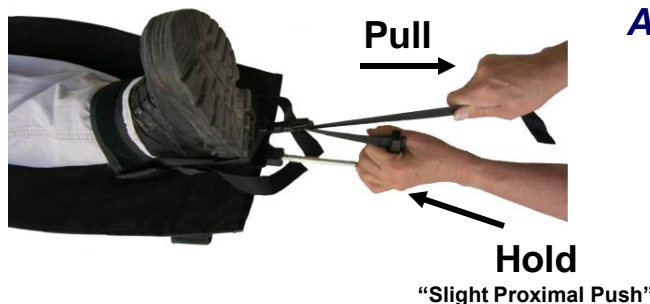
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Lower Extremity Integrated Traction Application

STEP 5 Apply Mechanical Traction

- To ensure smooth application with proximal splint placement (seat), place one hand on ComposiTrac® tip (cantilever end) and hold in place or slightly push in proximal direction, as other hand pulls traction on webbing tail in distal direction, until surface friction and/or manual traction has been overcome with mechanical traction and desired quantified level is reached: (“Femur”)... 6 to 7 pounds or maximum of 15 pounds; (“Tib/Fib”)... 2 to 3 pounds or a maximum of 5 pounds.



Always use patient comfort as the rule.

Field Note: Use only traction bar webbing to apply mechanical traction. Do not apply traction by pulling on ComposiTrac® bar. This could pull proximal splint end away from limb root seat.



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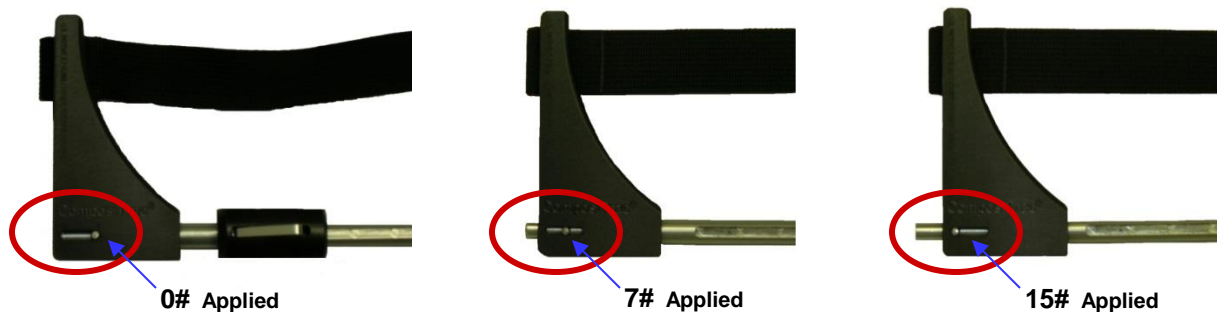
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ComposiTrac® Quantified Traction Pin Gauge

... always use patient comfort as the rule ...



“Femur”... 6 to 7 pounds or maximum of 15 pounds.

“Tibia/Fibula”... 2 to 3 pounds or a maximum of 5 pounds.

“Humerus”... 2 to 3 pounds or a maximum of 5 pounds.



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ComposiTrac® Quick Adjustment

Mechanical Traction – Quick Adjust

- Kinetic extremity hitch webbing ends can be used to quickly apply additional mechanical traction when there is no adjustment left in ComposiTrac® webbing when originally placed too close to foot/boot sole bottom or to obtain smallest splint profile possible.





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Lower Extremity Integrated Traction Application

STEP 6 Secure Splint

- Grasp splint in a manner that prevents any rotational strap application forces from being applied to splint.
- Apply kinetic closure straps from proximal to distal.
- Tension kinetic closure strap elastic prior to hook tip engagement for custom fitting dynamic closure.



Field Note: Fold framesheet edges in to maintain gap for midline extremity reassessment inspection.



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ComposiTrac® Traction Removal

Mechanical Traction - Removal

- Remove kinetic closure straps from distal to proximal leaving proximal (isheal) kinetic closure strap attached until mechanical traction is removed.
- Use kinetic extremity hitch webbing ends to loosen or back off mechanical traction when indicated.
- Hold one of the kinetic extremity hitch webbing tails firmly in-line with injured extremity, then lift on ladder lock tab to slowly release webbing to desired tension.





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Lower Extremity Bilateral Traction Application

“DELTA Pak”

... simply repeat the Integrated Traction Application steps ...





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Lower Extremity Integrated Traction Application *REVIEW*

- STEP 1** Prepare Splint
- STEP 2** Apply Hitch
- STEP 3** Position Splint
- STEP 4** Insert Traction
- STEP 5** Apply Traction
- STEP 6** Secure Splint





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Upper Extremity Integrated Traction Application





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Upper Extremity Integrated Traction Application

STEP 1 Prepare Splint

- Unfold framesheet and lay out flat.
- Assemble (1) monostay section leaving one doubled.
- Insert doubled monostay end into framesheet long-axis pocket with distal single end slightly exposed.





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Upper Extremity Integrated Traction Application

STEP 1 Prepare Splint (Continued)



Flip framesheet over, fold base over to inserted monostay end.



Tuck framesheet corners under for upper extremity application.



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Upper Extremity Integrated Traction Application

STEP 2 Apply Extremity Hitch

- Position extremity hitch under hand in position of function with orbital band proximal to wrist joint.
- Apply orbital band circumferentially around injured extremity.
- Tension extremity hitch traction strap against hand in position of function.
- Center extremity hitch traction strap female buckle on hand in position of function.





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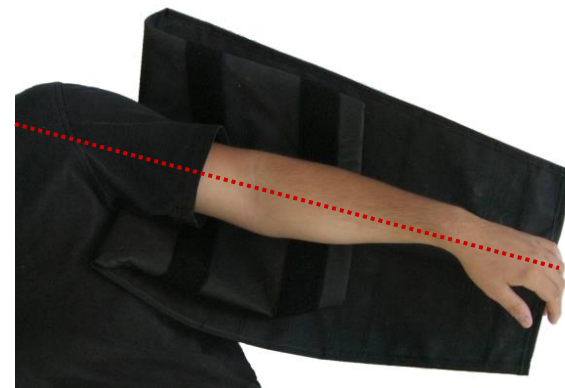
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Upper Extremity Integrated Traction Application

STEP 3 Position Splint

- Position framesheet as proximal as possible under injured extremity for application around limb root (axilla).
- Center framesheet midline and tuck edges as necessary for application.
- Apply proximal (axilla) kinetic closure strap to hold splint in position.





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Upper Extremity Integrated Traction Application

STEP 4 Insert Traction Bar

- Place traction bar inside monostay tube.
- Adjust traction bar (4-6") from hand in position of function.
Use monostay extension tube when necessary.
- Attach traction bar tensioning strap male buckle to kinetic extremity hitch female buckle without any webbing twists and remove excess slack.





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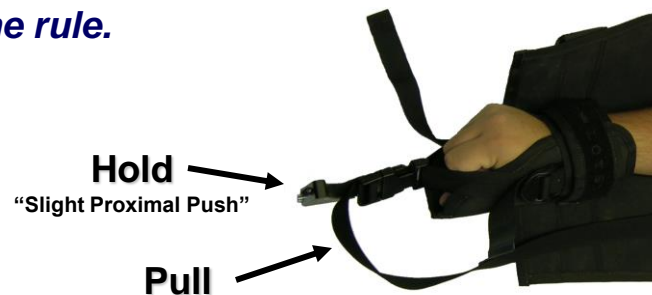
Upper Extremity Integrated Traction Application

STEP 5 Apply Mechanical Traction

- To ensure smooth application with proximal splint placement (seat), place one hand on ComposiTrac® tip (cantilever end) and hold in place or slightly push in proximal direction, as other hand pulls traction on webbing tail in distal direction, until surface friction and/or manual traction has been overcome with mechanical traction and desired quantified level is reached: "Humerus"... 2-3 pounds or maximum 5 pounds.

Always use patient comfort as the rule.

Field Note: Use traction bar webbing only to apply mechanical traction. Do not apply traction by pulling on ComposiTrac® bar. This could pull proximal splint end away from limb root seat.





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Upper Extremity Integrated Traction Application

STEP 6 Secure Splint

- Grasp splint in a manner that prevents any rotational strap application forces from being applied to splint.
- Apply kinetic closure straps from proximal to distal.
- Tension kinetic closure strap elastic prior to hook tip engagement for custom fitting dynamic closure.



Field Note: Fold framesheet edges in to maintain gap for midline extremity reassessment inspection.



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Upper Extremity Integrated Traction Application *REVIEW*

- STEP 1** Prepare Splint
- STEP 2** Apply Hitch
- STEP 3** Position Splint
- STEP 4** Insert Traction
- STEP 5** Apply Traction
- STEP 6** Secure Splint





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Pelvic Stabilization



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Pelvic Stabilization Device™ Application





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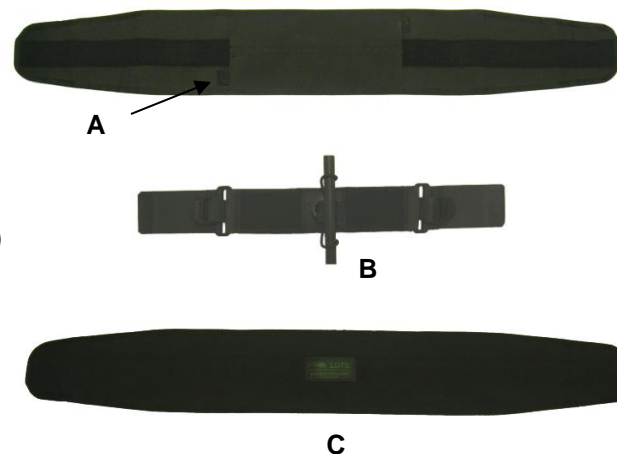
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- Traction Integration
- Pelvic Stabilization
- Return To Service

Pelvic Stabilization Device™ Application

STEP 1 Prepare Device

- Unroll/unfold PSD™ framesheet.
- Lay out flat (logo side down).
- Assure Static Compression Straps are tucked in flat and accessible. (A)
- Remove Bilateral Tensor Strap from framesheet. (B)
- Flip PSD™ framesheet laying out flat (logo side up). (C)





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- Traction Integration
- Pelvic Stabilization
- Return To Service

Pelvic Stabilization Device™ Application

STEP 2 Position Device

- Slide PSD™ framesheet “logo side up” under small of back (lumbar) area centering framesheet. (A)
- Grasp both ends of PSD™ framesheet and work downward (inferior) until centered over hip points (trochanters) with lateral ends equally distributed. (B)
- Finish wrapping PSD™ framesheet ends around pelvic girdle. (C)





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- Terminology & Nomenclature
- Orthopaedic Challenges
- Assessment & Care Review
- Long-Axis Application
- Off-Axis Application
- Traction Integration
- Pelvic Stabilization
- Return To Service

Pelvic Stabilization Device™ Application

STEP 2 Position Device - Field Note:

- Place Pelvic Stabilization Device™ over greater trochanters. NEVER over iliac crests. This provides best mechanical stability of pelvic ring structures.
- A misplaced Pelvic Stabilization Device™ may exacerbate a pelvic fracture if there is an injury through the iliac crest.
- When placed too high it will also obstruct access for laparotomy.





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Pelvic Stabilization Device™ Application

STEP 3 Secure Device

- Tuck framesheet ends under leaving gastric and pubic area clear for exam and invasive procedures. (A)
- Attach Bilateral Tensor Strap to framesheet end, while holding other end of framesheet in place, manually tense strap and attach. (B)
- Manually tensing Bilateral Tensor Strap lifts lateral aspects of pelvis slightly to overcome gravity effects. This provides for effective stabilization of pelvic region in a neutral anatomic position.





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Pelvic Stabilization Device™ Application

STEP 3 Secure Device (continued)

- If more compression is required use windlass. Grasp PSD™ static compression strap pulling straight out until it stops. Make sure strap is flat and not twisted. (A)
- Thread static compression strap through ladderlock fastener on Bilateral Tensor Strap. Remove all slack. (B)
- Tension static compression strap just enough to hold Bilateral Tensor Strap hook tip in place to prevent accidental release. (C)





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Pelvic Stabilization Device™ Application

STEP 3 Secure Device (continued)

- Unhook elastic loop locks from Bilateral Tensor Strap windlass for use.
- Tighten (twist) windlass tensioning to desired compression pressure. When hook/loop makes crackling noise (starting to disengage) STOP.
 - * If strap was tensed during initial application it should only require 2 to 3 half turns. (A)
- Hook elastic loop locks over windlass ends to keep in position. (B)
- With Bilateral Tensor Strap in position under compression and loop locked. Re-tension Static Compression Strap.





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Pelvic Stabilization Device™ Application

REVIEW

STEP 1 Prepare Device



STEP 2 Position Device



STEP 3 Secure Device





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Return To Service



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Return to Service Cleaning & Disinfection

Personal Protective Equipment

Unit approved infection control equipment should be used whenever there is a potential for exposure to body fluids or potentially infectious material during cleaning. Infection control equipment for cleaning and disinfection of splint and components should include splash-resistant eye-wear, face mask, medical gloves and/or utility gloves, and fluid-resistant clothing when available.

To assure effectiveness of the disinfection process, the splint must first be thoroughly rinsed of visible gross contaminants (e.g., soil, blood, tissue) prior to pre-cleaning with a liquid non-bleach detergent or pre-treating agent.





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Return to Service Cleaning & Disinfection

When there is “no visible” or “light spotting” of body fluids or contamination, splint will generally only require simple hose rinsing and detergent brush cleaning of exposed surfaces to remove foreign matter, a thorough rinse, followed by disinfection.

When “gross soiling” of body fluids or contamination occurs, splint will require a six-step pre-cleaning, cleaning and disinfection process:

- Step 1:** Don PPE. Hose off all foreign matter.
- Step 2:** Pre-clean grossly soiled spots with detergent and brush.
- Step 3:** Rinse off all detergent and pre-cleaning solutions.
- Step 4:** Wash splint components with detergent and brush.
- Step 5:** Rinse off all detergent cleaning solutions with hose. Let splint components air dry. Doff PPE.
- Step 6:** Disinfect all splint surfaces and components. Let dry. Field repack splint components in condition of readiness.





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Return to Service Cleaning & Disinfection

Disinfection

Class: Intermediate - Level Disinfection

Destroys: Mycobacterium tuberculosis, vegetative bacteria, most viruses and most fungi, but does not kill bacterial spores.

Method: Application of an E.P.A. registered hospital disinfectant, F.D.A. chemical germicide with label claim for tuberculocidal activity in accordance with manufacturer's instructions.





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Return to Service Operator Case Repacking





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Return to Service Operator Case Repacking

STEP 1 Pack Traction

- Tri-fold monostay collapsible tube and slide inside monostay storage sheath.
- Slide ComposiTrac® bar and monostay extension tube under exterior storage sheath loops. Wrap webbing and tuck.
- Place in bottom of operator case.



Monostay Storage Sheath
Packaged →





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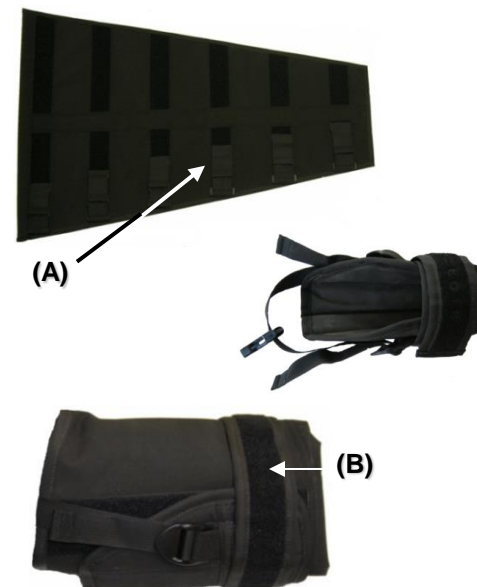
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Return to Service Operator Case Repacking

STEP 2 Pack Framesheet

- Lay framesheet out flat and reposition kinetic closure straps (A) to their engagement ready position.
- Fold framesheet in long-axis half. Then fold over with straps inside at each loop band (4-6"), working from distal end to proximal base (large end).
- Place folded framesheet inside kinetic extremity hitch and tighten orbital strap (B) to hold framesheet, and plantar strap to remove slack.





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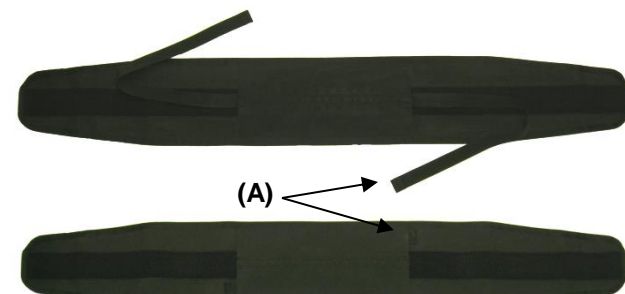
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Return to Service Operator Case Repacking

STEP 3 Pack PSD™

- Make sure static compression straps are tucked under and accessible. (A)
- Bi-fold “Pelvic Stabilization Device” ends to halfway. Fold bi-folded ends in half and secure with bilateral tensor strap (finished fold: 10” to 12”).
- Place flat folded PSD™ device with attached bilateral tensor strap inside operator case side pocket.





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QUESTIONS...



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