Chapter 8 Patient Assessment Mathy items and derived items © 2010 by Moday, Inc., on affiliate of Essevier Inc.

As an EFR, you must be able to: Rapidly assess the scene Size up potential hazards and determine the need for additional resources Rapidly assess patients for life-threatening (critical) conditions and begin treatment

Introduction

- Assessment is learned as a series of separate skills, but in reality you will be doing many of these things at the same time
 - In the assessment process you rapidly take in information and sort it to make decisions

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Introduction

- Assessment is the most important skill
 - > Includes the following stages:
 - Scene size up
 - Primary assessment
 - Physical examination
 - Patient history
 - Ongoing assessment
 - Hand-off report

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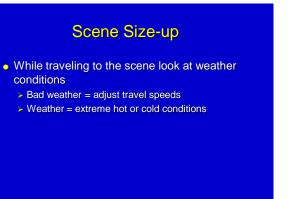
Scene Size-up

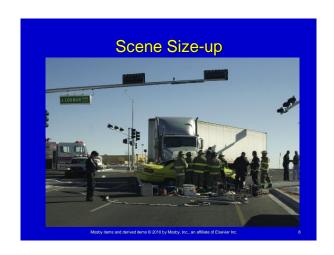
- Quick determination of the entire scene before you actually touch the patient; this includes;
 - Safety of the scene
 - Personal protection
 - Assessment of mechanism of injury or nature of illness

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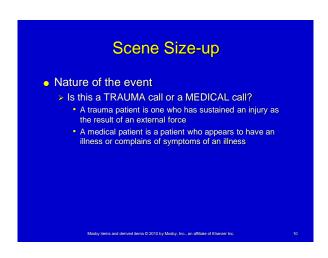
Scene Size-up

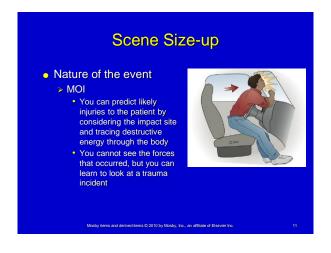
- Begins the moment you receive initial request for aid
 - Information provided by dispatch should give you an idea of:
 - What to expect when you arrive
 - What resources you may need to obtain
 - Security of the scene

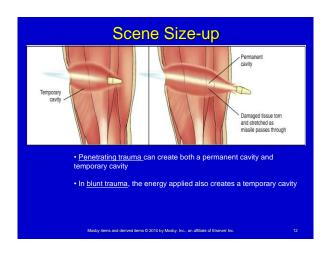




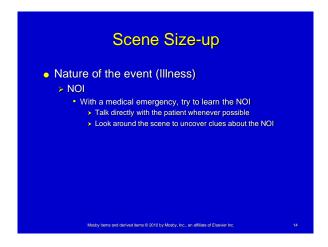




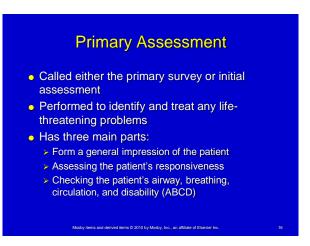


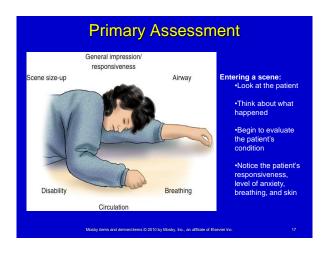






Scene Size-up Number of patients involved Additional resources * Police, Fire, Hazmat, Extrication, Utility Find everyone involved in the incident Prepare to triage in MCI situations





Primary Assessment • General Impression • Is formed before you have touched/started to assess the patient • Helps you decide how to act and gauge the seriousness of the scene • To form a general impression of the emergency you need to quickly evaluate the scene and think about what is happening, what you have been told, and what you observe

Primary Assessment

- Level of consciousness
- A Alert before you attempt to talk to them
- V Response to verbal stimuli from you
- P Respond to a painful stimuli (pinch, sternum rub)
- U Unresponsive to all commands

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Primary Assessment

- Airway
 - A patient who is responsive and can speak has an open (or patent) airway
 - · Continue to reassess the airway FREQUENTLY!
 - > Noisy breathing indicates a partially obstructed airway
 - A patient who is trying to speak or cough but cannot make any noise has a completely obstructed airway

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Primary Assessment

- Airway
 - <u>Unresponsive:</u> assess the patient's airway and look, listen, and feel for breathing
 - Open the airway if breathing is noisy or if you do not hear breathing at all
 - ➤ Medical: Head tilt, chin lift
 - > Trauma: Jaw Thrust

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Primary Assessment





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Primary Assessment

- Breathing and ventilation
 - > Look at and listen to the patient as they breathe
 - If patient is responsive and alert, ask yourself the following questions:
 - Is the patient able to speak in full sentences without having to stop to take a breath?
 - How hard is patient working to breathe?
 - Is breathing adequate?
 - Is patient sitting upright?

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Primary Assessment

- Breathing and ventilation
 - > Also look for:
 - What is patient's color?
 - Is patient showing signs of hypoxia such as cyanosis?
 - How fast and deep is patient breathing?
 - Is patient using accessory muscles in the chest (between the ribs) or neck or abdominal muscles to breath?
 - Can patient speak and carry on a normal conversation?

Primary Assessment

- Breathing and ventilation
 - > To assess the patient look at and listen to them as they breath
 - If patient is responsive and alert, ask yourself the following:
 - > Is the patient sitting upright?
 - > What is the patient's color?
 - > Is the patient showing signs of hypoxia, cyanosis?
 - > How fast and how deep is the patient breathing?

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Primary Assessment

- Breathing and ventilation
 - If patient is unresponsive, look, listen, and feel for breathing
 - If patient is breathing adequately, continue to reassess
 - If patient is not breathing adequately, open airway and ventilate using either mouth-to-mask, mouth-to-barrier, or bag-mask device

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Primary Assessment

What does this position tell you?



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Primary Assessment

- Breathing and ventilation
 - Supplemental O₂ should be given to any patient with signs of inadequate breathing and/or ventilation
 - Assist breathing with bag-mask and supplemental O₂ if patient is breathing too fast (>24 breaths per minute) or too slow (<8 breaths per minute) or has signs of cyanosis

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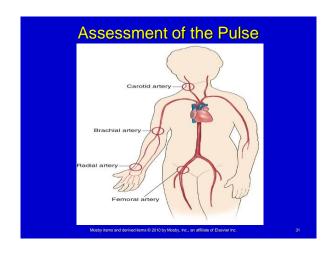
Primary Assessment

- Breathing and ventilation
 - If patient is showing signs/symptoms of inadequate ventilation and oxygenation, start ventilation assistance
 - Regardless of his/her level of consciousness
 - > If patient has no respiration or very slow respirations, start rescue breathing

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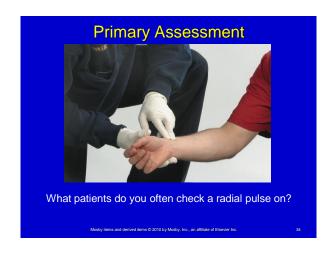
Primary Assessment

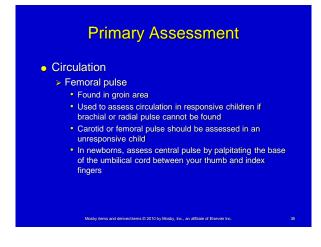
- Circulation
 - > To determine effectiveness of a patient's circulation
 - Look for major bleeding
 - Assess the pulse
 - Quickly assess the skin

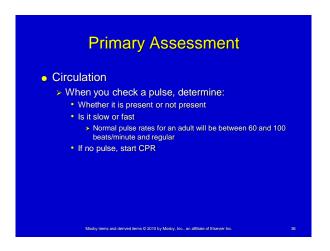












Primary Assessment

- Circulation
 - Major bleeding
 - As part of the primary assessment, assess patient for major bleeding (hemorrhage)
 - · Look at both the patient and scene for:
 - > Any visible active bleeding
 - > Pool of blood anywhere at the scene
 - > Blood collected in the ground
 - Feel around the back of the patient to see if any blood has collected underneath the patient

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Primary Assessment

- Circulation
 - Major bleeding
 - Active hemorrhage must be controlled immediately
 - > Be aware of how much blood patient has potentially lost
 - ➤ If patient has lost significant blood, possible shock occurs
 - Do not let bleeding distract you from the priorities of assessing and maintaining airway, breathing, and circulation

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Primary Assessment

- Circulation
 - > Skin Assessment
 - Skin color and temperature can also be indications of the adequacy of circulation
 - > A <u>bluish (cyanotic)</u> discoloration indicates a lack of O₂ at the cellular level
 - > <u>Pale skin</u> may indicate a low body temperature, blood loss, or shock

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Primary Assessment

- Circulation
 - ▶ Abnormal Skin
 - Flushed or red, patient's temperature may be elevated
 - <u>Cool skin</u> may indicate a low body temperature/shock
 - Wet/sweaty skin may indicate physical exertion, severe pain, or shock
 - If color is <u>pale</u>, <u>mottled</u>, <u>and cool</u> to the touch, patient may be in shock

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Primary Assessment

- Circulation
 - Check capillary refilling time for circulation assessment of infants and children <6 years</p>
 - Press on area of the skin or thumb and nail & release
 - Once released, color should return to the area within 2 seconds
 - If it takes longer than 2 seconds for color to return to the depressed area, it may indicate possible decreased circulation
 - > Delayed capillary refill by itself is not a reliable indicator

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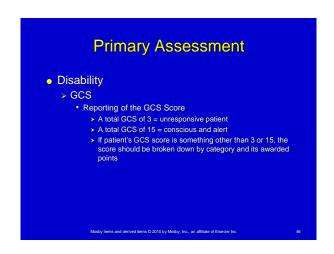
Primary Assessment

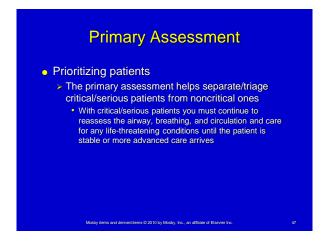
- Disability
 - An additional step in the initial assessment is sometimes designated as D for disability
 - Provides more of an assessment of a patient's brain (mental) function (neurological assessment)
 - Assess the patient's mental function along with the ability to move and control all extremities

Primary Assessment • Disability • Clasgow Coma Scale (GCS) • One of the most complete ways to assess a patient's mental status (disability) • CS score is used by other prehospital providers to assess the patient's mental function • The earlier an assessment can be done on a patient, the earlier a baseline value can be set

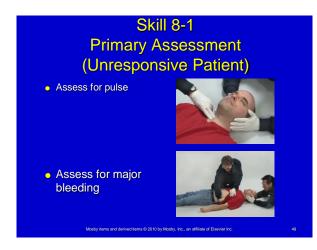
GI	asgow Coma Scale	
	Spontaneousopen with blinking at baseline	4
Best eye response (E)	Opens to verbal command, speech, or shout	3
	Opens to pain not applied to face	2
	None	1
Bestverbal response (V)	Oriented	5
	Confused conversation, but able to answer questions	4
	Inappropriate responses, words discernible	3
	In comprehensible speech	2
	None	1:
Best motor response (M)	Obeys commands for movement	6
	Purposeful movement to painful stimulus	5
	With draws from pain	4
	Abnormal (spastic) flexion, decorticate posture	3
	Extensor (rigid) response, decerebrate posture	2
	None	1

pisability GCS Reporting of the GCS Score After assessing each component of the GCS (E, V, M) the points received for each component are added to the points received for each component are added to the points received for each component are added to the points received for be points. Ranges from 3 to 15 points

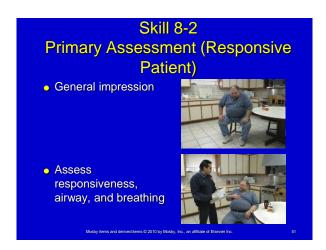


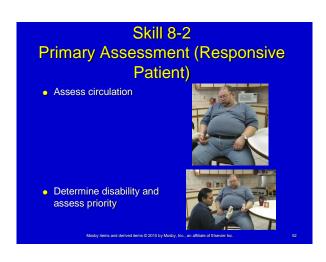












Primary Assessment Communication If patient is unresponsive during initial assessment, call for additional help immediately. If patient is responsive, wait until initial assessment is complete before calling for additional help. Once you have prioritized the patient, update the responding EMS unit with a brief radio/cellular telephone report if possible

Secondary Assessment Performed after ensuring all life threatening conditions have been identified and correctly managed during the primary assessment Obtain complete set of vital signs Perform detailed physical examination based on patient's present condition Gather past medical history Perform a systematic and organized physical examination of the patient

Secondary Assessment

- Vital signs
 - Consists of patient's pulse rate, respiratory rate, and, if allowed, blood pressure
 - Provides starting point for judging effectiveness of prehospital care
 - Taken every 15 minutes for noncritical patients and at least every 5 minutes for critical patients or whenever their condition changes

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Secondary Assessment

- Physical examination
 - Inspect (look) and palpate (feel) for signs of injury
 - > Use mnemonic DOTS for physical examination
 - Deformities
 - Open wounds
 - Tenderness
 - Swelling

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Secondary Assessment



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Secondary Assessment



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Secondary Assessment

- Physical examination
 - Always compare one side of patient's body to the other side to help identify abnormalities
 - > Done in a systematic and orderly manner
 - Practice assessment skills often so you can quickly identify normal/abnormal findings
 - If a patient has a specific injury or complaint, start there and then expand the examination as needed
 - Purpose of the physical examination is to identify other injuries not found in your initial assessment

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Skill 8-3 Secondary Assessment-Physical Head to Toe Examination

 Inspect and palpate the scalp



 Inspect and palpate the face





and pupil response do not palpate eye injuries



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Skill 8-3 Secondary Assessment-Physical Examination

 Check the mouth for any bleeding or injuries



 Remove clothing from patient's upper body



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Skill 8-3 Secondary Assessment-Physical Examination

 Inspect and palpate the front and back of the neck



 Inspect and palpate the chest



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Skill 8-3 Secondary Assessment-Physical Examination

 Compare both side of the chest for any abnormality



Auscultate the chest



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Skill 8-3 Secondary Assessment-Physical Examination

 Inspect and palpate the abdomen



 Palpate the back and inspect for signs of bleeding



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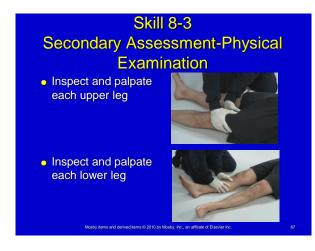
Skill 8-3 Secondary Assessment-Physical Examination

 Remove clothing from patient's lower body



Palpate the pelvis

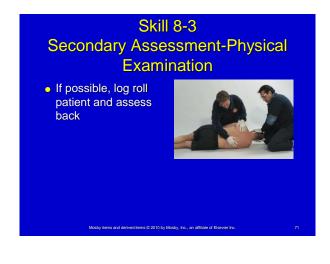


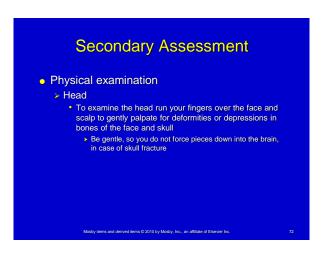












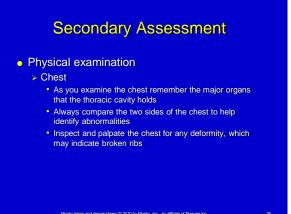
Secondary Assessment Physical examination

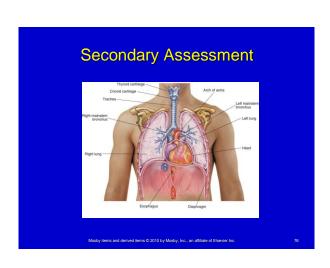
- Neck • If the patient is injured, keep head and neck stabilized while you use gently pressure to palpate for deformities
 - · Check position of the trachea (midline) and any open wounds to the neck

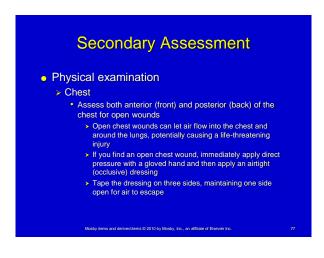
 - Open wounds in the neck can be dangerous; the neck holds the trachea and has very large blood vessel
 If you discover an open wound, cover it completely with an airtight occlusive dressing

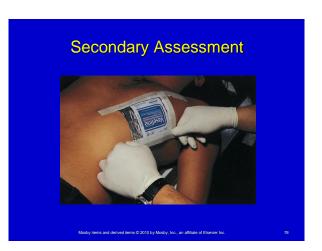
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Secondary Assessment Physical examination Neck • If patient complains of tenderness when you palpate, there may be damage to the spine/soft tissue that supports the neck Swelling can obstruct the airway Palpate not only front of the neck but also vertebrae and skin on back of the neck Mosby items and derived items © 2010 by Mosby, Inc., an affiliate of Elsevier Inc.







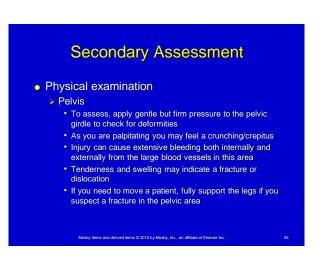


Secondary Assessment Physical examination Abdomen Gently palpate for any injuries/tenderness You may feel/see deformities If you discover any open injuries to the skin and fatty tissue, cover them with an occlusive dressing such as plastic food wrap to keep air from entering the abdomen If contents are spilling out of the wound, cover area with a sterile, moist dressing

Secondary Assessment • Physical examination • Abdomen • It is important to note location of any tenderness because it may provide a clue about underlying organ damage. • Patient may tighten the muscles of an injured area (called "guarding") when you palpate the abdomen. • Report swelling/distention in the abdomen by quadrant locations

Secondary Assessment • Physical examination • Back • Back • I here are enough providers available when you are assessing a trauma patient, do a log roll to inspect the patients back • Inspect and palpate the back for any obvious deformities, open wounds, tenderness/swelling

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Secondary Assessment Physical examination Extremities Inspect and palpate each extremity for deformities of the bones, soft tissue, and joints Look for open wounds and control any bleeding Injuries can be dramatic Tenderness/swelling may result from a fracture, dislocation, or sprain

Secondary Assessment • Physical examination • Extremities • To assess for numbness, ask the patient to identify areas you touch • Palpate radial pulses in arms and pedal pulses in legs to evaluate circulation • Compare each extremity to the opposite extremity to help identify possible injuries/abnormalities

Secondary Assessment

- History
 - Important to collect patient's complaint, past medical history, and event history as you assess the patient
 - Primary complaint is a very brief description of the reason for summoning assistance
 - In the best circumstances, the patient will be able to answer all questions about his/her medical history
 - You can gather most relevant medical history by using the mnemonic SAMPLE

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Secondary Assessment

- SAMPLE
 - S-signs and symptoms
 - What you "see" and what you "hear"
 - A-allergies
 - Important to note anything pertinent (latex, medical tags)
 - M-medications
 - What prescribed medications, over the counter, herbs, vitamins
 - > P-pertinent past history
 - Cardiac, respiratory, surgeries, etc.
 - ▶ L-last oral intake
 - · What have you ate and drank recently
 - ▶ E-events prior
 - · What occurred before the call

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Reassessment

- While caring for your patient perform a reassessment until additional EMS personnel arrive and take over care
- Repeat primary assessment (ABCD) and vital signs at continuous intervals

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Reassessment

- Reassesses airway, breathing, circulation, and possible disability to gauge effectiveness of your treatment and to correct any identified problems
 - Reassess airway to ensure it is open and maintained
 - Monitor patient's breathing and pulse for rate and quality
 - > Recheck skin color, temperature, and condition
 - Calm patient as you wait for EMS to arrive
- Anytime a patient's condition changes, reassess

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Hand-off Report

- When EMS responders arrive, be ready to give a hand-off report
- This report describes your assessments and interventions
- With multiple patients, start with most critical patients so they get immediate care and transport

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Hand-off Report

- The report should include the following:
 - > Age and gender
 - > Primary complaint
 - > Responsiveness
 - Airway and breathing status
 - Circulation status
 - Physical findings
 - SAMPLE history
 - > Interventions provided
 - > Patient's current condition

Vital Signs

- As part of the healthcare team it is beneficial for you to know how to take and report vital signs and how to accurately triage patients
- You may be required to evaluate/help evaluate the patient's vital signs if time permits

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Vital Signs

- > Skin
- BreathingPulse
- Puls

• Include:

- Pupils
- ▶ Blood pressure

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Vital Signs

- As you assess a patient's vital signs the initial numbers you obtain will be important, but even more important will be trends you identify as you reassess vital signs
 - Vital signs are usually taken at a minimum of every 5 minutes in critical patients and every 15 minutes in noncritical patients

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Vital Signs

- Breathing
 - When evaluating, assess rate, quality, and in some situations breath sounds
 - To assess breathing observe rise and fall of patient's chest
 - You may find it easier to look at/feel the upper abdomen to count the respiratory rate
 - To measure rate you should count the number of breaths in 30 seconds and multiply this number by 2

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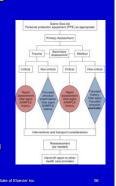
Vital Signs

- Breathing
 - > To assess quality of breathing, evaluate how much energy the patient is using to breathe
 - Whether the patient is using accessory muscles to breathe
 - How deep respirations are
 - · Whether breathing is noisy

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Vital Signs

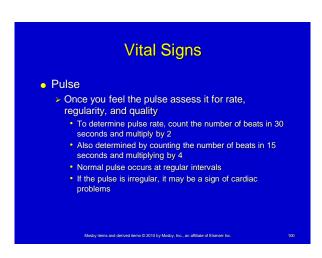
- Breathing
 - To assess breath sounds you may also auscultate or listen to the chest with a stethoscope
 - Place the stethoscope in your ears with earpieces facing forward and use diaphragm of the stethoscope to listen from side to side on the chest
 - You are comparing sounds and quality of respiration in each lung field in order to identify abnormalities







Pulse Pulse Indicator of patient's circulatory function Assess radial pulse on both adult and child patients A radial pulse should be measured with 2/3 fingers of gour hand Do not use your thumb to feel for a pulse because a thumb has its own pulse, which may be measured instead If radial a pulse cannot be found, assess a carotid pulse on adults and brachial pulse on children Brachial pulse should always be assessed on infants



Vital Signs Pulse When you assess the quality of the pulse, you are feeling to see if the pulse is weak or strong If pulse is rapid and weak, patient may be in shock If pulse is rapid and bounding, it may indicate that the patient is anxious or has high blood pressure

Skin signs Assessing patient's skin can tell you a lot about a patient Not only will you see injuries, assessment will give you clues about how well the heart and lungs are working When evaluating the skin, assess for color, temperature, condition, and in children, capillary refill time



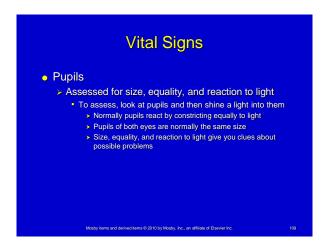






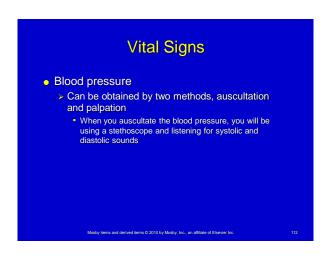


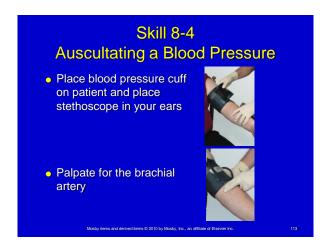






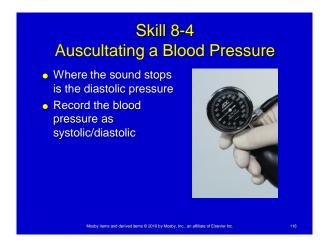
Vital Signs Blood pressure Reflects status of heart and blood vessels To assess you need a stethoscope and properly fitting blood pressure cuff/sphygmomanometer Represented by two numbers, systolic and diastolic blood pressures Values will vary depending on age of the patient

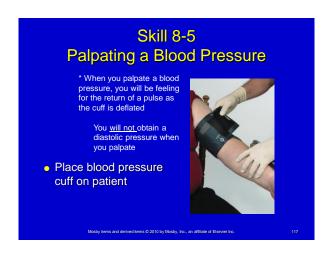




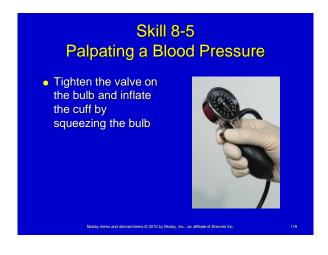














• Blood pressure • Documented with systolic pressure over diastolic pressure (e.g., 120/90). When palpated, you will record as 120/P • There are many factors that can affect accuracy of a blood pressure reading • When taking a blood pressure reading it is very important to use the proper cuff size

Vital Signs Blood pressure Take blood pressure readings in all patients who are ≥ 3 years Vital signs tell you how your patient is doing; they are most useful when assessed repeatedly for trends

Vital Signs • Triage • Process of sorting patients • Used when you have more patients than personnel or resources to care for them • Being aware of how to perform triage and the importance of triage is of vital importance to EFRs because they may be the first on the scene at a multicasualty incident

