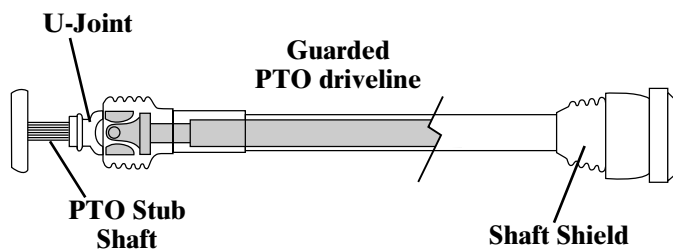


# Know the Dangers of a PTO

Editor's note: Our Tailgate Training Tip Sheets are [available in Spanish at www.gemplers.com](http://www.gemplers.com).

## KEY POINTS:

- PTOs are dangerous because the shafts rotate at a high speed.
- Most PTO accidents occur when people get too close to a rotating shaft.
- Guarding for PTO drivelines helps prevent PTO entanglement.



**Note to trainer:** Follow this script or use it to help guide you through a 10- to 15-minute tailgate training session for your ag/hort workers. You may photocopy this sheet for your employees' personal use. However, it may not be published or sold.

Hold your training session in an area with enough room to gather around a tractor and PTO-driven machine.

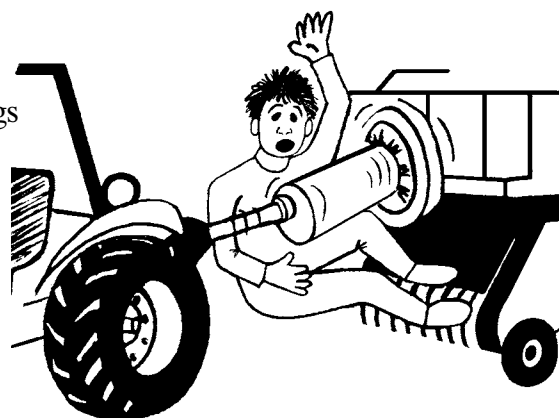
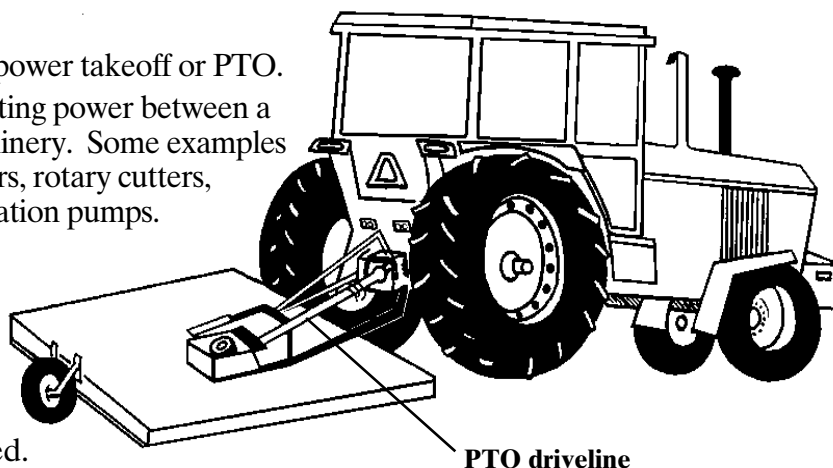
## What is a power takeoff?

- An important part of the tractor is the power takeoff or PTO.
- The PTO provides a means of transmitting power between a tractor and another piece of farm machinery. Some examples of PTO-driven equipment are hay balers, rotary cutters, weed mowers, forage blowers and irrigation pumps.
- This is a PTO.

**Note to trainer:** Show trainees a PTO and tell them which equipment is powered by it on your operation.

## Why PTOs are dangerous

- PTO shafts rotate at a very high speed. They make 540 or 1,000 revolutions per minute when they are at normal operating speed.
- Most PTO accidents happen when people get too close to the rotating shaft, especially if guarding has been removed or is damaged.
- Hair and loose clothing, such as a pant leg or the drawstrings from hooded sweatshirts or jackets, can get caught on the shaft and wrap around it.
- The chances of that happening increase if the shaft has small nicks, dried mud or manure on it.
- Your hair or clothing could also catch in the U-joints or other fastening devices and wrap you around the PTO shaft.
- Once your hair or clothing is caught on a PTO shaft, it is nearly impossible to escape. The more you pull away, the tighter the wrap becomes.
- Within fractions of a second, your hair or clothing may be torn off or your body may wrap around the spinning shaft.

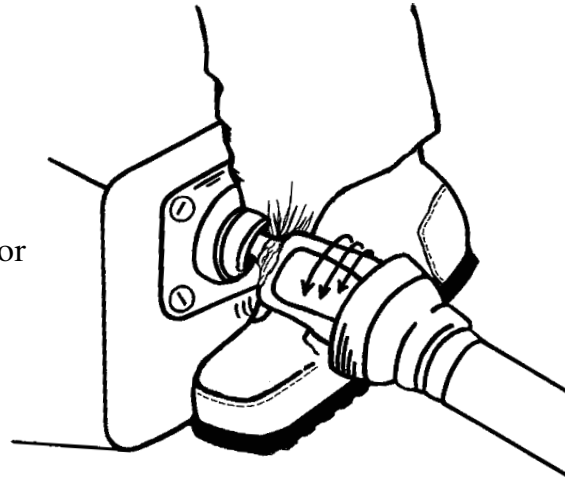


See our [full line of safety supplies](#), including respirators, eye and ear protection, coveralls, first aid and more.

# Know the Dangers of a PTO

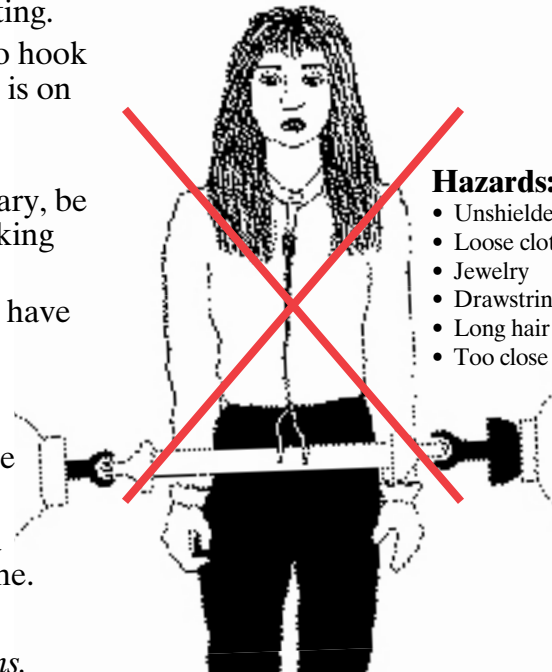
## Safety devices will help

- PTO shields cover the shaft to help prevent you from becoming entangled.
  - Check to see if the equipment you are using has shields over all parts of the PTO shaft.
- Note to trainer: Show trainees any shields on the PTO.*
- Don't assume a guard or shield will automatically prevent an accident. Shields may be missing, damaged or cover only part of the PTO driveline.
  - Immediately report any problems to your supervisor and do not operate the machinery without proper guarding in place.



## How you can protect yourself

1. When you finish your task, turn off the PTO before getting off the tractor. Stop the tractor and take the key.
2. Don't go near the PTO driveline until all parts have stopped rotating.
3. Don't check, adjust, unplug or grease any PTO-powered equipment while the PTO shaft is rotating.
4. Check the manufacturer's instructions on how to hook up an implement to the PTO. Make sure no one is on the tractor or near the equipment while you are hooking it up.
5. If a PTO is operating while the tractor is stationary, be sure the tractor is in neutral or park and the parking brake is on.
6. Don't wear loose clothing around a PTO. If you have long hair, put it up or tuck it under a hat before operating the machinery.
7. Every time you hook up an implement to your tractor's PTO, check to make sure the shields are in place and are properly functioning.
8. If someone is working alone with PTO-powered machinery, check on the person from time to time.



### Hazards:

- Unshielded U-joint
- Loose clothing
- Jewelry
- Drawstring
- Long hair
- Too close to PTO

## Are there any questions?

*Note to trainer: Take time to answer trainees' questions. Then review the PTO Do's and Don'ts.*

## PTO DO'S AND DON'TS

### DO:

- Stay a safe distance away from any PTO-powered equipment.
- Keep PTO shields on at all times.
- Check for missing or damaged shields before hooking up the PTO.

### DON'T:

- Wear loose clothing or jewelry when operating a PTO.
- Lean over, step across or crawl under a PTO when it is operating.
- Unplug or adjust any PTO-powered machinery while the PTO shaft is rotating.

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