# City of Greencastle Fire Department

Instruction page:

August 2012

Fire Suppression: FF Survival	Each shift shall review the GFD FF Survival powerpoint on the training computer. Shift Captains shall decide if skills can be done to high heat this month. If not the skills can be caught up in a cooler month. Please document which skills were competed on sign in roster.
EMS: Musculoskeletal Injuries	Review outline below
Safety/Bluecard: Bluecard Scenario	Everyone on all shifts will need to do a bluecard simulation this month. The simulations will require 4 people to conduct for each simulation. Each person on the shift shall do a different simulation. Simulations can be chosen from GFDTraining Youtube simulation channel.
Specialized: Mass Shooting Response	Each shift shall review Mass Shooting video on training computer.
Misc.: Extrication	Review the Vehicle and Machinery outline. If shift can schedule to get vehicles from salvage lot, please conduct hands-on skills that the shift captains determine their shifts need to work on.
Hazmat: Chlorine Response	Review outline below and do hands on skills according to outline.
Officer: Personal Public Image	All officers need to review Personal Public Image outline below.

## **Personnel Public Image**

# When it comes to our department's perception, you never get a second chance to make a first impression. Effective personal PR holds the secret.

Research has proven that 67% of first impressions are accurate. Your image tells the world who you are and where you are going. Your business image says the same. Every email, conversation, and phone call you make creates first impressions that build our department impression.

In person, how you shake hands, make eye contact, conduct yourself in social situations and the clothes you choose to wear contribute to our department brand.

Welcome to the concept of Personnel PR.

Your image is like the weather. People notice when it's extremely good or extremely bad. People shouldn't judge us by our outward appearances, but of course you know they will.

#### GFD Policies that deal with PR:

Section 12 Review this policy.

Section 19 Review this policy.

Section 38 Review this policy.

Section 53 Review this policy.

Section 54 Review this policy.

Section 95 Review this policy.

What image is not tolerated by the Greencastle Fire Department?

- Employees that have a poor hygiene.
- Use of Tobacco products on city vehicles, or public buildings.
- Beards & Goatees
- Out of proper uniform in public.
- Use of profane language in front of children.
- Arguments in public or with the public.
- Slandering the department or the members to the public.
- Answering the telephone rudely.
- Being late to scheduled appointment (Note: Emergencies are an exception)

#### Officers Role:

- Lead by example
- Inform your shift of what expected and what is not tolerated.
- Run your shift with a zero tolerance
- Discipline if necessary

Why does public image matter? What difference does it make if the public image of Firefighters and the Greencastle Fire Department is less than positive?

• Firefighter/ Officers represent the first line of communication about fire department to the general public. That is, you are responsible for conveying information, often through the one on one conversation, about issues. You can also help the public understand the importance of the Fire Department and appreciate its benefits. Image has a lot to do with how effective that communication is in capturing the attention of the public. The more appealing the image, the more likely that people will listen to what is being said.

## **Monthly Bluecard Simulations**

Everyone on all shifts will need to do a bluecard simulation this month.

The simulations will require 4 people to conduct for each simulation.

Each person on the shift shall do a different simulation. Simulations can be chosen from GFDTraining Youtube simulation channel.

The following will describe each position while conducting a simulation.

#### IC:

The IC shall give a bluecard size-up for the simulation they chose. This size up shall be transmitted over handheld radio and the IC shall be the only person in the training room while viewing the simulation. The IC shall also give first due assignments for Engine 2 and Tower 7 and call for additional resources as needed.

#### Engine 2:

This person shall be in another room other than the training room and shall answer on the handheld radio as Engine 2 for the simulation.

#### Tower 7:

This person shall be in another room other than the training room and shall answer on the handheld radio as Tower 7 for the simulation.

#### Scribe:

This person shall act as Dispatch on handheld radio and shall also write down the initial IC action plan and tactics for that simulation.

## **Greencastle Fire Department Strategy and Tactics Work Sheet**

# **Incident Size-up & Action Plan worksheet**

Student Name	Incident Title	
Date		

Initial status radio report –
List all the critical factors that you noticed:
List all the critical factors that you noticed.

## Greencastle Fire Department Strategy and Tactics Work Sheet

Describe the following:	Answer:
Initial Hoseline size and placement	
Resources needed?	
Which MABAS box?	
Search? If so how and where would you	
began	
Where would you position Ondeck?	
Is Ventilation needed? If so what kind	
and where?	
Any Special considerations?	
Any special outside agencies required?	

## Musculoskeletal Injuries

## Objectives:

- 1. Musculoskeletal System Review
- 2. Injuries to Bones and Joints
- 3. Principles of Splinting
- 4. All shifts practice Splinting

### Introduction:

- Injuries to muscles, bones, and joints are a common emergency seen by EMT.
- The severity of the injuries ranges from the minor to the life threatening.
- In any instance, however, your treatment goals remain the same: to provide appropriate immobilization measures, and prevent permanent disability from improper handling of the patient or injury.

### 1) Musculoskeletal System Review

- The musculoskeletal system is comprised of the muscles and bones of the body that, in concert, serve important functions:
  - Provide the body shape
  - Provide the internal structures with protection
  - Provide for movement
- The Muscles
  - Muscles, as a result of trauma, may become torn, crushed, cut, bruised, etc.
  - Muscles injured tend to be weak, tender, swollen, and painful.
  - Three types of muscles exist:
  - Skeletal
  - Smooth
  - Cardiac
- Tendons and Ligaments
  - Tendons connect muscle to bone.
  - Ligaments connect bone to bone.
- Skeletal System
  - Provides shape and protective functions.
  - Allows movement by way of joints.
  - Commonly injured due to traumatic forces.
  - As a general rule, however, broken bones create graphic injuries, not so much deadly injuries. So despite the severity of angulation that an extremity may show, do not skip over your initial assessment or evaluation of the ABCs.

2) Injuries to Bones and Joints:

- Types of Musculoskeletal Injuries
  - Fracture
    - A break in the continuity of a bone
  - Strain
    - Injury to a muscle or muscle and tendon from overstretching
  - Sprain
    - Injury to a joint with possible damage to or tearing of ligaments
  - Dislocation
    - Displacement of a bone from its normal position in a joint

Mechanism of Injury

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- The MOI can oftentimes tell you the forces applied to the body and the most probable types of injuries sustained.
- Direct force is when the injury is created by a direct blow.
- Indirect force is when the force impacts one end of a limb, but results in an injury at a distance from impact.
- Twisting force is when a portion of the body stays stationary while the rest twists.
- Critical Fractures: Femur and Pelvis
  - As mentioned previously, broken bones are not really fatal, unless they are of a specific type. Femur and pelvic fractures are two of those types.
  - Due to the large size of these structures, the nearby blood vessels may also be traumatized from the same insult, resulting in life threatening hemorrhage (internal or external).
    - Both a femur and pelvic fracture could result in as much as 2,000 ml of blood loss into the tissues.
- Assessment: Bone or Joint Injuries
  - Scene Size-Up and Initial Assessment
    - Ensure you've taken BSI precautions.
    - Try to ascertain the MOI.
    - Since this is a traumatic event, evaluate for the need of additional resources.
    - Rapidly (but thoroughly) assess the mental status, the quality of the airway, breathing, and circulatory systems.
    - If there is an acute change in mental status, or deficits to the airway, breathing, or circulation, the patient should be treated as a high priority.
  - Focused History and Physical Exam
    - If the patient is unresponsive, several injuries are present, or a significant MOI occurred, conduct a rapid trauma assessment followed by vitals and the SAMPLE history.

- If the patient is otherwise stable, conduct a focused physical exam, and then obtain vitals and the SAMPLE information.
- Any painful, swollen, deformed, or tender extremity should be immobilized as a precautionary measure.
- Emergency Care: Bone and Joint Injuries
  - Irrespective of the bone or joint injury, if you find any disturbance or loss of function to the airway, breathing, or circulatory systems – provide appropriate treatment to that first.
    - Oxygen via NRB or PPV, airway maintenance either manually or mechanically, bleeding control, etc.
    - Rapidly transport if the patient is a priority.
  - Once you get to the bone or joint injury itself, follow these guidelines:
    - Use proper BSI equipment.
    - Ensure oxygen is already applied.
    - Maintain inline immobilization if warranted.
    - Splint bone and joint injuries, being sure to check PMS both prior to and after the procedure.
    - Apply cold packs to the injured area.
    - Elevate the injury if feasible.
    - Transport and continue the reassessment en route.

## 3) Principles of Splinting

### Splint

- Any device used to immobilize a body part is called a splint, and it can be soft or rigid.
- Remember that immobilization of an injury could occur by many methods.
   For example, a seated spinal board is for the sitting patient. However, when applied "upside down," the chest portion can help immobilize the pelvis while the cervical portion is secured to the lower extremities. Or, the PASG could be used for pelvic injuries....or the long back board
- Splinting occurs for two reasons:
  - Prevent movements of bone fragments, joints, bone ends, etc.
  - Reduction of pain and minimize complications of bone and joint injuries
    - Nerve damage, muscle damage, perfusion deficits, paralysis, pain upon movement of the patient, etc.
    - Since the goal of splinting is to immobilize, whatever method you use for whatever injury, all it must do is simply immobilize.
- General Rules of Splinting
  - Take manual stabilization and assess distal PMS.
  - Cut away clothing to expose the injury site.
  - Place a sterile dressing over open wound if present.
  - Align the extremity if it is NOT a joint injury.
  - Pad the splint for comfort. Align splints so that both the joint above and below are immobilized.

- After securing the splinting material, reassess distal PMS.
- Hazards of Improper Splinting
  - Despite the benefits of splinting, they may also cause complications if done incorrectly:
    - Compression of nerve, tissues, and blood vessels
    - Delay in transporting a critical patient for immobilization procedures
    - Reduction in distal circulation
    - Aggravation bone or joint injuries by still allowing movement
    - Aggravation tissue, blood vessel, muscle, or nerve injuries by still allowing movement
- Splinting Long Bone Injuries
  - Manually stabilize the injury.
  - Assess distal PMS function.
  - Align the injury if PMS is absent, cyanosis is present, or if severely angulated.
  - Measure and prepare the splint.
  - Secure the entire injury (including the joint above and below).
  - Place the hand or foot in the position of function.
  - Reassess the PMS function.
- Splinting Joint Injuries
  - Joint injuries present similar to long bone injuries with the possibility of the following signs:
    - "Locking" of the joint.
    - Abnormal appearance of the joint. One useful measure is comparing one joint against the opposite joint. For example, comparing knee joints and looking for swelling, discoloration, and abnormalities to the shape.
    - You usually immobilize the joint in the position found. If, however, there is a lack of PMS distal to the joint, attempt one range of motion change, then immobilize.
    - Manually immobilize the joint in the position found.
    - Assess distal PMS.
    - Apply the splint of choice, ensuring that you provide immobilization above and below the joint.
    - Upon completion, reassess PMS distal to the injury site.

4) All shifts practice Splinting.

#### 6-1 Vehicle and Machinery:

6-1.1 Recognize the need for vehicle and machinery search and rescue.

6-1.2 Identify the resources necessary to conduct safe and effective operations.

- 6-1.3 Identify the emergency response system for vehicle and machinery incidents.
- 6-1.4 Describe the need for control at the scene of a vehicle or machinery incident.
- 6-1.5 Identify the general hazards associated with vehicle and machinery rescues.

6-1.6 Identify crowd control procedures.

Vehicle extrication and machinery rescue can occur any where in the United States. We can have entrapment of arms or hands in punch presses in rural manufacture plants. Or we can have multiple car accidents with entangled bodies on any expressway in any major city. Fire fighters will handle a great majority of these incidents whether they are volunteer, paid on call, or full time.

When rescue personnel arrive on the scene of these accidents, they must survey the site for a safe and workable condition. **Rescuer safety is first priority**. The first item to look at is the size up of the scene. There are many ideas that can encompass size up but we will be looking at three major areas -, scene conditions patient injuries and. environmental conditions

Scene conditions are the first subject of size up that will be supported. The major areas are listed below:

The Scene survey will be a six sided approach to an accident: top, bottom, front, back, left side and right side. We also use inside and outside circle referencing areas of concern for safety





- 1. Stabilization is the first tactical objective to any accident of a machine or vehicle. Stabilization will maximize the contact surface between the car and the ground or provide support the key points in the machinery. It should also prevent further injury to the patient and safety for the rescue personnel.
- 2. Hazardous materials is another area that should be addressed for rescuer's safety. Hazardous materials should be identified, addressed or removed before any rescue personnel are allowed to continue the rescue.
- 3. Electrical problems can exist in many ways:
  - a. Utilities if the power lines are down, they could be in the immediate area or could spread to electrify metal fences, guard rails, downed phone lines or cable lines. If anyone comes in contact with these lines, it could be fatal. So let the power company handle the problem.
  - b. Vehicle battery the location of the batteries in cars could be under the hood (high or low) -hidden, under the back seat, or in the trunk. The power cable will run along or in the rocker panel. On trucks, the batteries will be in the battery box, under the hood or in the wheel wells.
  - c. Machinery power should be turned off at the main electrical panel with a lock out/ tag out equipment applied.
- 4. Fire is a large concern in vehicle accidents because of the fuel that is being used. The use of a charged hose line at the scene of an extrication should be used to protect the rescue personnel.
- 5. Crowd control should be addressed by the police department The crowds could restrict or hamper the rescuer's activities thus needing a longer time to extricate the patient(s).

The police should also control the traffic around an accident. Consider using the fire apparatus for blocking traffic.





6. Hydraulic shocks, absorbing bumpers, hatch back, hood pistons and hydraulic suspension systems that are found on cars, vans and trucks can be very explosive under a fire condition. Bumpers have been known to be launched as far as 100 feet or could wrap around the vehicle

The patient's injuries will occur from the mechanism that will come in contact with the body. The mechanism of injury can come from a windshield, air bag, steering wheel, dashboard, "A" or "B" posts, rear view mirror, door, roof, auger, conveyor belt, etc. The injury of the patient could be external and/ or internal. The possible external injuries that the EMS personnel may see are injuries to the head, neck, shoulder, arm, hand, back, hip, leg, foot, etc.. Internal injuries can involve the organs, spine, brain, blood vessels, etc.. The damage to these body parts can be bruises, lacerations, fractures, amputation, etc.

Environmental conditions deal with the weather. We can have extreme heat and cold situations that may affect the rescue operation and our personnel. These conditions can also create added problems for the patients we are trying to disentangle. Rain, sleet and snow are other dilemmas that we may face. The ability for us to respond and work at the scene is dependent upon traction of the work surface. In several conditions, the patient's state may deteriorate at a faster pace. The last concern is darkness. The rescuer acknowledges the problems and will react in a faster manner. Whereas, in a low light or dark condition, rescuers are restricted or handicapped to the amount of lighting provided.

Depending of the type of emergency system that can be found in the region, there could be as many as four agencies that may responding to the incident. In some systems, all of the following could be under one department. But, all of the following must be addressed at any accident.

1. The police are responsible for maintaining crowd control, traffic control and preserving the scene for reconstruction and investigation.



- 2. The fire department has the responsibility for:
  - Maintaining scene safety by extinguishing fires, preventing any fires from starting and handling any spills or leaks of hazardous materials.
  - b. Maintaining vehicle safety by checking the fuel system and handling any fuel spills or leaks, checking the electrical system and removing the power to the vehicle or machinery, and assist the EMS and /or the rescue personnel.
- 3. The emergency medical services has the responsibility for:
  - a. Patient assessment of medical problems
  - b. Patient packaging for removal
  - c. Assess the patient's disentanglement and extrication needs
  - d. Patient removal and handling
  - e. Transportation of the patient
- 4. The extrication rescue personnel are responsible for:
  - a. Vehicle or machinery stabilization
  - b. Create a safe access for the EMS personnel
  - c. Initiate safe disentanglement procedures/guidelines as necessary for all patients
  - d. Assist the EMS personnel with removal of the patient

There are many possible hazards that are found at the scene of vehicle or machinery accidents. The following are the most pronounced risks.

- Air bag systems are found in most vehicles. These systems are marked with the following logos: SRS, SIR, Air Bags, Side Air Bags, Knee Impact Bag, Head Impact Bag, Head Curtain Bag, etc.
  - a) Electrical drain time after the battery power has been disconnected could range from 30 seconds to 30 minutes.
  - b) For safety of the rescue personnel and the patient, the distance of 5" for side air bag, 10" for driver's air bag and 18" for passenger air bag should be maintained away form the bags.



- 2. There are four major types of fuels used in vehicles.
  - a) <u>Gasoline</u> is the most used fuel found in most vehicles. Gasoline is a flammable fuel.
  - b) <u>Diesel fuel systems</u> is very popular in the trucking and farming industry. Diesel is a combustible fuel and will often have a large quantity on board the vehicle.
  - c) <u>Compressed natural gas or liquefied</u> <u>petroleum gas systems</u> are not too widely used. These systems may be found in forklift trucks and natural gas company vehicles. The trucks and cars will be marked to indicate that it is powered by that gas. This type of system will have heavy, high pressure tanks on the vehicle.
  - <u>Electrical cars</u> are becoming more common. The largest concern for electrical cars is the presence of high voltage batteries and acid.
- 3. Hydraulic shocks, absorbing bumpers, hatch back, hood pistons and hydraulic suspension systems that are found on cars, vans and trucks can be very explosive under a fire condition. Bumpers have been known to be launched as far as 100 feet or could wrap around the vehicle.
- 4. Vehicle battery the location of the batteries in cars could be under the hood (high or low -hidden), under the back seat, or in the trunk. The power cable will run along or in the rocker panel. On trucks, the batteries will be in the battery box, under the hood or in the wheel wells.
- 5. The seat belt pretensioner is a device that will draw the person back into the seat on a frontal accident. The location of the pretensioners ( if equipped ) will be in one of the following places:
  - a) B post (low or mid point)
  - b) C post (low)
  - c) Inner front or rear seat buckler area







- 6. In the machinery rescue area, the use of gears, chains, pulleys, augers and conveyor belts are very extensive. The use of these items in manufacturing, farming, material movement, etc. are quite common. There are some basic items to be aware of:
  - a) The power source could be electrical, motor, air driven or hydraulic.
  - b) This equipment is very rugged in its construction.
  - c) There could be a chemical hazard because of the equipment's usage.
  - d) The accident could be in a remote area.
  - e) There could be a time delay getting to the scene.
  - f) Great caution should be used because of stored potential energy or full cycle machinery which may continue to move or complete cycle after power is removed.
  - g) When shutting down machinery, the lock out/ tag out procedure should be used.
  - **h**) When disassembling of equipment is needed, the assistance of the maintenance man would be of great help.

### **Initial Company Actions**

- 1) The scene protection at an auto accident can be achieved by utilizing the apparatus in controlling the traffic. It may also be achieved by using traffic cones, flares and other devices. When a machinery accident occurs, the rescuer can control the movement of personnel by traffic cones, caution tape, locking doors, etc.
- 2) The access to the vehicle involved in an accident can be as simple as opening the door with the car's handle. More entailed equipment should be used by trained personnel. Access into machinery can be as simple as unscrewing an access panel.
- 3) Stabilization of a vehicle can be achieved by the rescuers by putting the vehicle in park or apply the parking brake. The use of basic cribbing can also achieve stabilization. When dealing with machinery, just shutting off the power may not stabilize the equipment.





#### Scene Control at an Incident

- 1) Traffic needs to be controlled for the safety of the rescue personnel. Crowds could restrict the rescuers' activities at the scene
- 2) Machine can be controlled in two ways: Electrical power can be shut down and locked out at the main electrical box and mechanical power (hydraulic, pneumatic or motor) can be shut down and locked out.

**CAUTION:** Beware of stored potential energy or full cycle machinery

**EXAMPLE:** Machinery that continues to move after power is removed or must complete a full cycle or operation.

#### Vehicles & Machinery Summary

- Recognize the need for vehicle and machinery search and rescue.
- Identify the resources necessary to conduct safe and effective operations.
- Identify the emergency response system for vehicle and machinery incidents.
- Describe the need for control at the scene of a vehicle or machinery incident.
- Identify the general hazards associated with vehicle and machinery rescues.
- Identify crowd control procedures.

5120	–up
<ul> <li>Establish need for Techni</li> </ul>	ical Rescue
<ul> <li>Identify number and loca</li> <li>Establish scene control</li> </ul>	ation of patients
Establish scene control     Establish traffic control     Rescuer safety	FIRE LINE DO NOT CROSS
Crowd control	
<ul> <li>Crowd control</li> <li>Crowds restrict rescuers' a</li> <li>Vorify machines rendered</li> </ul>	activities
<ul> <li>Crowd control         <ul> <li>Crowds restrict rescuers' a</li> <li>Verify machines rendered             <ul></ul></li></ul></li></ul>	activities d safe

## Recognize the need for vehicle and machinery search and rescue.

- Identify the resources necessary to conduct safe and effective operations.
- Identify the emergency response system for vehicle and machinery incidents.

### Vehicle & Machinery Summary

- Describe the need for site control and scene management at vehicle or machinery incident.
- Identify the general hazards associated with vehicle and machinery rescues.
- Identify traffic / crowd control
- procedures.

## Chlorine Response

Objectives: 1) All shifts need to watch Hazchem #4

2) All shifts need to go through the A,B,C Chlorine Kits as their hands on skills of this subject.