



MEDICAL ISSUES





Medical Readiness

- Your Crew
 - Mids and Civilians
- Your Vessel
 - Navy 44
- Your Destination
 - Newport
 - ?



Medical Readiness for The Crew

- Pre-existing medical problems:
 - Some common are hypertension, chronic back pain, and heart disease.
- Individual Medications:
 - Who takes what? Do they have a supply for the duration?
- Serious Allergies
- Smokers and Drinkers (At sea is not the time to quit)
- Seasickness
- A Summary Medical Record for Each Member



Medical Questionnaire

1. Your medical conditions requiring regular attention
2. Past surgeries and inactive medical problems
3. Medications and allergies
4. Who to call in an emergency



Medical Readiness for Your Vessel

- **Secure Storage:** Will anything fly if you suffer a knockdown?
- **Do you have a preventer?** If not, can you perform neurosurgery underway?
- **Secure harnesses and jacklines**
- **A comprehensive medical locker**
- **Communication Link: Primary and Secondary**







CRUISING SKIPPER (D-CS) PQS

- **Medical**

- Maintains and inventories medical kit.
- Ensures supply of seasick-friendly foods and drinks available.
- Ensures personal, food handling, head and boat hygiene standards are maintained.
- Supervises or provides application of first aid and CPR afloat.
- Supervises and records use of medicines.
- Seeks external advice for and recommends disposition of ailing crew.

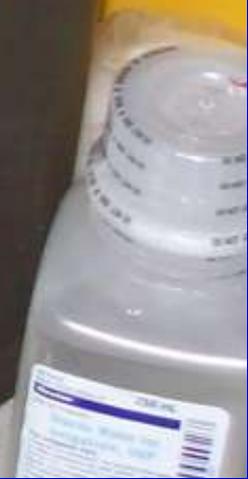
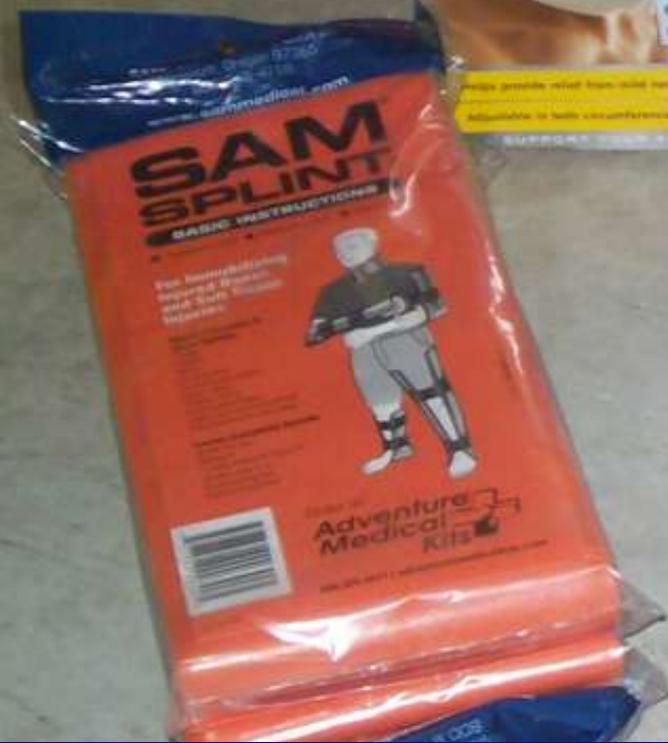


CRUISING SKIPPER (D-CS) PQS

- **Medical**

- a. Maintains and inventories medical kit.

NA-21





CRUISING SKIPPER (D-CS) PQS

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- b. Ensures supply of seasick-friendly foods and drinks available.



Seasickness Food and Drink

- **Foods**
 - Ginger Snaps
 - Saltine crackers
 - Less acidic fruits (apples, bananas, pears, grapes, melons, etc.),
 - Breads (muffins, croissants, rolls), cereals and grains as alternatives.
- **Drinks**
 - Ginger Ale
 - Coke, Pepsi
 - Milk, water, apple juice, cranberry juice



Seasickness Food and Drink

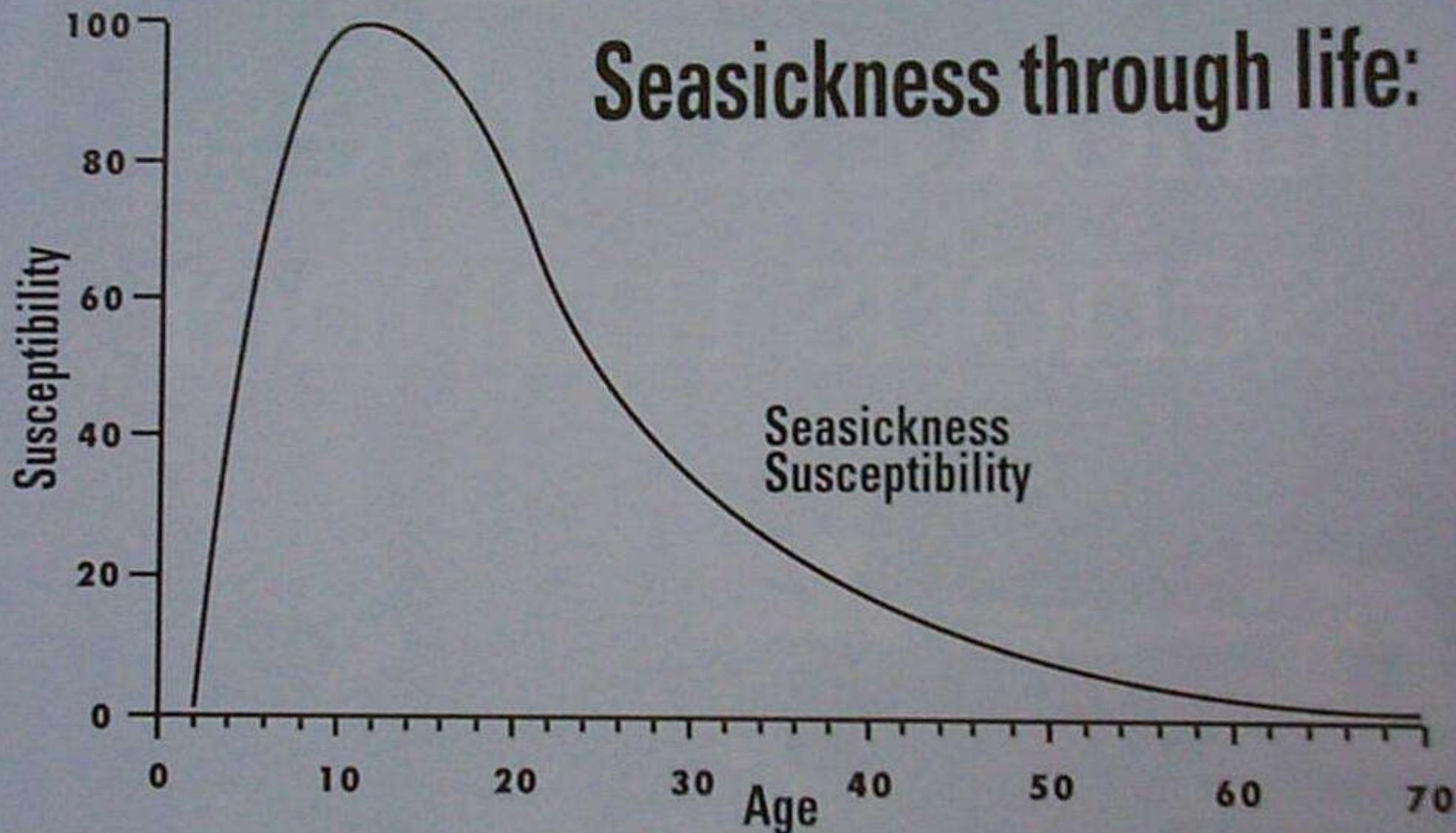
- Do not eat/drink....
 - Greasy or acidic foods for several hours before sailing.
 - Coffee, bacon and eggs, sausage, waffles or pancakes with syrup,
 - Acidic juices, orange juice, grapefruit
- Caffeinated beverages should be avoided, as they are diuretics which accelerates dehydration.
- Be sure to test medications or remedies on land before your trip, to make sure any side effects are not severe.



Medical Response: Seasickness

- Mismatch between what your middle ear feels and what your eyes see.
- Steer the boat for awhile. Do something on deck.
- Stabilize your neck with a c-collar or towel wrap.
- Lie down, neck stabilized, head slightly elevated, in the lowest center point.
- Meclizine (Bonine) is good before you go.
- Compro - Prochlorperazine Suppository

Seasickness through life:





CRUISING SKIPPER (D-CS) PQS

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- b. Ensures supply of seasick-friendly foods and drinks available.

- c. Ensures personal, food handling, head and boat hygiene standards are maintained.



Hygiene Standards

- Wash your hands
- Wash your dishes and utensils
- What do we have to clean with?
 - Alcohol
 - Waterless hand sanitizer
 - Regular soaps



CRUISING SKIPPER (D-CS) PQS

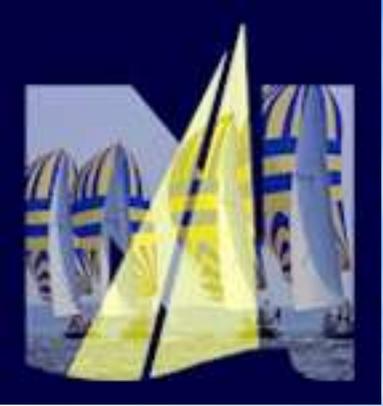
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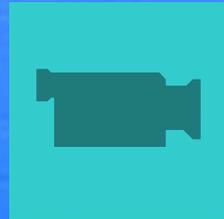
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- c. Ensures personal, food handling, head and boat hygiene standards are maintained.

- d. Supervises or provides application of first aid and CPR afloat.



Trunk Monkey





Common Illnesses and Injuries

- Seasickness / Dehydration
- Hyperthermia / Heat Exhaustion / Sun Sickness
- Hypothermia
- Lacerations and Contaminated Wounds
- Broken bones, injured backs, pulled muscles, wrist tendonitis
- Devastating Injuries: Head Trauma, Heart Attack, Major Burns



Hypothermia

- Can be subtle, like dehydration, can impair judgement and performance
- Wind and being wet lead to rapid heat loss
- Obey the Ocean Dress Code: **Layer upon Layer!**
- Treat it by: Strip him, Dry him, Rack and Sack him, Hot Liquids
- **WARM THE CORE FIRST: THE LIMBS WILL WAIT**



Hyperthermia

- Heat exhaustion is just that, too tired, too hot. Left unchecked, it becomes...
- Heat Stroke, a slowly frying brain
- Cool the core with cold fluids, cool the limbs with cold liquids and a fan



Sun Sickness

- Sunblock: 30 grade, waterproof, twice a day. Apply esp.. to the ears and tip of your nose.
- Late stage Melanoma is lethal, so look for it first:
 - irregular speckled border
 - bizarre and inconsistent coloration
 - history of rapid growth
- Fair skinned folks should perform a mole check once a month.



Lacerations and Wounds

- Obey the 3 Rules of Managing Wounds:
 1. Open it till you see or feel the bottom.
 2. Clean it.
 3. Make sure the rest of the limb still works.
- NEVER, EVER, CLOSE A DIRTY WOUND.
Infection and death may ensue.
- If in doubt, clean it, pack it with clean gauze, and leave it open

Boom to the back of the head.



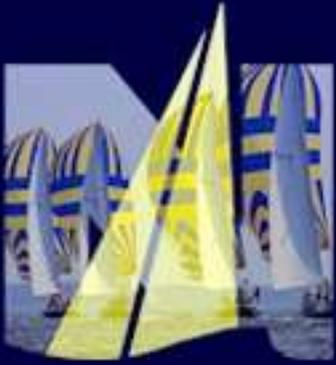
**You must see the bottom
of the wound**



Rinse, Rinse, Rinse.

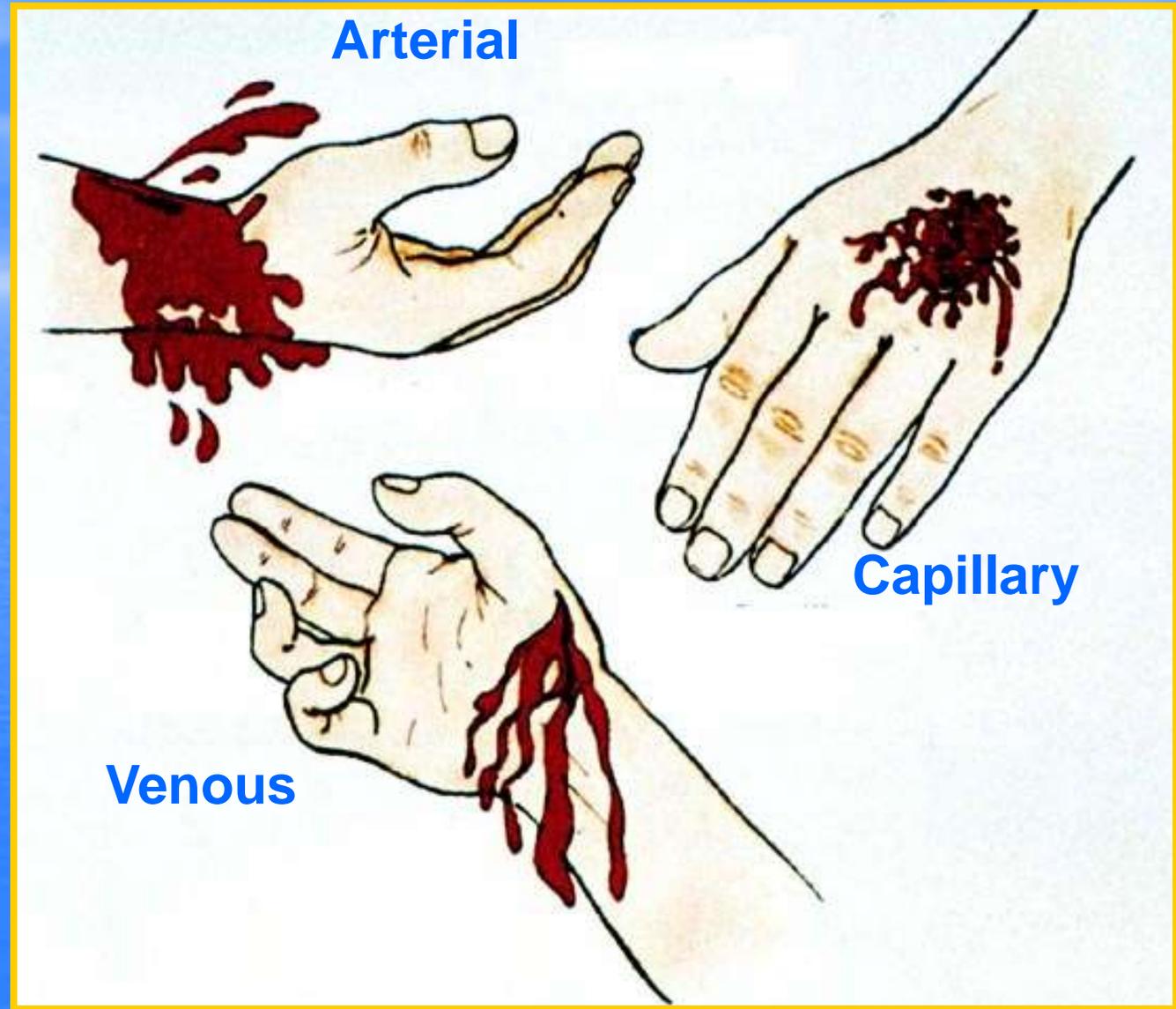


Staple/tape it together. Keep the edges up

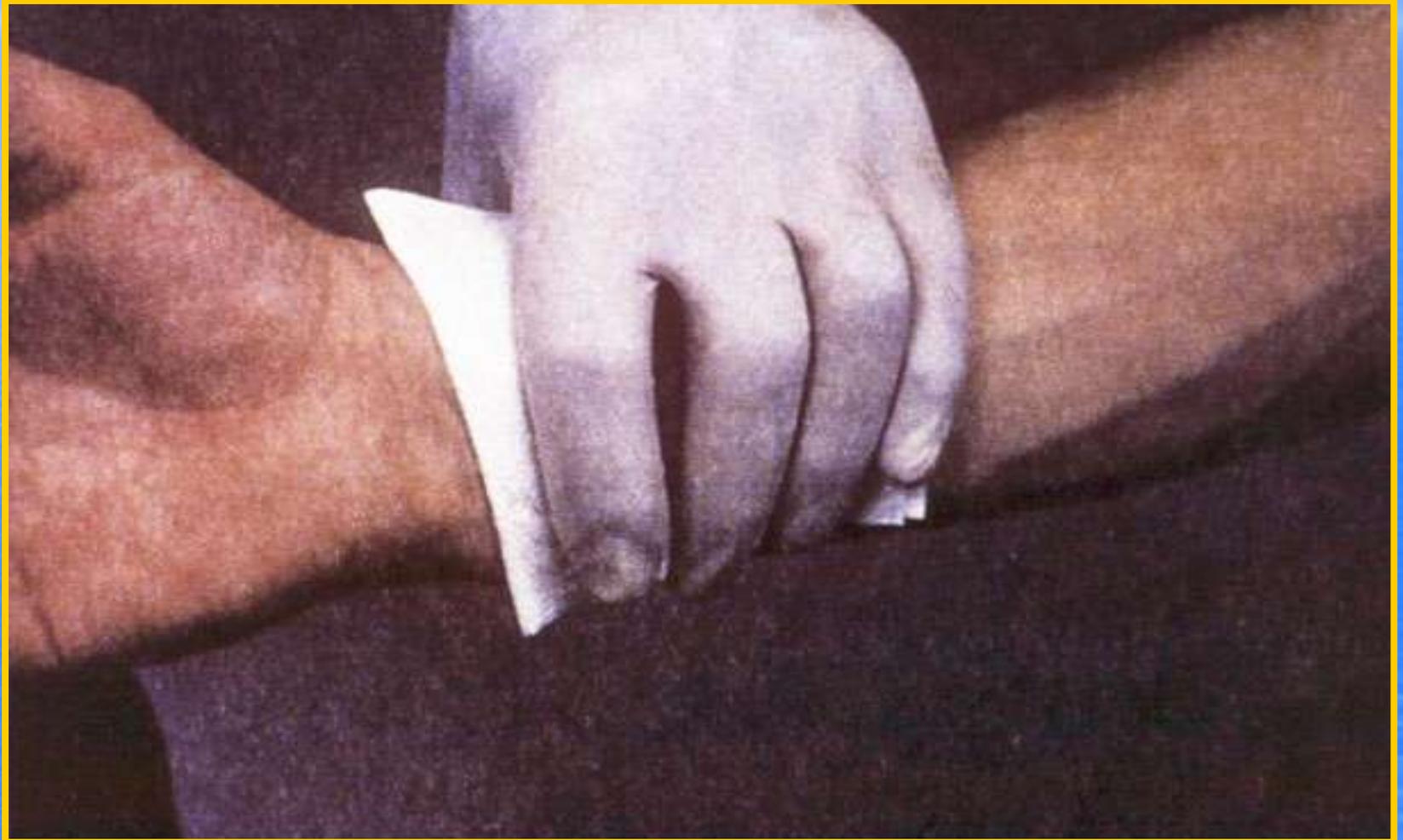




3 Types of External Bleeding



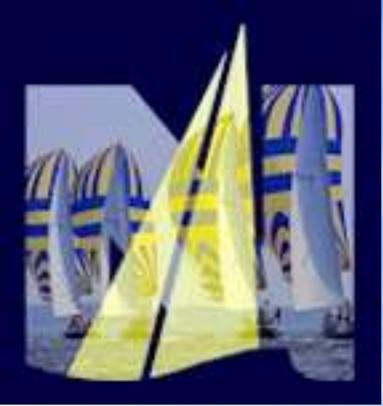
Direct Pressure





Elevation





Pressure Bandage



Pressure Point – Brachial



Pressure Point – Femoral



A tourniquet is a last resort.





Managing a Simple Nosebleed





Skull Fracture

- * May cause loss of blood or clear fluid (cerebrospinal fluid) from the nose and ears.
 - HALO test
- * Do not stop the flow of fluid.



Signs & Symptoms of Internal Bleeding

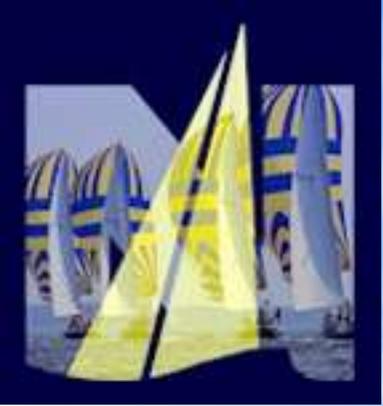
- * Significant MOI
- * Pain, tenderness, deformity, swelling, discoloration
- * Tender, rigid, or distended abdomen



Signs & Symptoms of Shock

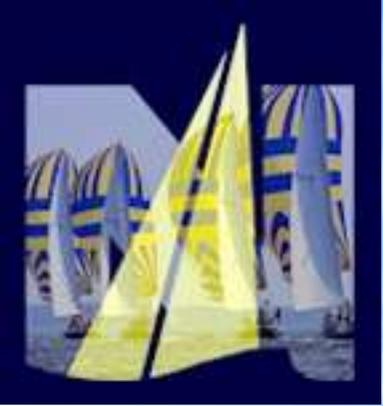
- * Nausea and vomiting
- * Dilated pupils
- * Thirst
- * Cyanosis
- * Restlessness, changes in mental status
- * Pale, cool, and clammy skin
- * Increased pulse rate
- * Increased respiratory rate

Elevate lower extremities 8-12 inches.



Prevent loss of body heat.





Allergic Reaction

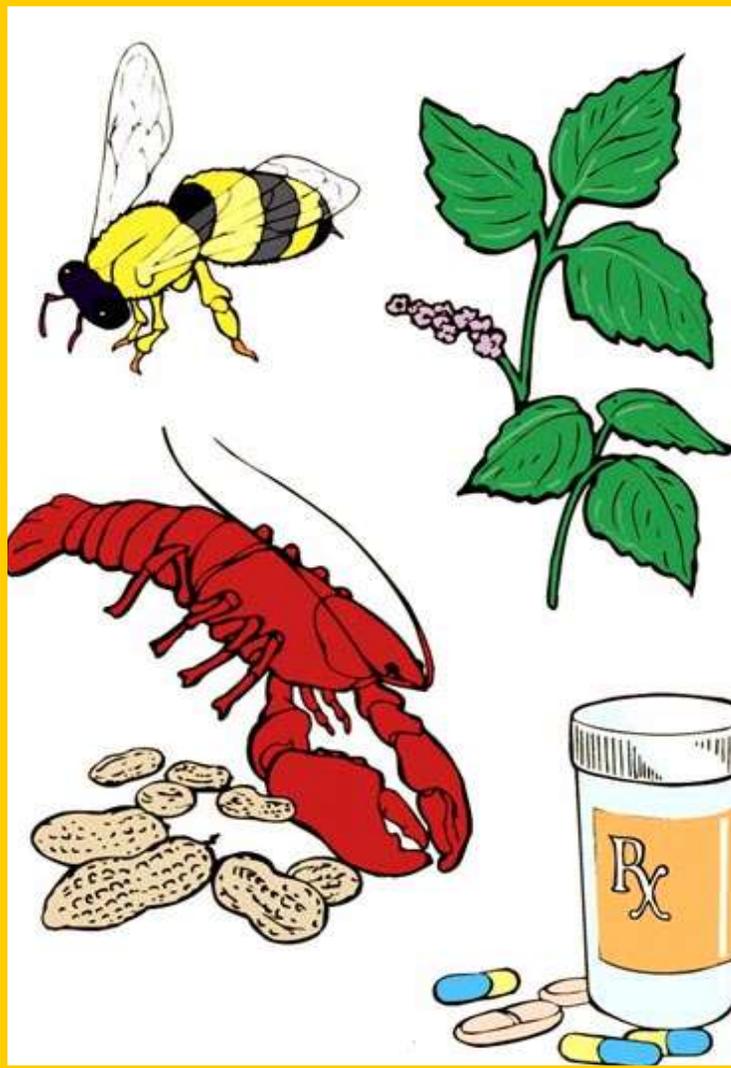
An exaggerated reaction by the body's immune system to any substance

Anaphylaxis

A life-threatening allergic reaction which causes shock (hypoperfusion) and airway swelling

Common Allergens (Causes) of Allergic Reactions

Insect stings



Plants

Foods

Medications



Signs and Symptoms

Generalized Findings

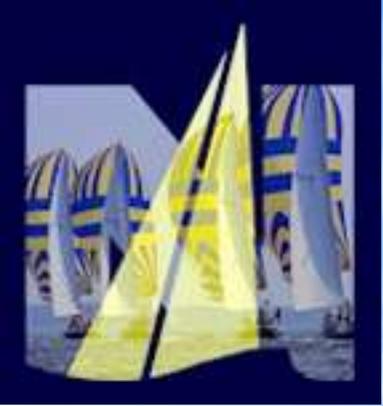
- * Itchy, watery eyes and runny nose
- * Headache
- * Sense of impending doom



Signs and Symptoms

Skin

- * Itching
- * Hives
- * Flushing
- * Warm, tingling feeling
- * Swelling (especially face, neck, hands, feet, tongue)



Signs and Symptoms

Respiratory

- * Tightness in throat/chest
- * Cough
- * Rapid, labored, noisy breathing
- * Hoarseness
- * Stridor and wheezing





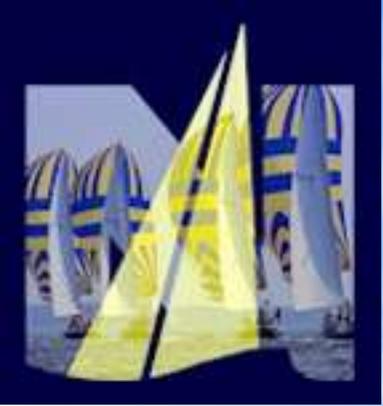
Emergency Care of Allergic Reactions

- * Reassess in 2 minutes.**
- * Record reassessment findings.**
- * If patient does not have epinephrine auto-injector, consult medical direction.**



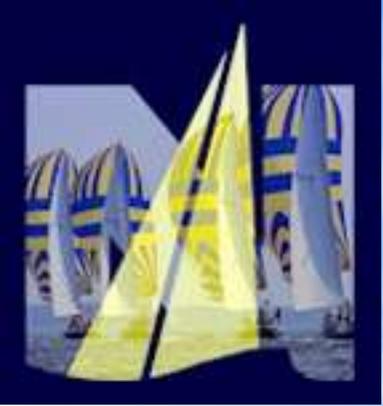
Sources of Burns

- * Thermal
- * Chemical
- * Electrical
- * Light
- * Radiation



Classifying Burns by Depth





Body Surface Area

A burn equivalent to the size of the patient's hand is equal to 1% body surface area (BSA).



Emergency Care of Burns

- * Monitor the airway for closure.**
- * Cover burn area with dry, sterile dressing.**
- * Do not use ointments/lotions.**
- * Do not break blisters.**



Types of Musculoskeletal Injuries

* Fracture

- * Bones break

* Dislocation

- * Joints “come apart”

* Sprain

- * Stretching & tearing of ligaments

* Strain

- * Overexertion of muscle



Signs & Symptoms of Musculoskeletal Injuries

- * Pain and tenderness
- * Deformity or angulation
- * Grating (crepitus)
- * Swelling



Muscles, Bones, and Backs

- RICE it:
 1. Rest it
 2. Immobilize it with a splint.
 3. Cold and Compress it.
 4. Elevate it.



Splinting – General Rules

- * Assess distal pulse, motor function, and sensation (PMS) before & after application.**
- * Immobilize joints above & below injury.**

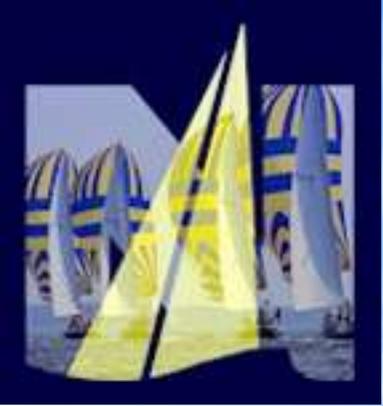


Splinting – General Rules

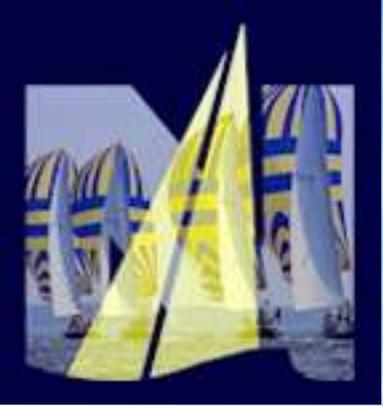
- * Remove or cut away clothing.**
- * Cover open wounds with sterile dressings.**
- * Do not replace protruding bone ends.**
- * Pad splint and void areas.**

Long-Bone Splinting

Stabilize extremity manually.



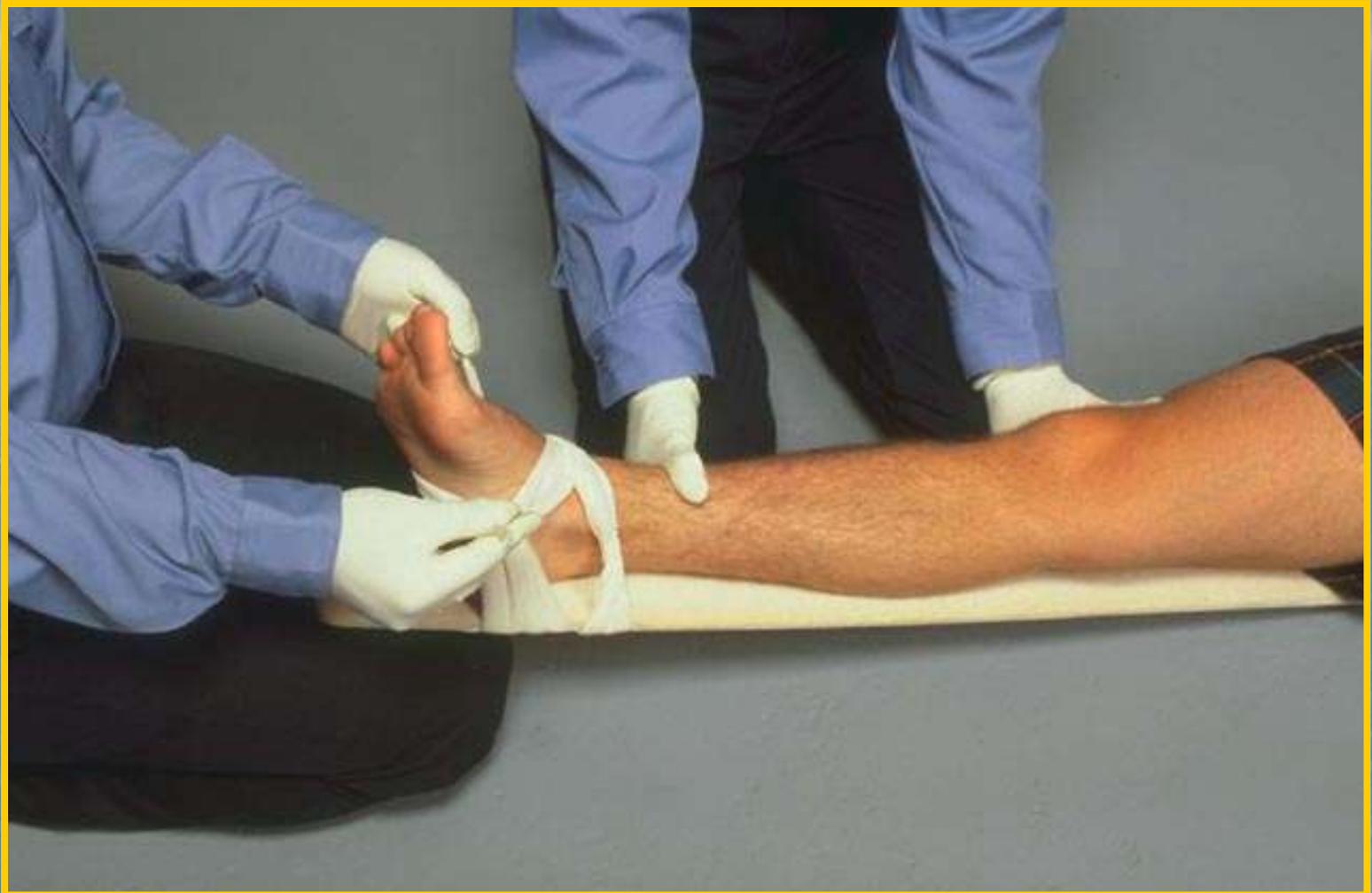
Assess distal PMS



Make sure splint extends several inches beyond joints above/below injury.



**Apply splint. Immobilize joints
above/below injury.**



Secure extremity to splint.



Secure foot or hand in the Position of function.



Reassess distal PMS.



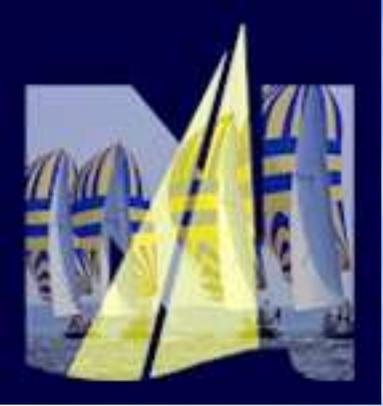
Joint Immobilization: Stabilize injured area manually.



Assess distal PMS.



**Immobilize injury site and bones
above and below.**



Reassess distal PMS.



Assess PMS; position sling.



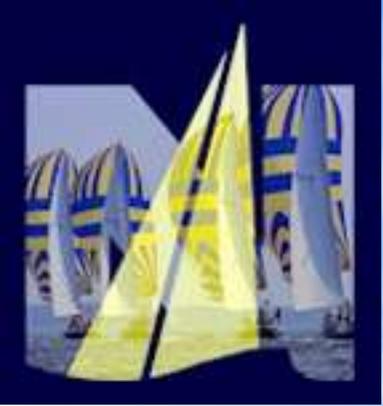
Tie swathe around sling.

Splint for Injured Forearm



Spine Immobilization



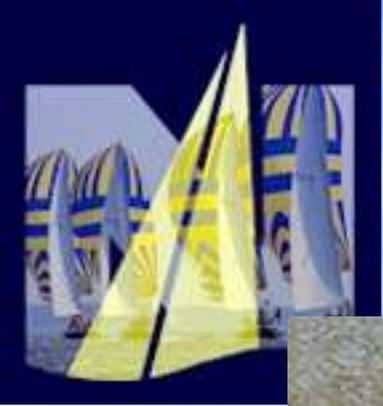




Splint for Injured Finger



Fractured toes. Buddy tape it.



Chest Pain

•Non-Cardiac Chest Pain

- Sharp, stabbing
- Localized, non-radiating
- Provoked with movement or respiration
- Worsens when pressing on it
- Relieved by antacids
- Short-lived, less than 30 seconds

•Cardiac Chest Pain

- Dull ache, pressure sensation
- Substernal, radiates to arms, neck
- Not worsened by movement or respiration
- Not affected by pressing on it
- Not relieved by antacids
- Lasts more than 3 minutes

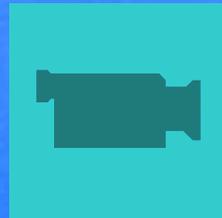


Basic Life Support CPR Review





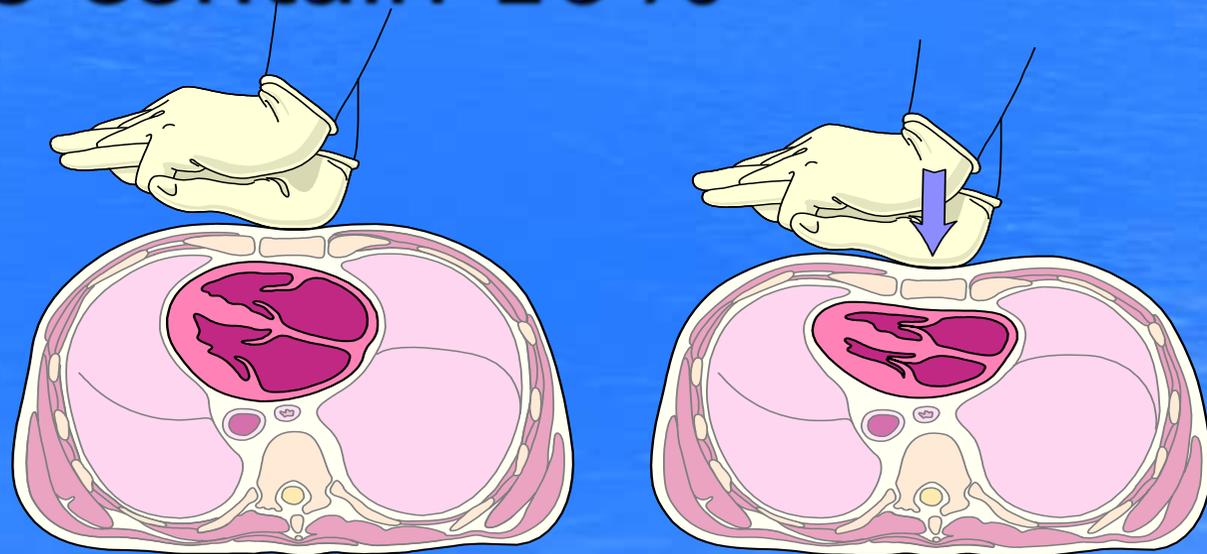
Mr Bean does CPR





How CPR Works

- Effective CPR provides 1/4 to 1/3 normal blood flow
- Rescue breaths contain 16% oxygen (21%)



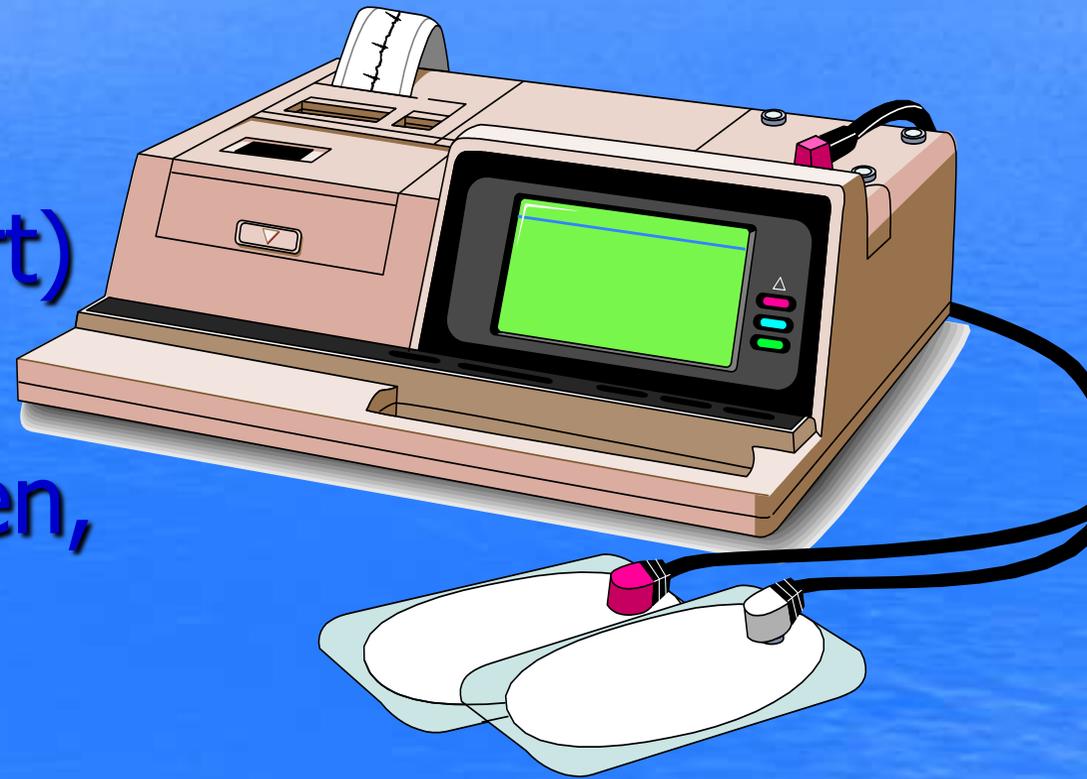


Start CPR Immediately

- Better chance of survival
- Brain damage starts in 4-6 minutes
- Brain damage is certain after 10 minutes without CPR

Even With Successful CPR, Most Won't Survive Without ACLS

- **ACLS (Advanced Cardiac Life Support)**
- **ACLS includes defibrillation, oxygen, drug therapy**





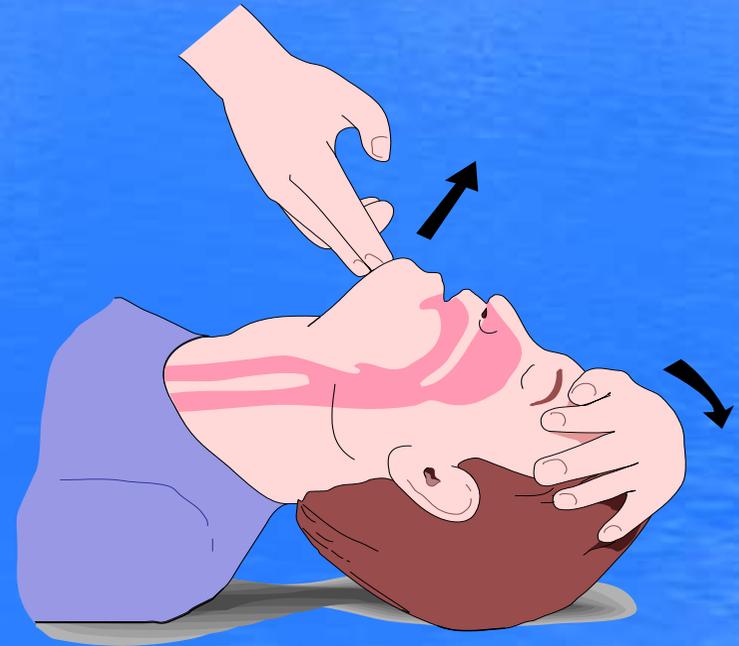
ABC's

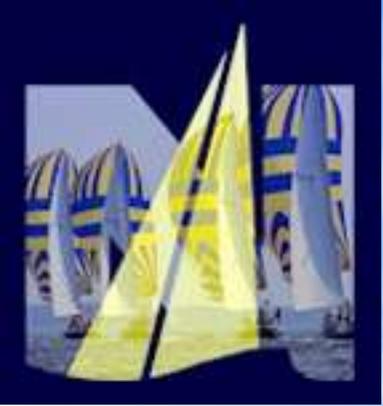
- **Airway**
- **Breathing**
- **Circulation - Bleeding**



Checking Vital Signs

- **A – Airway**
 - **Open the airway**
 - **Head tilt chin lift**





B – Check For Breathing

- **Look, listen and feel for breathing**
 - **No longer than 10 seconds**



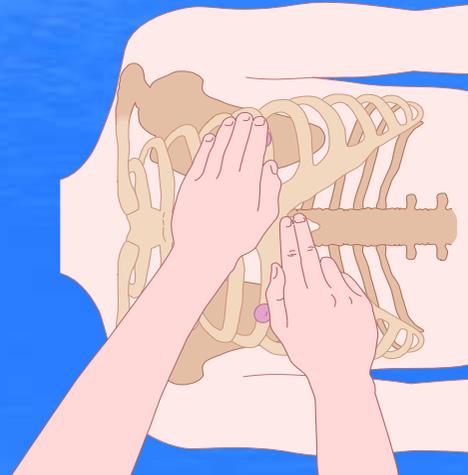
Breathing

- If the victim is not breathing, give two breaths (1 1/2 seconds or longer)
 - Pinch the nose
 - Seal the mouth with yours
- If the first breath doesn't go in, re-position and give a second breath (if breaths still does not go in, begin CPR)



Compressions

- After giving breaths...
- Locate proper hand position for chest compressions





Compressions

- Using both hands, give 30 chest compressions
- Depth of compressions:
1.5 to 2 inches





CPR

- After 30 chest compressions give:
- 2 breaths
- Continue until help arrives or victim recovers
- If the victim starts moving: check breathing

Choking

- The tongue is the most common obstruction in the unconscious victim (head tilt- chin lift)
- Vomit
- Foreign body
 - Foods
- Swelling (allergic reactions/ irritants)
- Spasm (water is inhaled suddenly)





How To Recognize Choking

- Can you hear breathing or coughing sounds?
 - High pitched breathing sounds?
- Is the cough strong or weak?
- Can't speak, breathe or cough
- Universal distress signal (clutches neck)
- Turning blue



Recognizing Choking

- A partial airway obstruction with poor air exchange should be treated as if it were a complete airway blockage.
- **If victim is coughing strongly, do not intervene**



Conscious Choking

(Adult Foreign Body Airway Obstruction)

- Give abdominal thrusts (Heimlich maneuver)
 - **Place fist just above the umbilicus (normal size)**
 - Give upward and inward thrusts
- Continue until successful or victim becomes unconscious



If Victim Becomes Unconscious After Giving Thrusts

- Try to support victim with your knees while lowering victim to the floor
- Assess
- Begin CPR
- After chest compressions, check for object before giving breaths





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- e. Supervises and records use of medicines.

Pharmacology

- **Ibuprofen 200 mg**
 - anti-inflammatory
 - 400mg every 4-6 hrs use lowest effective dose give with food
- **Tylenol Regular strength – acetaminophen**
 - Pain, fever
 - 325-1000mg by mouth
- **Peptic Relief -- Bismuth Subsalicylate (Kaopectate, Pepto-Bismol)**
 - Diarrhea (acute)
 - 2 tablets by mouth every 1hr as needed; Max 4200 mg/24 hrs



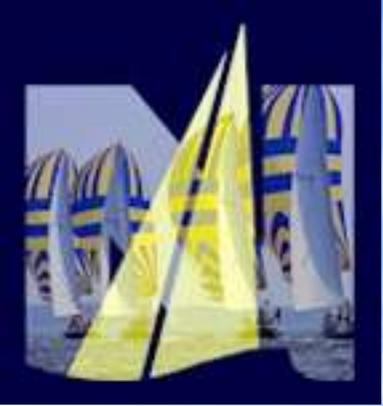
Pharmacology

- Hydrogen Peroxide 3% topical solution
 - First Aid antiseptic (wound cleansing)
 - 1-3x day, let dry before bandaging
 - Oral debriding agent (can use as gargle or rinse)
 - Mix 50/50 with water, swish for 1 minute



Pharmacology

- **Clotrimazole Cream**
 - Antifungal
- **Hydrocortisone Cream 1%**
 - Anti-itch, dermatoses
- **Antibiotic ointment – Bacitracin**
 - superficial infections
 - max 5x day – 7 days



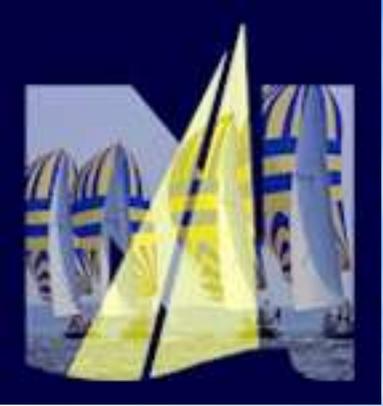
Pharmacology

- **Cepacol**
 - sore throat
- **Aprodine tablets – triprolidine and pseudoephedrine hydrochloride**
 - Colds
- **Pseudoephedrine 30 mg**
 - nasal congestion
 - 60 mg every 4-6 hrs; max 240 mg in 24 hrs
 - caution with beta blockers, monitor blood pressure
 - common reactions include; insomnia, nausea, headache, dizziness



Pharmacology

- **Meclizine Hydrochloride - Antivert**
 - motion sickness
 - 25-50 mg by mouth (chewable) every 24 hrs
 - caution with aspirin and muscle relaxant combo – psychomotor impairment



Pharmacology

- **Banophen – Diphenhydramine HCl 25mg (Benadryl)**
 - Allergic reaction
 - 25-50 mg by mouth every 4-6 hrs as needed; max 100 mg/dose or 400 mg/day
 - also for insomnia and sedation,
 - plus motion sickness start 30 before exposure
 - common reactions; sedation, dizziness, incoordination



Pharmacology

- Compro - Prochlorperazine Suppository
 - Nausea/vomiting, severe
 - 25mg every 12 hrs
 - Reactions include: drowsiness, dizziness, blurred vision
 - subclass of n/v and anti-psychotics





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Communications

- Marine VHF
- Single Side Band
- SATPHONE
- Cellular Phone: effective to 20 miles offshore

Medical Resources Available

Emergency Medical
Problems call for Coast
Guard MedEvac





Medical Resources Available

- Each OTC STC and MIDN STC is equipped with a Satellite Phone (SATPHONE).
- Other STC contact the OTC
- If unable to establish comms with the OTC,
 - HF comms with the Operator. Have the Operator call the number of the nearest naval medical facility.

What do you have?

- Patient's Name
- Age/Sex
- Accident/Injury/Illness
- Mechanics of injury or history of present illness
- Vital signs (temperature and pulse)
- Pertinent physical exam findings
- Treatment already rendered
- Allergies
- Pertinent medical history
- Current medications, if any





Who to call

- Annapolis, MD:

Clinic (410) 293-1758/59

(During working hours)

Emergency (410) 293-3333

(24 hours a day)

- Newport, RI:

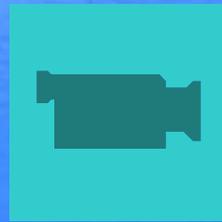
Medical Clinic (401) 841-3771

(24 hours a day)



What to do in an Emergency

- Stay calm. People rarely die suddenly.
- Move the patient to a secure bunk.
- Splint and immobilize the neck of anyone complaining of neck pain before you move.
- Find out exactly what happened.
- Call your medical resource: Report the situation clearly and calmly.
- Clarify all advice you receive.



Boat Fire