




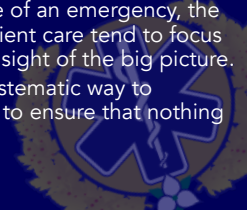

Patient Assessment Series

60 SECOND TRAUMA ASSESSMENT / FIX-IT



Purpose

- Whether you are a bystander when an accident occurs, or working when a trauma occurs a quick, thorough patient assessment is the essential first step in effective patient management.
- Unfortunately, in the melee of an emergency, the people responsible for patient care tend to focus on obvious injury and lose sight of the big picture.
- It is important to have a systematic way to approach trauma patients, to ensure that nothing is missed.

Assessment Techniques

Module 1

Inspection


- Obtain Adequate Exposure of the Patient
- Compare Sides
- Use Good Lighting
- Use appropriate instruments – Penlight, etc.




Palpation




- The "art" of feeling with the fingers or hands during assessment.
- Feeling for size, consistency, texture, location and tenderness of a body part or organ
- Light palpation – masses, rigidity or pain
- Deep palpation – organomegaly (enlargement)
- Compare one side to the other
- Always palpate from proximal to distal of an obvious injury


- Texture
- Temperature
- Moisture
- Organ Size/Location
- Swellig
- Vibration
- Pulsation
- Rigidity or spasticity
- Crepitation
- Presence of Lumps/Masses
- Presence of tenderness or pain








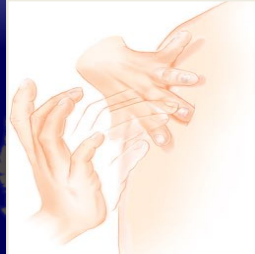



Percussion

- Not commonly used in EMS but can be valuable
- “art” of tapping body parts to produce sounds.
- Used to identify
 - Size, consistency and borders of body organs
 - Presence or absence of fluid in body areas.







- Resonant 
 - Low pitched, hollow sounds
- Hyperresonant 
 - Louder and lower pitch than resonant
- Tympany 
 - High, hollow, drum like sounds
- Dull 
 - Dense areas
- Flat 
 - Solid areas like bones



Auscultation

- The “art” of listening to the internal sounds of the body
- Typically utilizing a stethoscope



60 Second Trauma Assessment

Module 2

Scene Size Up

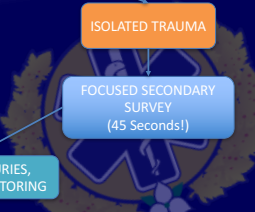
- Scene Safety!
- BSI
- Determine MOI





Complete or Focused Assessment

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    graph TD
      A[SCENE SIZE UP] --> B[PRIMARY SURVEY (15 Seconds!)]
      B --> C[MULTI SYSTEM TRAUMA]
      B --> D[ISOLATED TRAUMA]
      C --> E[COMPLETE SECONDARY SURVEY (45 Seconds!)]
      D --> F[FOCUSED SECONDARY SURVEY (45 Seconds!)]
      E --> G[MANAGE INJURIES, ONGOING MONITORING]
      F --> G
    
```






Scenario Complete or Focused?

- You are called to the scene of a female patient who has suffered a gunshot injury to the right thigh. There is a significant amount of blood visible at the scene.
- You are called to the scene of a football player who has been struck in the lower leg by another player and is complaining of isolated pain to the left lower leg




Step-by-Step Approach


- Primary Survey**
 - First 15 seconds
 - “Does the patient have any problem that will endanger their life in the next few minutes”
 - A,B,C,D,E
- Secondary Survey**
 - Next 45 seconds
 - Starts at the head and works down to the feet, including the entire body surface.
 - Can be focused depending on the presentation




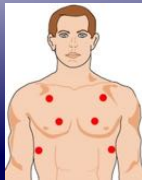
Primary Survey




- Maintain / Secure C-Spine**
 - Inline Manual Head Support
- Airway**
 - Assess for patency/obstruction. Open airway with jaw thrust if necessary. If the patient can talk, it is probably clear.
 - Have suction and airway supplies ready - insert if needed
 - Be prepared to relieve obstruction

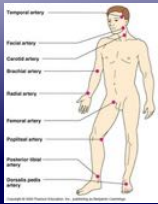







- Breathing**
 - Yes or no?
 - If not, begin ventilating (Bag Mask Ventilation) with 100% oxygen. This can oxygenate the patient and buy time during intubation attempts.
 - Assess breath sounds if possible. Are they bilateral?
 - Assessing for presence and sound if possible, but priority is presence!
 - If not consider pneumothorax.
 - Stabilize flail chest.
 - Apply oxygen PRN






- Circulation**
 - Are there pulses?
 - Palpate Bilaterally
 - Radial, Femoral, Carotid.
 - Is capillary refill less than 2 seconds?
 - Is there any obvious bleeding needing immediate control?
 - If so take a few seconds and get this under control!





- Deformity**
 - Are there any obvious injuries?








Exposure

- "Trauma Naked" approach
 - "A happy trauma patient is a naked trauma patient"
- Complete trauma assessment
 - Rapidly remove all patients clothing and cover for warmth and privacy immediately.
- Focused trauma assessment
 - Rapidly expose the areas of injury and leave other areas covered.
- Rapid removal
 - "CUT IT OFF"

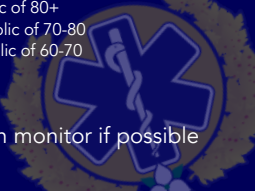

STRIP 'EM
&
FLIP 'EM






Vital Signs



- **If you can have your partner start these during your secondary!
- Pulses
- B/P
 - Did you know:
 - Palpable Radial Pulse – systolic of 80+
 - Palpable Brachial Pulse – systolic of 70-80
 - Palpable Carotid Pulse – systolic of 60-70
- Respirations
- SpO₂
- 3-lead ECG – get patient on monitor if possible



Secondary Survey

- General Principles



<ul style="list-style-type: none"> Deformity Contusions Abrasions Punctures/Penetration 	<ul style="list-style-type: none"> Burns Tenderness Lacerations Swelling
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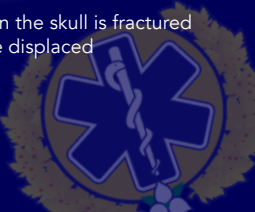
- General Principles
- **T**enderness
- **I**nstability
- **C**repitation





- General Principles
- **P**ulse
- **M**otor
- **S**ensory

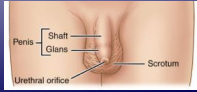
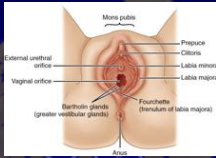

- **H**ead
 - Palpate the head and feel for any crepitation or step-off
 - "step off"
 - This happens when the skull is fractured and the pieces are displaced



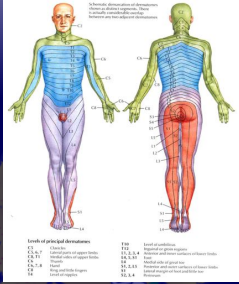


• Genitals

- Males
 - Trauma?
 - Blood from the urethra?
 - Priapism – suspect spinal injury
 - Testicular Torsion?
 - Groin Pain – hip/femur
- Females
 - Trauma
 - Vaginal Bleeding
 - Pregnant?
 - Groin pain – hip/femur

- **Upper Extremities**
 - Pulse, movement, sensation intact? Are pulses equal?
 - One side then the other!
- **Lower Extremities**
 - Pulse, movement sensation intact?
 - One side then the other!





• Back

- Don't ever forget- all patients must be rolled, using spinal precautions if necessary.
- Any injury, tenderness, or deformity?






SAMPLE History

- If Time Permits don't forget a Sample History!
 - **S**igns and Symptoms
 - **A**llergies
 - Food, Medications, Environmental
 - **M**edications
 - Rx, non Rx, supplements, herbals, illegals.
 - **P**ast Pertinent Medical History
 - **L**ast Meal
 - Time, what they had, fluid intake
 - **E**vents Leading to Incident




FIX-IT APPROACH

Module 3



- In order to ensure an un-interrupted and organized patient assessment, the patient assessor must rely on their partners treatment steps while patient assessment is conducted.
- Each patient assessment step requires the thought of resolving the issues of that step as the next step is reached
- **Remember**
 - You do the assessment
 - Your partner "Fixes it"



SUPERIOR EMS

FIX-IT General Impression


- **LOC: Altered mental status**
 - Medical alert tags, medication patches
 - “FIX IT” – D50W, Narcan, etc.
- **Airway/Breathing**
 - Tell your partner to “FIX IT” without stopping your assessment
 - Oxygen, Airway Insertion, BVM, etc.
- **Circulation**
 - “FIX IT” - Direct Pressure, Get IV Equipment Ready, etc.

SUPERIOR EMS

FIX IT Neck



- DCAP BTLS
- Tracheal Deviation
 - YES / NO
- JVD
 - YES/NO
- If Yes – Suspect Chest Trauma
- “FIX IT”
 - Apply C-Collar



SUPERIOR EMS

FIX-IT CHEST



- DCAP BTLS / TIC
- Breath Sounds
- Heart Sounds
- “FIX-IT”
 - Stab Wound – Chest Seal
 - Flail Chest - Support
 - Sucking Chest Wound – Chest Seal

SUPERIOR EMS

FIX-IT ABDOMEN



- DCAP BTLS
 - Is it tender?
 - Is it distended?
- “FIX-IT”
 - Are the IV's ready?
 - Start them
 - Treat for Shock

SUPERIOR EMS

FIX-IT PELVIS



- Unstable?
- “FIX IT”
 - Stabilize the pelvis
- Once Assessment Complete
 - Scoop Stretcher

SUPERIOR EMS

FIX-IT LOWER EXTREMITIES

- DCAP BTLS / PMS
- “FIX-IT”
 - Femur Fracture
 - Traction Splint
 - Tib-Fib Fracture
 - Immobilize



FIX-IT UPPER EXTREMETIES

- DCAP BTLS / PMS
- "FIX-IT"
 - Immobilize Fractures as appropriate



Treatment of Serious vs. Minor Injuries

- Treat the life-threats immediately
- Treat the minor injuries as time permits
- Most important is to identify all injuries quickly



Use your Partners!

- Assign duties to other team members
 - IV
 - Monitor
 - Pulse Ox
 - Bandaging
 - Splinting, etc.



REMEMBER!!!

"Your Treatment of Your Patient is Only as Good as Your Assessment"



Rapid Trauma Assessment Evaluation Tool

Takes body substance isolation precautions	1	
SCENE SIZE UP		
Determines the scene/situation is safe	1	
Determines the MOI	1	
Considers c-spine stabilization	1	
PRIMARY SURVEY		
Airway - Opens and assesses airway (1 point) - has suction / airway adjuncts ready (1 point)	2	
Breathing - Assess breathing (1 point) - ensures adequate ventilation (1 point) - Assesses breath sounds (1 point) - applies oxygen PRN (1 point)	4	
Circulation - Palpates bilateral – radial, femoral, carotid (3 points) - Cap refill (1 point) - controls any severe bleeds (1point)	5	
Deformity - Rapid deformity check (1 point)	1	
Exposure - Determines if situation is multi trauma or focused trauma assessment (1 point) - Rapidly exposes either whole body, or isolated area of trauma (1 point) - Assesses Patient while exposed (1 Point) - Patient privacy (4 points)	7	
Instructs Partner to obtain baseline vitals	5	
SECONDARY ASSESSMENT		
Head - Palpates head and feels for any crepitation or “step-off”	1	
Eyes - Pupils reaction to light (1 point) - Looks for bruising around the eyes (1 point)	2	
Ears - Assesses for drainage (1 point) - Assesses for battle sign (1 point)	2	
Nose - Assesses for trauma, fluid, patency (1 point)	1	
Throat / Neck - Assesses for oral trauma (1 point) - Assesses for neck deformity (1 point) - Assesses for JVD (1 point) - Trachea midline? (1 point) - Palpate carotids (1 point)	5	
Chest / Lungs / Cardiac - Chest tenderness (1 point) - Paradoxal movement (1 point) - Breath sounds (1 point) - Chest sounds (cardiac) (1 point)	4	
Abdomen - Inspects abdomen (1 point) - Auscultates abdomen (1 point) - Palpates abdomen (1 point) - assesses pelvic stability (1 point)	4	
Genitals - Male: inspects for urethral drainage, testicular torsion, priapism and groin pain - Female: inspects for vaginal bleed, groin pain, trauma	3	
Upper Extremities - Pulse, movement and sensation, palpation (1 pt each limb)	2	
Lower Extremities - Pulse, movement and sensation, palpation (1 pt. each limb)	2	
Back - Log roll, and assess for injury, tenderness, deformity	2	
Delivers Appropriate Treatment or Interventions (10 = Proficient, 5 = Satisfactory)	10	
Patient privacy maintained throughout assessment	4	
Total Score	70	