

PRE-HOSPITAL PERIOD



Pre-hospital Period

CPR

Spine Immobilization

Limb Immobilization

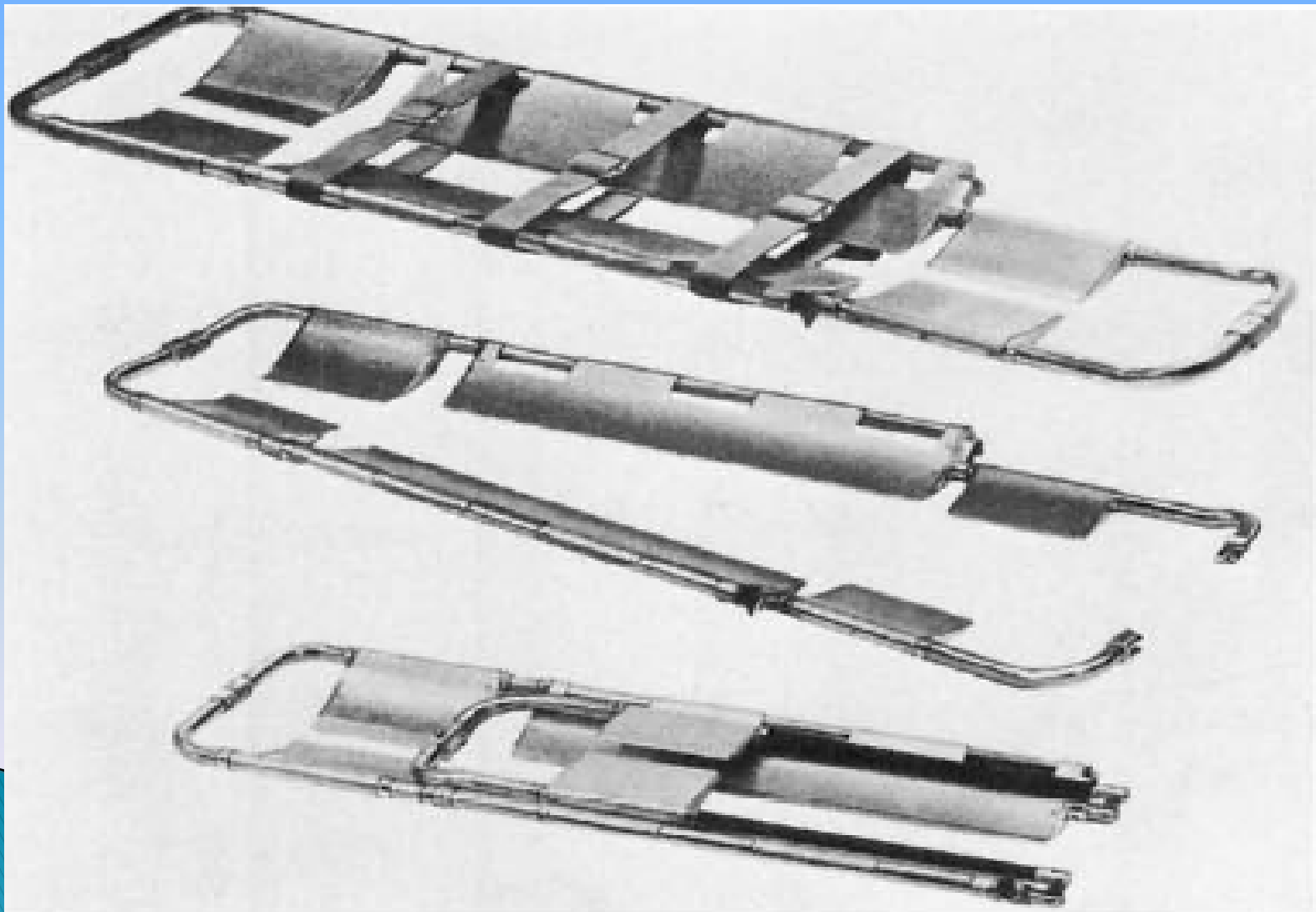
Rapid Transport



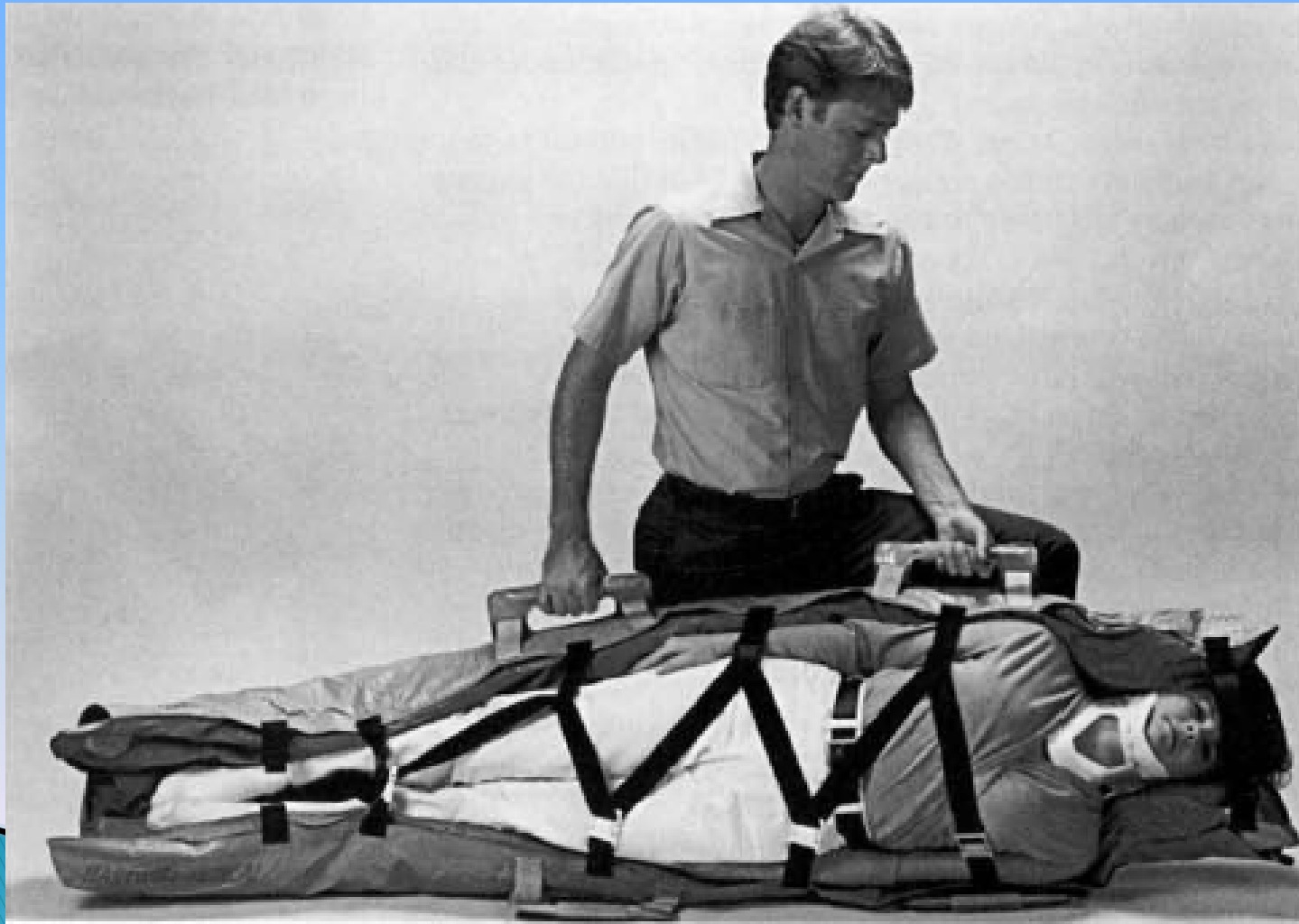
BACKBOARD



SCOOP



VACUUM MATTRESS SPLINT



PHILADELPHIA COLLAR

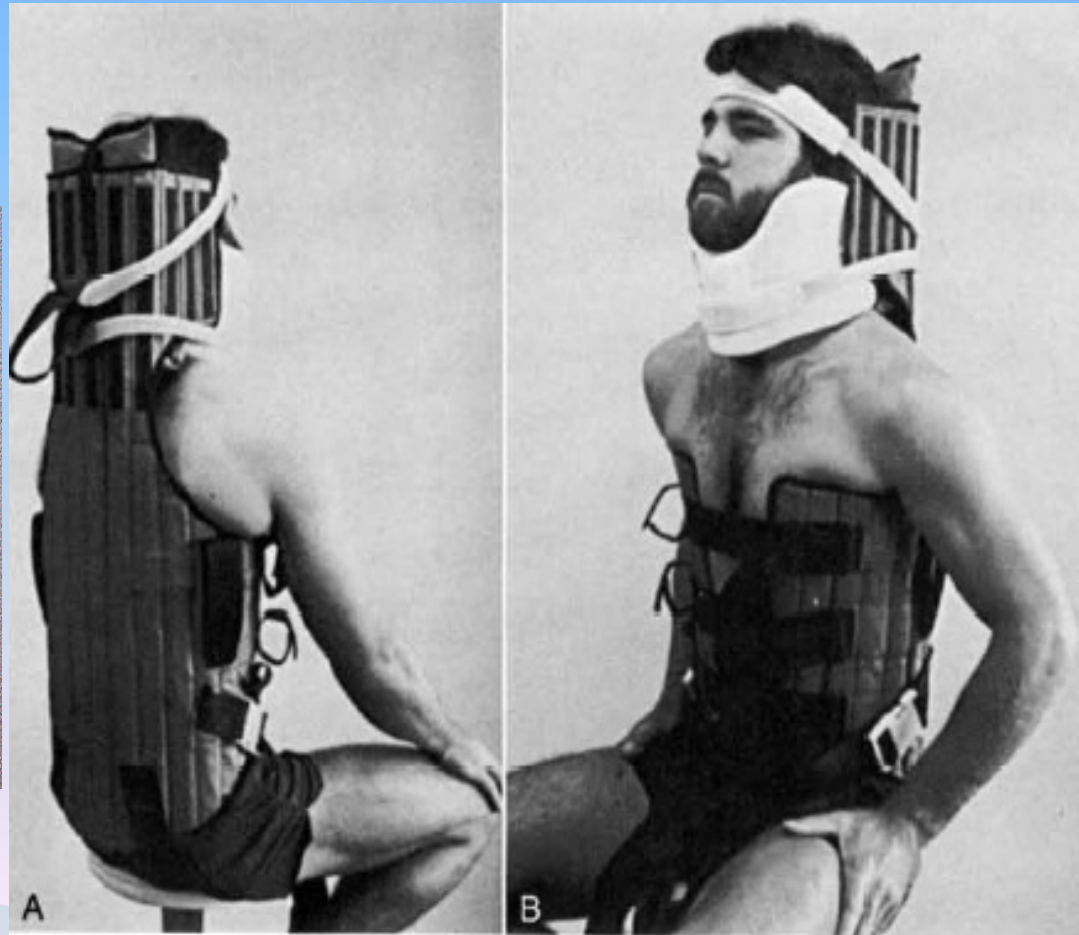
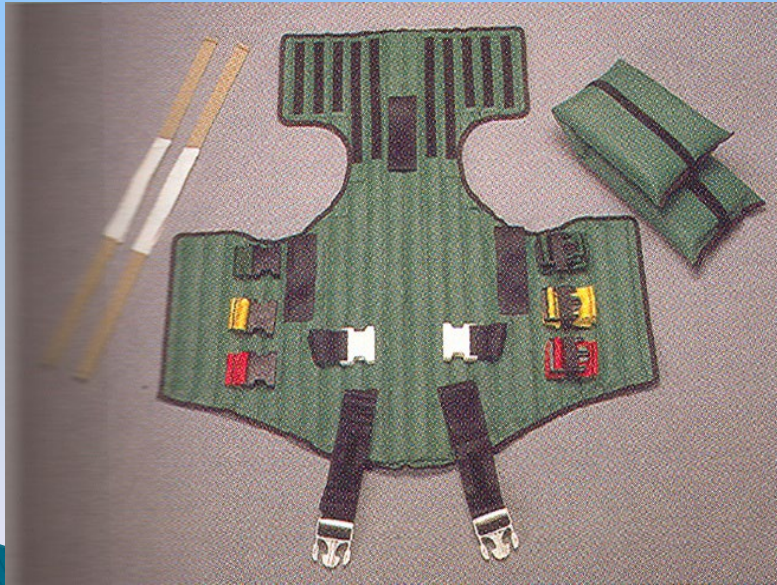


STIFNECK COLLAR



Sitting Position

The Kendrick Extrication Device (KED)



Sitting Position



Sitting Position



Sitting Position



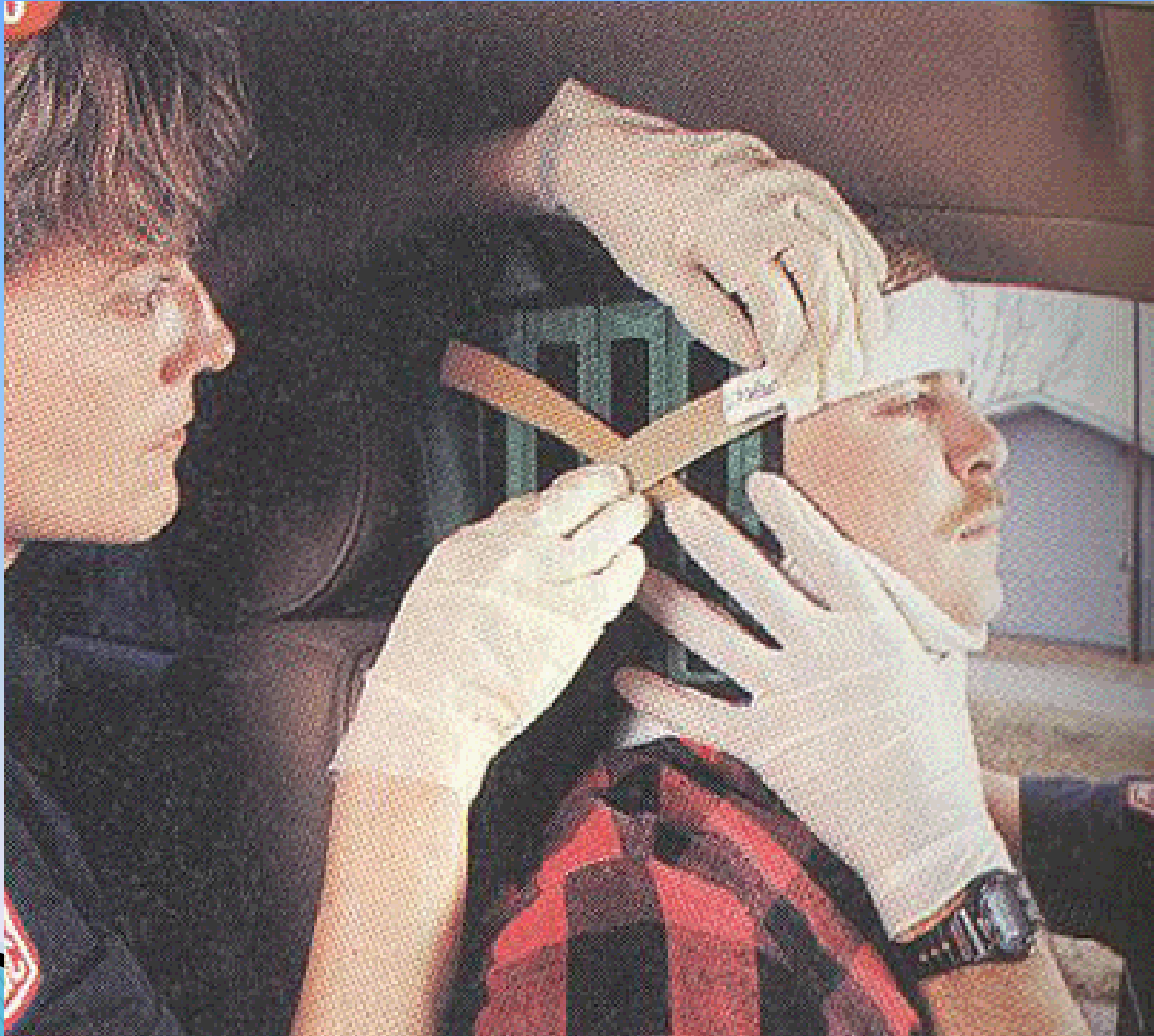
Sitting Position



Sitting Position



Sitting Position



Sitting Position



Sitting Position

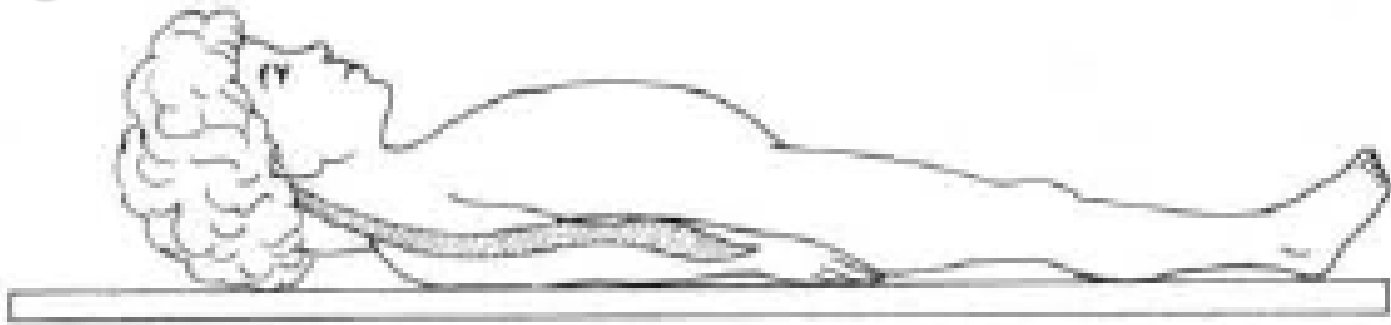


Sitting Position



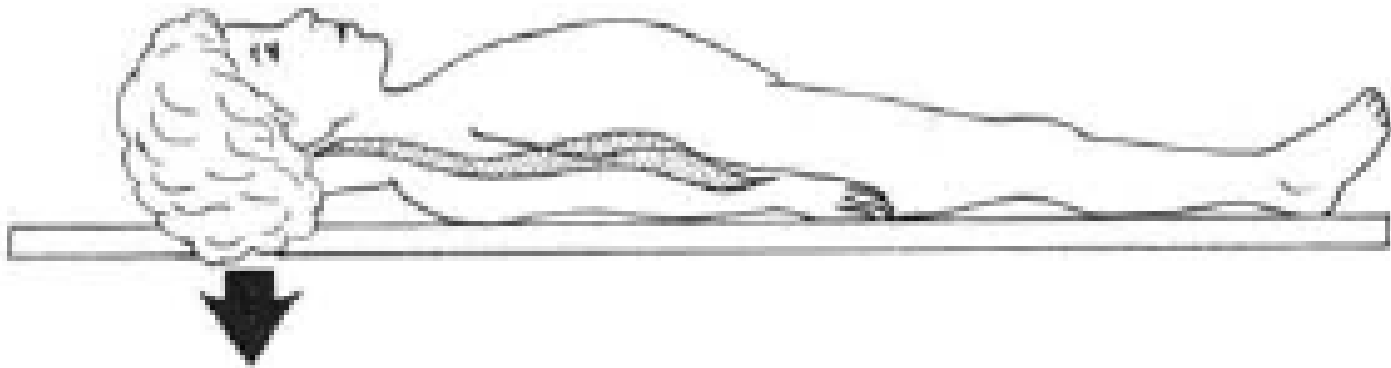
A young child immobilized on a standard backboard

A



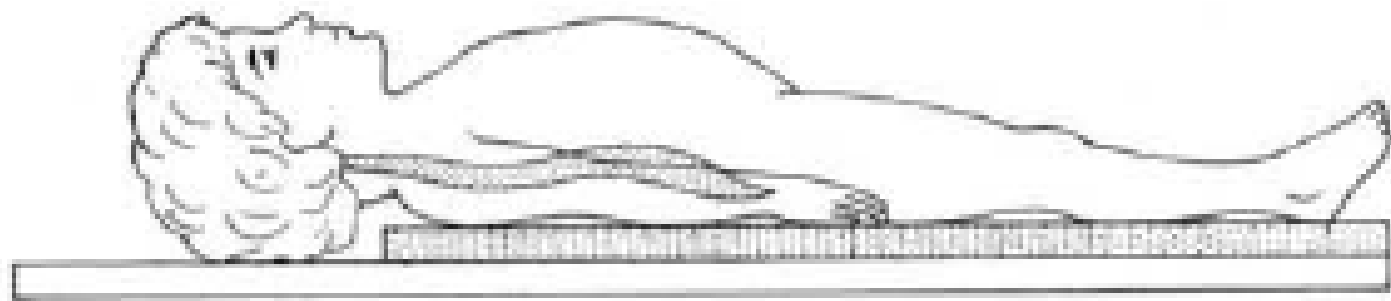
An occiput cutout

B

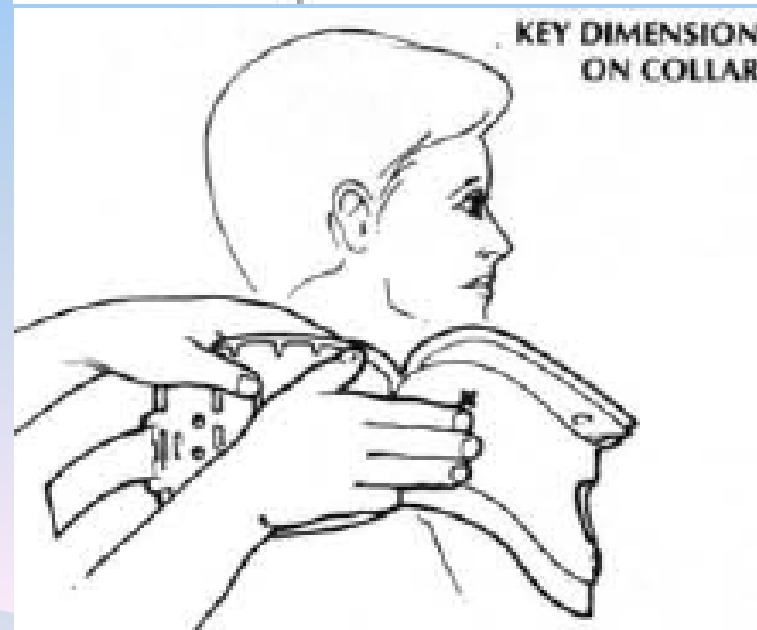
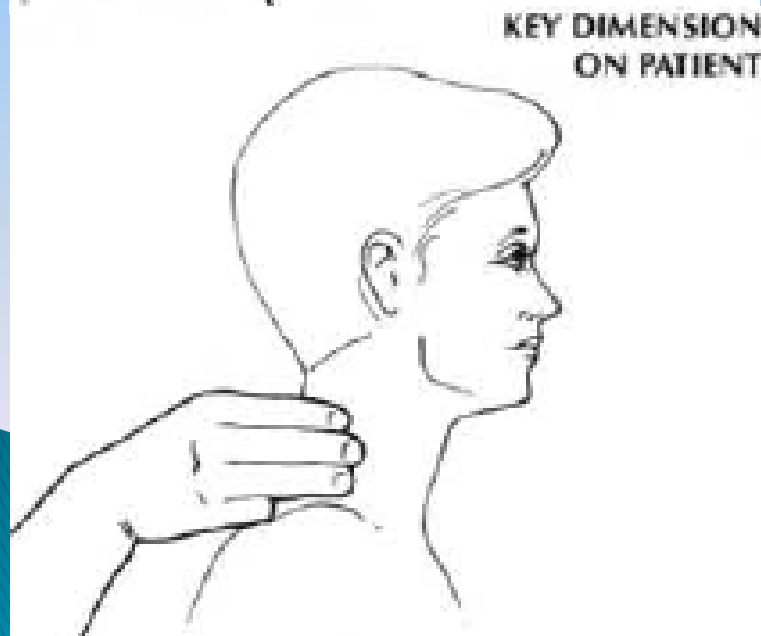
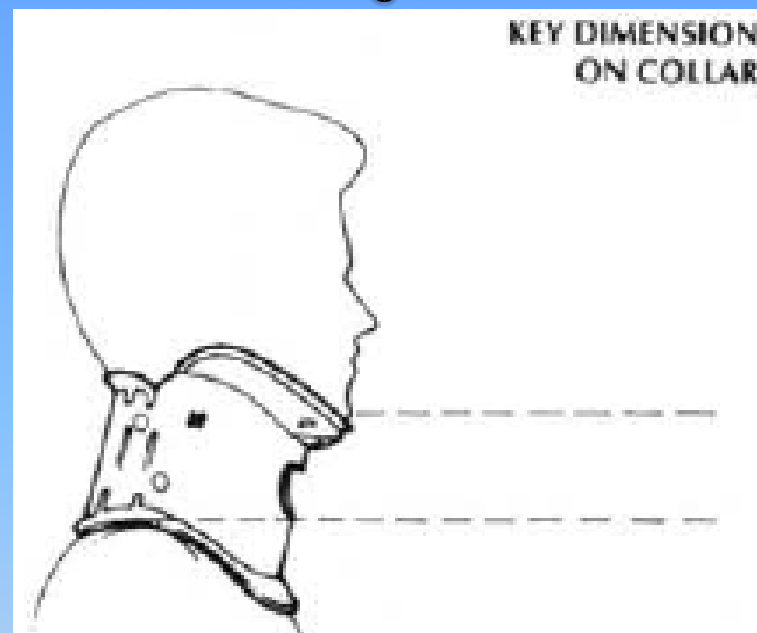
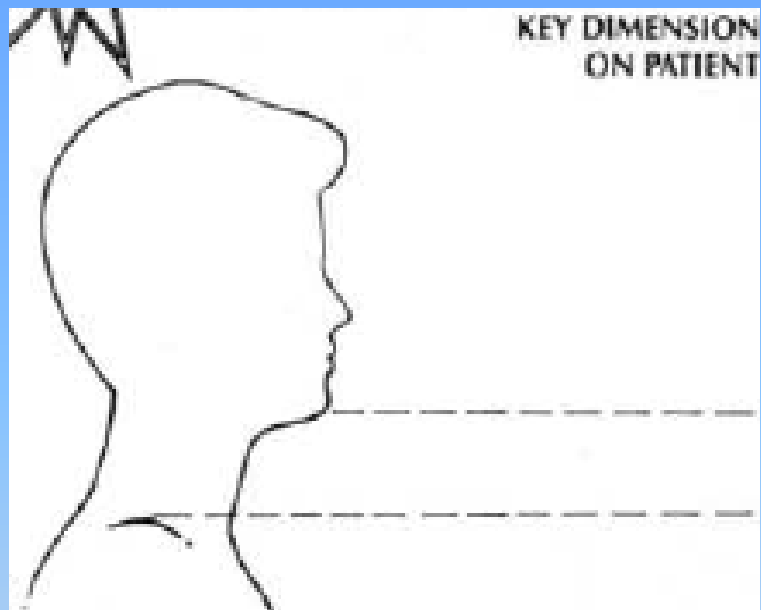


A double mattress pad

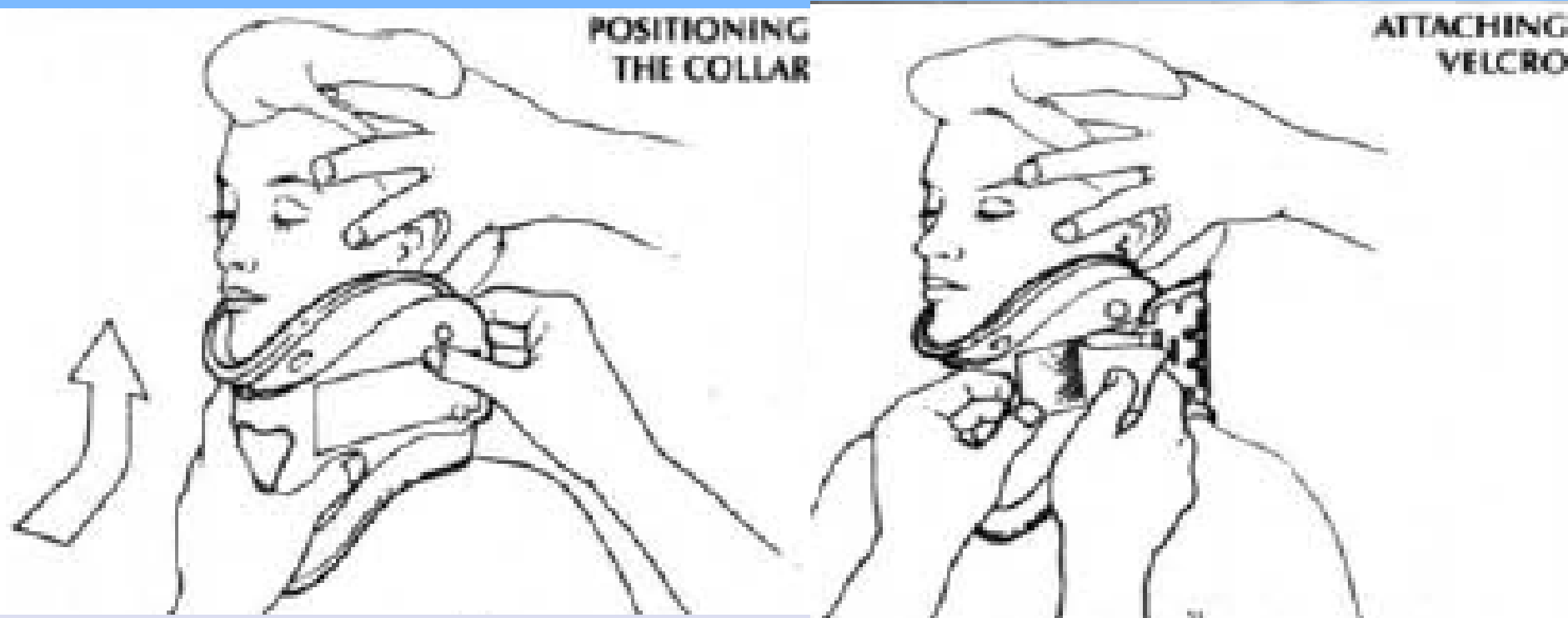
C



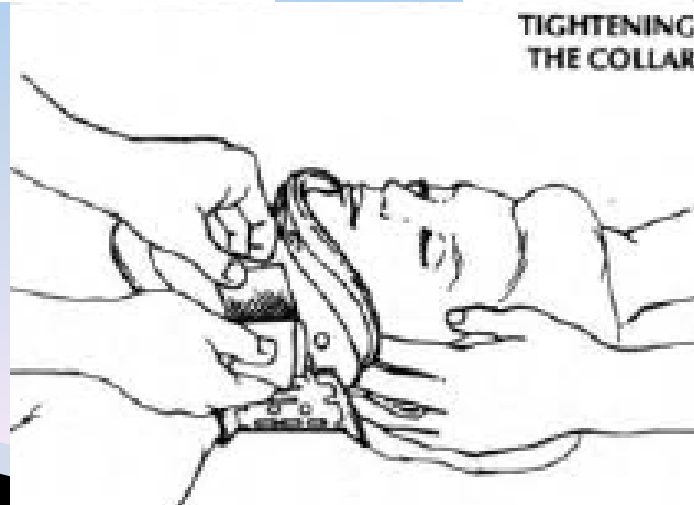
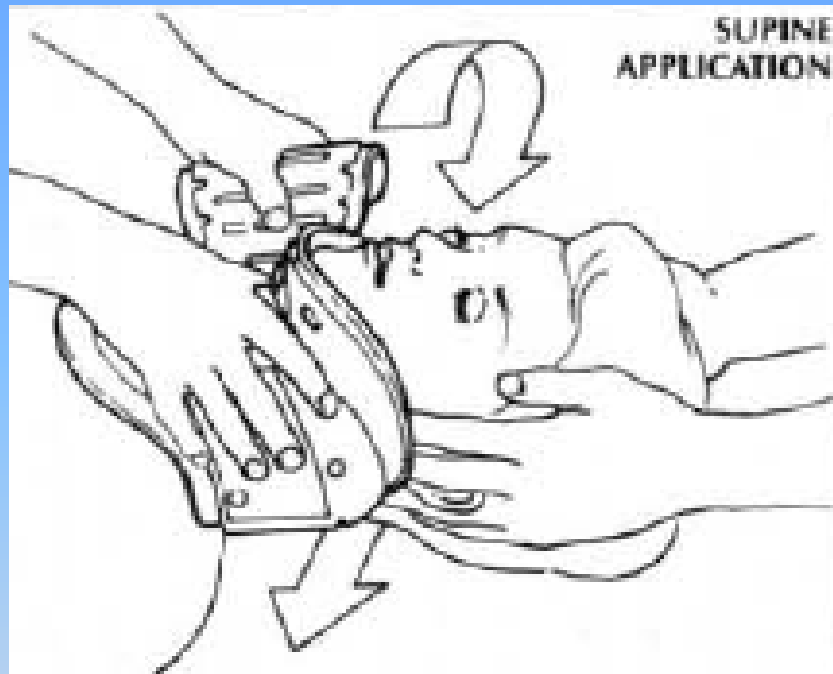
Pre-determining the Correct Size



Application (Sitting/Standing Position)



Application (Supine Position)



In ED





ADVANCED TRAUMA LIFE SUPPORT (ATLS)



ATLS

- ▶ PREPARATION & TRIAGE
- ▶ PRIMARY SURVEY
- ▶ RESUSCITATION
- ▶ ADJUNCTS TO PRIMARY SURVEY
AND RESUSCITATION
- ▶ SECONDARY SURVEY
- ▶ ...



► BEFORE ALL ...

SCENE SAFETY

RESPONSIVENESS

CHECK



ATLS

***AS A GENERAL RULE, ALL
TRAUMA PATIENTS SHOULD BE
PLACED ON
SUPPLEMENTAL OXYGEN***



PRIMARY SURVEY

- ▶ **A : AIRWAY WITH CERVICAL SPINE PROTECTION**
- ▶ **B : BREATHING**
- ▶ **C : CIRCULATION**
- ▶ **D : DISABILITY OR NEUROLOGIC STATUS**
- ▶ **E : EXPOSURE(UNDRESS) AND ENVIRONMENT(TEMPERATURE CONTROL)**



SECONDARY SURVEY

- ▶ HEAD-TO-TOE EVALUATION
- ▶ GCS
- ▶ PHYSICAL EXAMINE
- ▶ LAB EXAMINE
- ▶ HISTORY **A** ALLERGIES

M MEDICATIONS CURRENTLY USED

P PAST ILLNESS / PREGNANCY

L LAST MEAL

E EVENT / ENVIRONMENT RELATED

TO INJURY



AIRWAY

- ▶ AIRWAY ASSESSMENT & MANAGEMENT
- OBSTRUCTION ...
- SWELLING ...
- PROGRESSIVE HEMATOMA ...
- DISTORTED ANATOMY ...
- ALTERED MENTAL STATUS ...



AIRWAY PROCEDURE

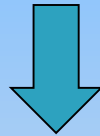
- ▶ CERVICAL COLLAR
- ▶ INTUBATION



BREATHING

▶ OXYGENATION ($P_{aO_2} > 60\text{mmHg}$)

▶ VENTILATION : inspection



palpation



auscultation



BREATHING PROCEDURE

- ▶ CHEST TUBE

- ▶ NEEDLE THORACOTOMY



CIRCULATION

- ▶ HEMODYNAMIC ASSESSMENT
- ▶ EXTERNAL HEMORRHAGE CONTROL
- ▶ IV/IO ACCESS & FLUID RESUSCITATION
- ▶ EXTENDED FAST



DISABILITY OR NEUROLOGIC STATUS

► INCLUDE :GCS

PUPIL

MOTOR



EXPOSURE(UNDRESS) AND ENVIRONMENT(TEMPERATURE CONTROL)

- ▶ COMPLETELY UNDRESS THE PATIENT BUT PREVENT HYPOTHERMIA
- ▶ LOGROLL & TR & TV



ADJUNCTS TO PRIMARY SURVEY AND RESUSCITATION

- ▶ X-RAYS AND DIAGNOSTIC STUDIES
 - _ Chest , Pelvis , C-spine , DPL or FAST
- ▶ URINARY AND GASTRIC CATHETERS
- ▶ MONITORING
 - _ABG analysis and ventilatory rate ,
ETCO2, ECG , POM , BP



GLASGOW COMA SCALE

- ▶ Eye opening (E)
 - Spontaneous
- 4
- To speech
- 3
- To pain
- 2
- None
- 1



GLASGOW COMA SCALE

- ▶ Best motor response (M)
 - Obeys commands 6
 - Localizes pain 5
 - Normal flexion (withdrawal) 4
 - Abnormal flexion (decorticate) 3
 - Extension 2
 - None (flaccid) 1



Table 38-1 **Glasgow Coma Scale**

RESPONSE	SCORE	SIGNIFICANCE
EYE OPENING		
Spontaneously	4	Reticular activating system is intact; patient may not be aware
To verbal command	3	Opens eyes when told to do so
To pain	2	Opens eyes in response to pain
None	1	Does not open eyes to any stimuli
VERBAL STIMULI		
Oriented, converses	5	Relatively intact CNS, aware of self and environment
Disoriented, converses	4	Well articulated, organized, but disoriented
Inappropriate words	3	Random exclamatory words
Incomprehensible	2	Moaning, no recognizable words
No response	1	No response or intubated
MOTOR RESPONSE		
Obeys verbal commands	6	Readily moves limbs when told to
Localizes to painful stimuli	5	Moves limb in an effort to remove painful stimuli
Flexion withdrawal	4	Pulls away from pain in flexion
Abnormal flexion	3	Decorticate rigidity
Extension	2	Decerebrate rigidity
No response	1	Hypotonia, flaccid: suggests loss of medullary function or concomitant spinal cord injury

GLASGOW COMA SCALE

► Verbal response (V)

– Oriented

5

– Confused conversation

4

– Inappropriate words

3

– Incomprehensible sounds

2

– None

1





THANKS FOR YOUR PATIENCE