CHAPTER 1. THE TRAUMA SPECTRUM OF CARE


State trauma center access maps: http://tramah.cml.upenn.edu/CML.TraumaCenters.Web/


**CHAPTER 2. THE BIOMECHANICS OF TRAUMA**


CHAPTER 3. THE BODY’S RESPONSE TO INJURY

Hypothermia, acidosis, & coagulopathy

Oxygenation, ventilation, & diffusion

Hemodynamic monitoring
Resuscitation endpoints

CHAPTER 4. CARING FOR THE PATIENT WITH THORACIC INJURY

Thoracic injuries & management


**Retained missiles & bullet embolus**


**Chest tubes & autotransfusion**


**Permissive Hypotension**


Resuscitative thoracotomy & VATS

Transfusion & coagulopathy
AABB. Primer of Blood Administration. 2012.


thawed fresh frozen plasma. *J Trauma Acute Care Surg*, 74(1), 84-90; discussion 90-81. doi: 10.1097/TA.0b013e3182788e32


Pro-clot agents


CRASH-2 Clinical Randomisation of an Antifibrinolytic in Significant Haemorrhage
http://www.crash2.lshtm.ac.uk/


**Vital signs & alternatives to standard vital signs**


**Early Patient Mobilization**


CHAPTER 5. CARING FOR THE PATIENT WITH ABDOMINAL INJURY

Abdominal injuries & management
Freiwald S. Late-presenting complications after splenic trauma. The Permanente journal. 2010;14(2):41-44.

Difficult vascular access
Bariatric trauma patients
https://www.ena.org/practice-research/Practice/Documents/Bariatric.pdf

Ultrasound in Trauma
The FAST Exam: Focused Assessment with Sonography in Trauma. 
http://www.sonoguide.com/FAST.html

Damage control surgery

Fluid management

Intra-abdominal hypertension & compartment syndrome
WSACS - the Abdominal Compartment Society. https://www.wsacs.org/

Bladder pressure measurement


Early Nutrition


Sepsis & MODS


Patient death, donation, and family presence


Alcohol and injury


on alcohol and injuries. *Bull World Health Organ*, 84(6), 453-460. doi:10.6886200600600014
Cutting Back. Society of Trauma Nurses Brief Interventions for Alcohol Misuse. Web-based training. [http://traumaalcoholscreen.org](http://traumaalcoholscreen.org)

**CHAPTER 6. CARING FOR THE PATIENT WITH MUSCULOSKELETAL INJURY**

**Crush injury and reperfusion injuries**

**Tourniquet use & external hemorrhage control**
Fractures


Spinal immobilization


**Skin care & pressure ulcers**


**Rhabdomyolysis**


**Ankle-brachial index**


**Orthopedic pin care**


**Pain management**


**Wound care**


**VTE & prophylaxis**


**Delirium & acute alcohol withdrawal**


Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)


**Fat embolism syndrome**


**Posttraumatic stress & Depression**


**CHAPTER 7. CARING FOR THE PATIENT WITH CRANIOCEREBRAL INJURY**

**Craniocerebral trauma-General**


Glasgow Coma Scale scoring http://www.glasgowcomascale.org/

IMPACT International Mission for Prognosis and Analysis of Clinical Trials in TBI http://www.tbi-impact.org/


**Concussion, post-concussion syndrome, & second impact syndrome**


**Geriatric trauma patients**


**Intracranial bleeding**


**Brain injury management**


American Association of Neuroscience Nurses and the Association of Rehabilitation Nurses (2011). *Care of the Patient with Mild Traumatic Brain Injury.*


Brainline.org [http://www.brainline.org](http://www.brainline.org)


End-of-life concerns


Burnout, compassion fatigue, & resilience

CHAPTER 8. CARING FOR THE PATIENT WITH SPINAL CORD INJURY

SCI injuries


**SCI assessment**


**SCI interventions**


Miami J collar inservice/collar competency interactive training course. http://www.ossuracademy.net/miamijcomp/?_cldee=ZXZIbnRzQGxhdXJlbHdvb2Rncm91cC5jb20%


SCI outcomes


GENERAL PEDIATRIC TRAUMA CONSIDERATIONS
ONLINE TRAUMA RESOURCES

PROFESSIONAL ASSOCIATIONS
AABB (Blood bank organization) http://www.aabb.org/Pages/default.aspx
Air and Surface Transport Nurses Association (ASTNA) http://www.astna.org
American Association of Critical Care Nurses (AACN) http://www.aacn.org
American Association of Neuroscience Nurses (AANN) http://www.aann.org
American Association of PeriAnesthesia Nurses (ASPA) http://www.aspan.org
American College of Emergency Physicians (ACEP) http://www.acep.org
American College of Surgeons, Committee on Trauma (ACSOT) http://www.facs.org/trauma
Association of PeriOperative Registered Nurses (AORN) http://www.aorn.org
Emergency Nurses Association (ENA) http://www.ena.org
International Association of Flight Paramedics (IAFP) http://www-flightparamedic.org
National Association of Orthopaedic Nurses (NAON) http://www.orthonurse.org
National Spinal Cord Injury Statistical Center (NSCISC) https://www.nscisc.uab.edu/
Society of Critical Care Medicine (SCCM) http://www.sccm.org
Society of Trauma Nurses (STN) http://www.traumanurses.org
The Eastern Association for the Surgery of Trauma (EAST) http://www.east.org

U.S. GOVERNMENTAL WEB SITES
CDC: National Center for Injury Prevention and Control (NCIPC) http://www.cdc.gov/ncipc
CDC: Childhood Injury Information http://www.cdc.gov/Features/VitalSigns/ChildInjury/
Emergency Medical Services for Children National Resource Center http://www.emscnrc.org/
WISQARS (Web-based Injury Statistics Query & Reporting System) http://www.cdc.gov/ncipc/wisqars

STATE DEPARTMENTS OF TRAUMA WEB SITES
Most states have a website with geographic-specific information
**MISCELLANEOUS TRAUMA & INJURY PREVENTION WEB SITES**

American Trauma Society (ATS) [http://www.amtrauma.org](http://www.amtrauma.org)

American Society for Parenteral and Enteral Nutrition (ASPEN)  
[https://www.nutritioncare.org](https://www.nutritioncare.org)

Brain Injury Alliance Utah [http://biau.org](http://biau.org)

Brain Trauma Foundation [http://www.braintrauma.org](http://www.braintrauma.org)

Childhelp [http://www.childhelp.org](http://www.childhelp.org)

Child Trends [http://www.childtrends.org](http://www.childtrends.org)

Christopher & Dana Reeve Foundation [https://www.christopherreeve.org](https://www.christopherreeve.org)

Coalition for National Trauma Research (CNTR) [http://coalitionntr.org](http://coalitionntr.org)

elearnSCI.org (Free spinal cord injury educational modules) [http://www.elearnsci.org/](http://www.elearnsci.org/)

EMGREG International, Emergency Medicine Cardiac Research and Education Group  

ENA Injury Prevention Institute/EN CARE [http://www.ena.org/ipinstitute](http://www.ena.org/ipinstitute)

Enhanced Recovery After Surgery (ERAS) [http://www.erassociety.org](http://www.erassociety.org)

Every15Minutes.com [http://www.everyfifteenminutes.org](http://www.everyfifteenminutes.org)

IMPACT: International Mission for Prognosis and Analysis of Clinical Trials in TBI.  
[http://www.tbi-impact.org](http://www.tbi-impact.org)

Injury Prevention Web [http://www.injuryprevention.org](http://www.injuryprevention.org)


MADD [http://www.madd.org](http://www.madd.org)

National Trauma Institute [http://www.nationaltraumainstitute.org](http://www.nationaltraumainstitute.org)

National Highway Transportation Safety Administration (NHTSA) [http://www.safercar.gov](http://www.safercar.gov)


[http://www.pewsocialtrends.org/2013/05/07/chapter-2-firearm-deaths/](http://www.pewsocialtrends.org/2013/05/07/chapter-2-firearm-deaths/)
Safe Kids USA [http://www.safekids.org]
SeatCheck.org [http://www.seatcheck.org]
The Brain Injury Association of America [http://www.biausa.org]
The Law Center to Prevent Gun Violence [http://smartgunlaws.org]
The National Foundation for Trauma Care (NFTC) [http://www.traumafoundation.org]
The National Trauma Institute [http://www.nationaltraumainstitute.org]
Trauma.org [http://www.trauma.org]
Trauma Center Association of America (TCAA) [http://www.traumacenters.org]
Trauma Quality Improvement Program (TQIP) [https://www.facs.org/quality-programs/trauma/tqip]


**APPS, BLOGS, NEWSLETTER SUBSCRIPTIONS, PODCASTS, ETC.**

**NEWSLETTER SUBSCRIPTIONS & BLOGS**

FREE.

Life in the Fast Lane. Emergency medicine focused blog and podcasts
[http://lifeinthefastlane.com]

EMCrit. Emergency and critical care medicine-focused blog and podcasts [http://emcrit.org]

Transfusion Evidence Library. A monthly overview of selected evidence-based publications recently added to the Transfusion Evidence Library.
[http://www.transfusionevidencelibrary.com]

Medscape. Subscribe (FREE) to any topics you choose for regular emailed updates. [http://www.medscape.com]
Society of Trauma Nurses Open Forum. [http://www.traumanurse.org](http://www.traumanurse.org) FREE to STN members. Daily conversations with trauma nurses everywhere.

The Trauma Professional’s Blog, Trauma MedEd [http://regionstraumapro.com](http://regionstraumapro.com)

Traumacast. From the Eastern Association for the Surgery of Trauma. Audio interviews addressing research and its application to the injured patient.

[https://www.east.org/resources/traumacast](https://www.east.org/resources/traumacast)

Emergency Medicine News [http://journals.lww.com/em-news](http://journals.lww.com/em-news)

**SMART PHONE APPLICATIONS**

MDcalc. Contains dozens of formulas, scores, and calculations. FREE

Neuroscience Nurse. Contains reference material. From the World Federation of Neuroscience Nurses. FREE

TCRN Review. From the Society of Trauma Nurses. FREE

Figure 1. Endless photos, questions, and comments on all health topics. FREE

CDC Blast Injury FREE

Pedi STAT. A rapid reference for those caring for children in emergency or critical care situations. $2.99


Critical Care ACLS Guide. Informed Publishing. $5.99
EAST PRACTICE MANAGEMENT GUIDELINES

EAST (Eastern Association for the Surgery of Trauma) practice management guidelines are available at: [https://www.east.org/resources/treatment-guidelines](https://www.east.org/resources/treatment-guidelines)

Blunt Abdominal Trauma, Evaluation of 2002
Blunt Aortic Injury 2015
Blunt Cardiac Injury, Screening for 2012
Blunt Cerebrovascular Injury 2010
Cervical Spine Injuries Following Trauma 2009
Blunt Hepatic Injury, Selective Nonoperative Management of 2012
Blunt Splenic Injury, Selective Nonoperative Management of 2012
Blunt Thoracic Trauma (BTT), Pain Management in 2016
Cervical Spine Collar Clearance in the Obtunded Adult Blunt Trauma Patient 2015
Cervical Spine Injuries Following Trauma 2009
Child Passenger Safety: An Evidence-Based Review 2010
Clostridium Difficile-Associated Disease - Timing and Type of Surgical Treatment 2014
Distracted Driver: An Evidenced-Based Review 2015
Emergency Department Thoracotomy 2015
Emergency Tracheal Intubation Immediately Following Traumatic Injury 2012
Genitourinary Trauma, Diagnostic Evaluation of 2003
Genitourinary Trauma, Management of 2004
Geriatric Trauma, Evaluation and Management of 2012
Geriatric Trauma, Triage of 2001
Geriatric Trauma: Parameters for Resuscitation 2003
Helmet Efficacy to Reduce Head Injury and Mortality in Motorcycle Crashes 2010
Hemothorax and Occult Pneumothorax, Management of 2011
Mild Traumatic Brain Injury, Evaluation and Management of 2012
Nutritional Support in Trauma Patients 2004
Nutritional Support: Macronutrient Formulation (Assessment of Energy and Substrate Requirements) 2003
Nutritional Support: Monitoring (Which Tests and How Often?) 2003
Nutritional Support: Route (Total Parenteral versus Total Enteral) 2003
Nutritional Support: Site of Enteral Support (Gastric versus Jejunal) 2003
Nutritional Support: Timing (Early versus Delayed Enteral Feedings) 2003
Nutritional Support: Type (Standard versus Enhanced) 2003
Open Fractures, Prophylactic Antibiotic Use in 2011
Optimal Timing of Femur Fracture Stabilization in Polytrauma Patients 2014
Pancreatic Trauma, Diagnosis and Management of 2009
Pelvic Fracture Hemorrhage—Update and Systematic Review 2011
Penetrating Abdominal Trauma, Prophylactic Antibiotic Use in 2012
Penetrating Abdominal Trauma, Selective Non-Operative Management of 2010
Penetrating Colon Injuries, Management of 1998
Penetrating Combined Arterial and Skeletal Extremity Trauma, Management of 2002
Penetrating Lower Extremity Arterial Trauma, Evaluation and Management of 2012
Penetrating Venous Extremity Trauma, Management of 2002
Penetrating Zone II Neck Trauma 2008
Pregnant Patient, Diagnosis and Management of Injury 2010
Prehospital Fluid Resuscitation in the Injured Patient 2009
Pulmonary Contusion and Flail Chest, Management of 2012
Red Blood Cell Transfusion in Adult Trauma and Critical Care 2010
Resuscitation Endpoints 2004
Safety Helmets, Efficacy of in Reduction of Head Injuries in Recreational Skiers and Snowboarders 2011
Small-Bowel Obstruction, Evaluation and Management of 2012
Stress Ulcer Prophylaxis 2008
Thoracolumbar Spinal Injuries in Blunt Trauma, Screening for 2012
Tracheostomy Timing in Trauma Patients 2009
Triage of the Trauma Patient 2010
Tube Thoracostomy for Traumatic Hemopneumothorax, Presumptive Antibiotic Use in 2012
Venous Thromboembolism: Arteriovenous Foot Pumps in the Prophylaxis of DVT/PE 2002
Venous Thromboembolism: Low Dose Heparin for DVT/PE Prophylaxis 2002
Venous Thromboembolism: Pneumatic Compression Devices in the Prevention of DVT/PE 2002
Venous Thromboembolism: Risk Factors After Injury 2002
Venous Thromboembolism: Role of Low-Molecular-Weight Heparin in VTE Prophylaxis 2002
Venous Thromboembolism: Role of Ultrasound in Diagnostic Imaging for DVT in Trauma 2002
Venous Thromboembolism: Role of Vena Cava Filter in the Prophylaxis and Treatment of PE 2002
Venous Thromboembolism: Venography in the Diagnosis of DVT 2002
ENA CLINICAL PRACTICE GUIDELINES

ENA (Emergency Nurses Association) clinical practice guidelines are available at: http://www.ena.org/practice-research/research/CPG/Pages/Default.aspx

- Difficult Intravenous Access (12/2011)
- Family Presence During Invasive Procedures and Resuscitation (12/2012)
- Gastric Tube Placement Verification (12/2010)
- Needle-Related Procedural Pain in Pediatric Patients (12/2010)
- Non-Invasive Blood Pressure Measurement with Automated Devices (12/2012)
- Non-Invasive Temperature Measurement (12/2011)
- Orthostatic Vital Signs (12/2011)
- Prevention of Blood Culture Contamination (12/2012)
- Prevention of Blood Specimen Hemolysis in Peripherally-Collected Venous Specimens (12/2012)
- Suicide Risk Assessment (12/2012)
- The Use of Capnography During Procedural Sedation/Analgesia (12/2009)
- Wound Preparation (12/2011)
Western Trauma Association algorithms are available at:
http://westerntrauma.org/algorithms/algorithms.html

**Adult Blunt Injury Initial Imaging Algorithm**

**Adult Blunt Splenic Trauma**

  **Update to Adult Blunt Splenic Trauma**

**Blunt Cerebrovascular Injury**

**Esophageal Trauma**

**Evaluation and Management of Peripheral Vascular Injury. Part 1.**

**Evaluation and Management of Peripheral Vascular Injury. Part 2.**

**Management of Complicated Diverticulitis**

**Management of Pancreatic Injuries**

**Management of Pelvic Fracture with Hemodynamic Instability**

  **Update to Management of Pelvic Fracture with Hemodynamic Instability**

**Management of the Mangled Extremity**

**Nonoperative Management of Adult Blunt Hepatic Trauma**

**Operative Management of Adult Blunt Hepatic Trauma**

**Parapneumonic Effusion**

**Penetrating Chest Trauma**

**Penetrating Neck Trauma**

**Resuscitative Thoracotomy**
AACN Practice Alerts are available at: http://www.aacn.org/wd/practice/content/practicealerts.pcms?menu=practice

Assessing Pain in the Critically Ill Adult - [8/2013]
Alarm Management - [5/2013]
Assessment and Management of Delirium Across the Life Span - [8/2016]
Dysrhythmia Monitoring - [4/2008]
Family Presence During Resuscitation and Invasive Procedures - [2/2016]
Family Presence: Visitation in the Adult ICU - [2/2016]
Initial and Ongoing Verification of Feeding Tube Placement in Adults - [2/2016]
Obtaining Accurate Noninvasive Blood Pressure Measurements in Adults - [3/2016]
Oral Care for Patients at Risk for Ventilator-Associated Pneumonia - [4/2010]
Prevention of Aspiration in Adults - [2/2016]
Prevention of Catheter-Associated Urinary Tract Infections in Adults - [8/2016]
Pulmonary Artery/Central Venous Pressure Monitoring in Adults - [8/2016]
ST Segment Monitoring - [4/2008]
Preventing Venous Thromboembolism in Adults - [8/2016]
Ventilator Associated Pneumonia (VAP) - [1/2008]