

Emergency Medical Techniques 101 for the Novice



Jeanne Marie Iverson CEO, M.S., M.S., CPE

www.vsi-consulting.com

info@vsi-consulting.com

What do You Know?

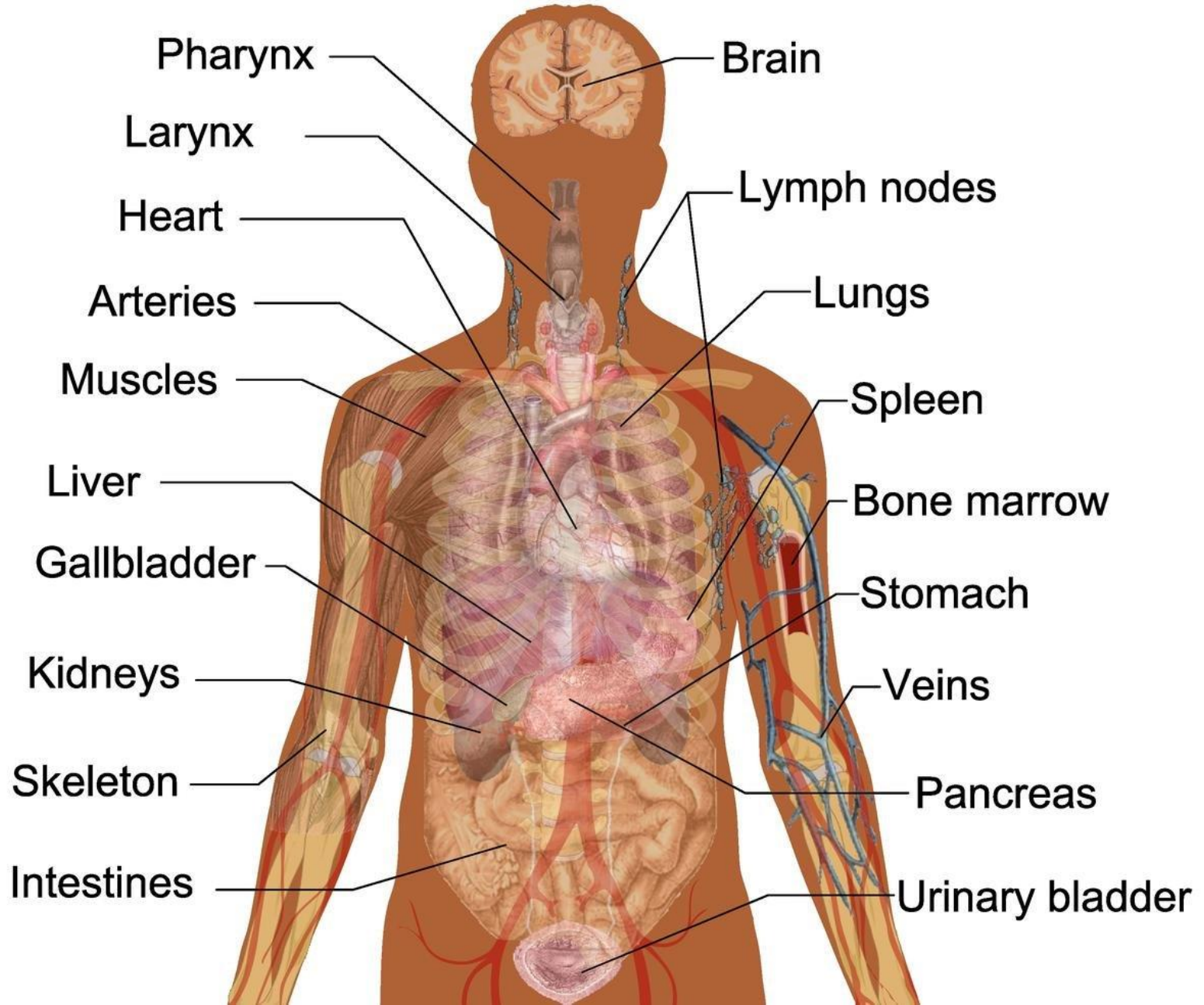
- What is the Good Samaritan Law
- Do you know where your organs are?
- When to use over the counter medicines
- What is a primary assessment and why is it important?
- Do you know how to take a pulse and understand what a pulse rate means?
- What is respiration rate and why is it important?
- How do you recognize signs and symptoms of a stroke, heart attack, angina or appendicitis?

Good Samaritan Law

- *From Division 2.5 of the California Health and Safety Code:*
- **1799.102.** *No person who in good faith, and not for compensation, renders emergency care at the scene of an emergency shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered.*

Human Organs

Internal organs



Over the Counter Medications

Over the Counter Medications

Acetaminophen, Ibuprofen & Aleve

- These drugs belong to different drug classes
- **Acetaminophen (Tylenol)** is a pain reliever (analgesic) and fever reducer (antipyretic)
- **Ibuprofen (Advil) & Aleve** (naproxen) are both nonsteroidal anti-inflammatory drug (NSAID) and are used to manage mild to moderate pain and fever. They both help prevent your body from making prostaglandins

Over the Counter Medications

Betadine vs. Hydrogen Peroxide

- Cytotoxic to healthy cells and granulating tissues
- Dries and discolors skin
- It may cause local irritation to the periwound skin
- Ineffective at killing bacteria.
- Do not use on wounds with sinus tracts

Cleaning the wound with mild soap and water or saline solution and flushing with large amounts of water is one of the best things you can do.

Over the Counter Medications

Aloe Vera – antibacterial, anti-inflammatory and antioxidant

- FDA first approved Aloe-vera ointment as an over-the-counter medication for skin burns back in 1959.
- Studies suggest that it is an effective topical treatment for first- and second-degree burns.
- A review of 4 experimental studies found that Aloe vera could reduce the healing time of burns by around 9 days compared to conventional medication
- When used as a mouth rinse, pure Aloe vera juice is just as effective at reducing dental plaque buildup as regular mouthwash
- Aloe vera gel not only accelerated the healing of mouth ulcers, it also reduced the pain associated with them

Over the Counter Medications

- **Bacitracin, Polysporin & Neosporin**
- **Polysporin** – is a first Aid Antibiotic Ointment and is the #1 Dermatologist Recommended First Aid Ointment. It is a double **antibiotic**, containing Bacitracin and Polymyxin B. It helps prevent infection in minor cuts, scrapes and burns
- **Neosporin** - although similar in healing properties as Polysporin, Neosporin also has a higher rate of allergic reaction when compared to Polysporin

Primary Assessment

primary ASSESSMENT:

G **General Impression**

- Gather information from the environment and bystanders.
- Look (patient's age, sex, position, environment).
- Listen (moaning, snoring, gurgling, machinery, crackling, etc.)
- Smell (fumes, urine, feces, vomitus, decay).

M **Mental Status**

AVPU: Alert, Responsive to Verbal stimuli, Responsive to Painful stimuli, unresponsive.
(Alert x3, Alert x2, Alert x1, Unresponsive).

A **Airway**

- Does the patient need help with the airway? (Based on AVPU).
- Trauma or unknown = Jaw Thrust NO Trauma = Head-tilt chin lift
- Suctioning, oropharyngeal or nasopharyngeal airway, Heimlich

B **Breathing**

Tidal Volume $< 300 > 210 < 25$

- Look/Rate and Depth (Supplemental O₂: BWM, Nonrebreather)
- Listen/Auscultate bilateral breath sounds Nasal Cannula.
- Feel/Inspect/palpate (chest rise/fall, wounds, sucking chest wounds, flail segments)

C **Circulation**

- Radial pulse: Present (fast/slow, regular/irregular, strong/weak)
- Not Present: check carotid. if none, compressions & AED.
- Perfusion w/ skin (color, temp, moisture, capillary refill)
- Pat Down: (Look for bleeding)

D **Determine Priority**

- Load N' Go: (Life threatening, decreased consciousness)
- Stay N' Play: (all other patients)

Primary Assessment

- Contact 911
- Introduce your self and your level of training (if you have any)
- Receive consent to “treat”/assist

VERY IMPORTANT!

Primary Assessment

Ask the following questions – time is of the essence!

- Are you taking any medications?
- Are you allergic to anything?
- When did you last eat?
- Do you remember what happened?
- Where do you hurt?

Secondary Assessment

- Look into the eyes and assess pupil size
- Assess for bleeding or bruising on the face and at the back of the neck
- Assess for capillary refill
- Assess skin signs (pink warm and dry)
- Palpate the arms and legs for broken bones or bleeding

Assessing for Pulse Rate

- Radial Pulse Rate: place two fingers at the base of the thumb at the wrist joint
- Count how many beats for 20 seconds then multiply by 3



Assessing for Pulse Rate

- Carotid Pulse Rate: place two fingers at the base of the neck/throat
- Count how many beats for 20 seconds then multiply by 3



Resting Pulse Rate Data

- 12 years of age and older = 60-100 beats p/m
- Ages 6 to 12 = 70-120 beats p/m
- Ages 3-6 - 80-140 beats p/m
- Toddler ages 1-3 = 90 to 150 b/m
- Infant = 100 to 160 beats p/m
- Newborn = 120-160 beats p/m

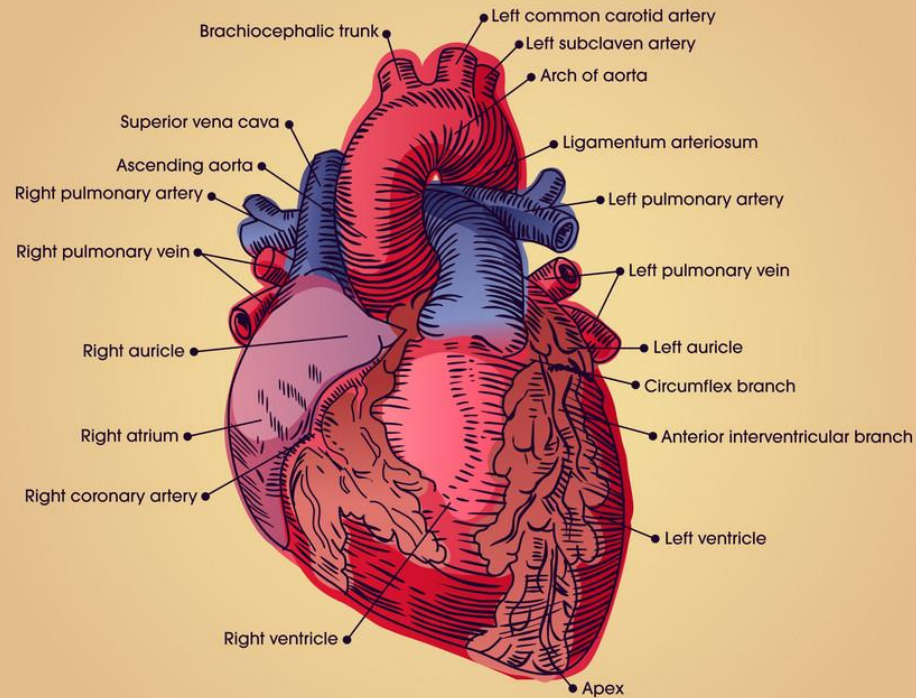
Respiration Rate



Assessing for Respiration Rate

Age	Respiration rate
< 1 year	30 - 40
1 – 2 years	25 - 35
2 – 5 years	25 - 30
5 – 12 years	20 - 25
>12 years	12 - 20

Angina, Heart Attack & Stroke



What is the difference between Angina and a Heart Attack?

- Angina goes away with rest (3 to 5 minutes)
- Heart attack pain is experienced for a long period of time and is usually experienced as a “crushing” feeling”
- Symptoms of a heart attack are different for men and woman
- A woman may experience flu like symptoms

What are the signs and symptoms of a Stroke?

Cincinnati Stroke Scale

- Ask the patient to raise their arms upwards
 - Checking for uncoordinated and/or weakness of the extremities

- Ask the patient to repeat a common phrase
 - Checking for unclear speech patterns

- Ask the patient to smile or show you their teeth
 - Checking for drooping mouth

What are the signs and symptoms of a Stroke?

Cincinnati Prehospital Stroke Scale¹



Facial Droop (have patient smile)

Normal: Both sides of face move equally
Abnormal: One side of face does not move as well



Arm Drift (have patient hold arms out for 10 seconds)

Normal: Both arms move equally or not at all
Abnormal: One arm drifts compared to the other, or does not move at all



Speech (have patient speak a simple sentence)

Normal: Patient uses correct words with no slurring
Abnormal: Slurred or inappropriate words, or mute

What are the signs and symptoms of appendicitis?

Intestinal pain at the base of the stomach

How do you test?

- Ask how long the pain has been present
- What did they last eat and when?
- Ask them to stand on one leg

Rescue Breathing, CPR, and use of an AED

Do you know how?

- What position do you place the head?
- Are compressions adequate as a stand alone treatment?
- How do you work an AED?

How would “You Do” in the event of an emergency?

- When in doubt, call 911
- Stay and monitor the victim
- Document the time the event occurred and what happened
- Stay calm

Your simple knowledge may save a life (-;

Questions?

Concerns?

Comments?

Emergency Medical Techniques 101 for the Novice



**Jeanne Marie Iverson CEO, CPE
M.S. HFE, M.S. OT,
VSI Risk Management & Ergonomics Inc.**

info@vsi-consulting.com

www.vsi-consulting.com

530.919.7979