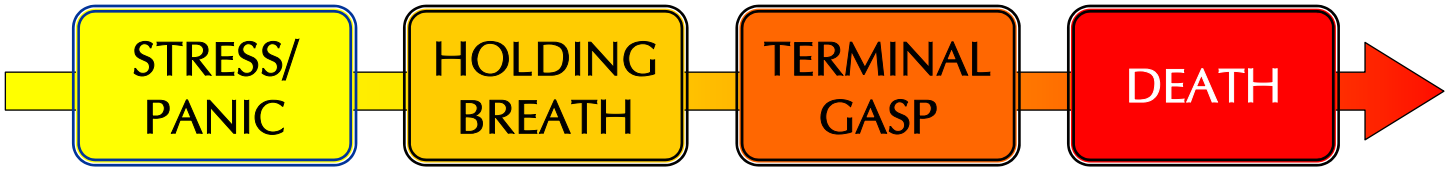
DROWNING PHYSIOLOGY

To drown is to suffocate in water or other fluid
A person can drown in as little as 12-20 seconds



THE 3 TYPES OF DROWNINGS

1) Dry Drowning
   - Occurs when victim attempts to gasp for air when under water.
   - Larynx closes (called a *laryngospasm)* preventing water from entering the airway and lungs,
   - However, this also prevents any oxygen from entering the lungs and thus the body dies.

2) Wet Drowning – *Approximately 90% of all drownings*
   - Victim eventually becomes unconscious from lack of oxygen
   - Water beings to enter the lungs
   - Causes alveoli to collapse and no oxygen to be exchanged.

*** It has been reported that after the initial panic and stress of drowning, the sensation of the drowning is not painful and is almost comforting. A relaxing sense takes over the body as it dies.*

3) Secondary Drowning
   - As lifeguards, this is a **major concern** in every near-drowning person we rescue
   - Is a fluid accumulation in the lungs which can occur between 15 min and 72 hours after a drowning incident
   - Fluid in lungs ruins alveoli and causes problems with breathing and eventually lack of air exchange.
   - This is known as "*Pulmonary Edema*" or swelling of the lungs.

Signs and Symptoms – Coughing
Trouble Breathing
Chest Congestion
Flu-Like Symptoms

In all drowning victims, we must educate all persons about the dangers of secondary drowning. We should also be redirecting their swimming activity to shallow water.

Example "Secondary Drowning Speech"

"Can you take a deep breath for me? Did you breath in any water? You have just had a near-drowning episode. Within the next 15 minutes to 72 hours if you experience any trouble breathing, chest congestion, or flu-like symptoms, you need to contact a doctor or go to the hospital immediately and tell them what happened. Please report back to me before leaving the pool today."