

Volusia County Fire Services Safety Gram



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Heat Stress

Heat stress may cause serious illness from heat cramps, heat exhaustion, and heat stroke. There are measures that a firefighter may use to prevent heat stress illness with physical fitness, hydration and using the rehabilitation policy.

Firefighters prevent heat disorders by improving their level of fitness and become acclimated to the heat. By maintaining aerobic fitness firefighters will have a well-developed circulatory system and increased blood flow. This causes the body to regulate body temperature and lower heart rate. Fit firefighters will adjust twice as fast as an unfit firefighter.

Being aerobically fit is only one of the key elements, drinking plenty of water is another element. At the beginning of the shift, drink extra fluid, such as one to two cups of water, juice, or sports drink to assist you for the hot day ahead. Cooler on board apparatus must be cleaned and refreshed each day with ice and water. While working, take several fluid breaks every hour, drinking at least one quart of fluid. Drink as much as you can during the lunch break. Water is most important during work in the heat. Electrolyte sports drinks will also assist in retaining fluids, electrolytes, and maintaining energy levels.

Battalion commanders shall be aware of the need for hydration during a motor vehicle accident, structure fire and brush fire. Commanders shall consider the circumstances of each incident and make adequate provisions early in the incident for the rest and rehabilitation for all members operating at the scene. The incident commander must call out a second or third alarm to meet the criteria of incident personnel rehabilitation S.O.G. 103.002.

Lieutenants shall maintain an awareness of the condition of each member operating within their span of control and ensure that adequate steps are taken to provide for each member's safety and health. The command structure shall be utilized to request relief and the reassignment of a fatigued crew.

There is no excuse for heat exhaustion, heat stroke, and any injuries due to fatigue on the fire ground.

Refer to Incident Personnel Rehabilitation S.O.G. 103.002.

Common denominators of fire behavior on tragedy fires

There are four major common denominators on fatal and near fatal fires. Such fires often occur:

1. On relatively small fires or deceptively quiet areas of large fires.
2. In relatively light fuels, such as grass, herbs, and light brush.
3. When there is an unexpected shift in wind direction or in wind speed.
4. When fire responds to topographic conditions and runs uphill.

Standard firefighting orders

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing at all times.
3. Base all actions on current and expected behavior of the fire.
4. Identify escape routes and safety zones and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.
7. Maintain prompt communications with your forces, your supervisor and adjoining forces.
8. Give clear instructions and ensure they are understood.
9. Maintain control of your forces at all times.
10. Fight fire aggressively, having provided for safety first.