



How to respond to farm injuries

Late one summer afternoon, a 28-year-old dairy farmer entered a 10-foot-deep manure pit to replace a shear pin on an agitator shaft. While he was climbing out, he was overcome and fell onto the pit floor. The man's 15-year-old nephew saw what had happened, climbed into the pit, and also collapsed. One by one, others entered the pit to help—the boy's father, his cousin, and his grandfather who owned the farm—and all were overcome.

Finally, the owner of a local farm implement business and two workers rescued victims with a rope: they did not go into the pit. The emergency rescue squad arrived 20 minutes after the tragedy began. All five family members died.

The incident described above from another state shows how untrained and inexperienced rescuers became victims. It also shows the need to know what to do in an emergency.

Most likely, a family member or another farm worker will be first at the scene. If you work or live on a farm, you also could be a first responder and will need to make life-saving decisions that will not put you or the injured victim in further danger.

First response is critical in farm-related injuries. Such injuries often occur in isolated areas and may involve entrapment by farm machinery or in structures that are difficult to enter. A telephone may not be nearby, and the first responder may be alone. Tremendous stress can cause indecisiveness, delay, and incorrect decisions about appropriate action to take.

First responders

The first rule is to keep calm. Fear and anxiety are normal reactions when a severely injured person, possibly a family member, is discovered. Mental preparation and training can help the first responder overcome these emotions and act rationally.

Your primary concerns are to: 1) get professional help for the injured person by activating emergency medical services (EMS); 2) make sure the victim and you are not in further danger, and 3) provide care until EMS arrive. The appropriate action isn't always apparent, and the first responder sometimes must make difficult choices.

Activate EMS

Should you help the victim first or contact EMS? It depends on several factors, such as whether the injured person is breathing. If breathing stops, irreversible brain damage could occur in four to six minutes. You may need to administer cardiopulmonary resuscitation (CPR) before leaving the scene.

If you can, however, activate EMS as soon as possible. A general rule is: the sooner an individual receives advanced medical care, the greater chance of survival. You may quickly get help by flagging down a passing motorist, or sending someone else.

When you call emergency personnel, never hang up until the dispatcher or operator tells you to do so. The dispatcher may start the emergency response procedure and come back for more information.

Provide the following information: 1) the location of the injury (use accurate mileage distances and landmarks that are visible at night and in snow); 2) your name and

Emergency response

How much do you know ?

Do you know what to do in an emergency? Review the basics with this quiz.

1. If you discover an injury, your job is to get professional medical treatment to the victim as soon as possible. True or false?
2. When you dial 911, you should:
 - a) provide details and wait for someone to tell you to hang up.
 - b) quickly give details and return to the scene.
3. When responding to an injury with a power take-off (PTO) unit, always shut off the tractor but never disengage the PTO. True or false?
4. If you can't shut off power after a possible electrocution, your only choice is to:
 - a) call the power company.
 - b) quickly pull the victim away from danger.
 - c) use a pole and push the victim to safety.

See answers on back.

telephone number from which you are calling; 3) nature of the injury; 4) the number of victims and conditions; 5) type of aid that was or can be given; 6) whether someone will meet EMS at a remote location, and 7) any special conditions that might hinder rescue efforts, such as a possible gas spill, fire, or electrical wires.

Post detailed directions to your farm at all telephones. Even if you have a “911” system, post numbers for the poison control center and power company. Make sure all family members, especially children, can tell others how to get to your farm.

Return to the scene

After you call emergency personnel, or have decided this was not the first step, control hazards at the scene that could harm you or cause further harm to the injured person. Typical hazards include uncontrolled movement of machinery, fire and explosions, spills of hot liquids or chemicals, exposed electrical wires, and toxic fumes.

Here are general concerns for common types of farm injury situations:

- **Manure storage facilities.** Multiple deaths are common in underground pits because deadly gases can be present in the enclosed area. Never enter a pit without a self-contained breathing apparatus. Never lower a fan into an underground storage area for added ventilation because sparks from the motor could cause methane gas to explode.

- **Power take-off equipment.** Is the tractor shut off? Always turn off the ignition key on the tractor and shut off the fuel on a diesel tractor. Do not disengage the PTO. When tension is released, a PTO can move and cause additional injury to a victim. Remove clothes only if they restrict breathing.

For more information

This publication did not address the technical aspects of emergency response. Adult family members and full-time farm workers should receive training in first aid and CPR. To inquire about classes, contact the American Red Cross, American Heart Association, or local fire departments and hospitals. Two other helpful publications include:

- *First on the Scene*, NRAES-12, available at the Extension Online Store, <https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=3379>. Fee for publication.

- *NIOSH Alert: Preventing Deaths of Farm Workers in Manure Pits*, NIOSH #90-103, at www.cdc.gov/niosh/docs/90-103/.

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- **Tractor overturns.** Is the tractor stable? An overturned tractor may roll down a slope; on level ground it may be unstable due to a hydraulic system failure. Always approach a tractor from the uphill side where you may still be able to shut off the tractor, eliminate a fire hazard, or help the victim.

- **Grain bins.** Is power to the auger turned off? It takes less than 15 seconds for someone to be buried in grain. If the person is in grain above the knees, do not use a rope because further injuries could result. Ventilation fans will help the victim get air, but vibrations could collapse a grain bridge.

- **Electrocution.** Is the power source disconnected? Never touch an electrocution victim unless power is turned off. Do not try to drag the person to safety with a stick or board because you also risk electrocution.

Wait for EMS

Once you've contacted EMS and done all you can to prevent further danger, provide first aid until emergency personnel arrive. Never move someone with a spinal injury unless in immediate danger because it could result in death or paralysis. Situations that could cause spinal injury include entanglement or entrapment in machinery, being thrown from equipment, or long falls.

The best you can do in an emergency is to remain calm and, if the injured person is conscious, provide assurance. The key is being prepared as a first responder so that you can think rationally and make critical choices to improve the injured person's chances for survival.

Prepared by Charles Schwab, extension safety specialist. Portions adapted from *First on the Scene*, NRAES-12.

Emergency response

What can you do?

What you do the first few minutes after a farm injury can mean the difference between life and death. To prepare you and your family for such emergencies, follow these tips:

- Post emergency information at every telephone.
- Practice making emergency calls.
- Enroll in first aid and CPR classes.
- Discuss possible actions to take if you find someone:
 - entangled in a PTO;
 - lying in a manure pit;
 - pinned underneath a tractor;
 - who possibly has been electrocuted;
 - caught inside grain.
- Place a first aid kit in each tractor, the home, and workshop.

Answers to quiz: 1-True; 2-a; 3-True; 4-a.



Safe Farm is an Iowa State University Extension and Outreach project helping to make Iowa farms a safer place to work and live.

For more safety information, check the web at www.abe.iastate.edu.