



## Safety Tips for Farming with Upper Extremity (Arm) Limitations<sup>1</sup>

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Arm and hand problems include: limitations that have resulted in decreased strength or function due to finger amputations; hand amputations; weakness; below-elbow or above-elbow amputations; or tendon, muscle, nerve, or joint damage. There are often risks of further injury due to: decreased padding or scar tissue around a stump that may not tolerate usual bumping or brushing around objects such as farm machinery or buildings; prosthetic entanglements; using the other arm or hand to break a fall or perform a hazardous task; using the non-affected and less coordinated hand; susceptibility to frostbite and areas where there has been nerve damage or decreased circulation. The following is a list of safety tips that have been provided by farmers with upper extremity impairments:

1. For finger and hand injuries with decreased tissue or padding around bony prominence, wear a custom-made padded glove to prevent skin from breaking and potential infection from bumping into objects.
2. Pocket hand warmers can be used for finger and hand injuries that have decreased circulation to prevent possible frostbite.

3. Although nails can be started using one hand, you risk smashing a finger or receiving a blood-blister. One-handed nail starters might be considered.
4. When climbing with a prosthetic device, it is important not to rely on the terminal device when grasping an overhead rung on a ladder. It may be safer to wrap the forearm of your prosthesis around the outside of the ladder.
5. When working around livestock be careful not to catch onto chains, collars, ropes, halters, or other materials attached to livestock. If you use a Prehensile hand, use the far most grip on this terminal device when grasping a cow's chain so that you can let go more easily.
6. A quick-release chest harness might be useful for those situations in which a prosthetic device may get caught onto something. A chest harness allows you to pull a velcro strap to release the prosthesis quickly from the stump. A chest harness may not be appropriate for everyone. A prosthetist should be consulted.

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1. The information shared is based on data gathered by the Easter Seal Society of Iowa's Farm Family Rehabilitation Management (FaRM) Program through financial support from the Injury Prevention Research Center at the University of Iowa Grant #R49\CCR703640-02 funded by the Center for Disease Control. No scientific research has been conducted to determine if the above tips or suggestions are safe or effective. The information shared is simply ideas shared by farmers affected by disabilities of the staff at the FaRM Program. For more information or clarification contact the FaRM Program at (515) 289-1933 or submit comments or questions to P. O. Box 4002, Des Moines, Iowa, 50333.

7. When using an upper-extremity prosthetic device with an internal elbow lock, be cautious in lifting and carrying objects that exceed the strength of the elbow lock. Consult with a prosthetist on appropriate weight that could be carried. An external elbow lock made out of durable material such as stainless steel might be considered for heavier lifting and carrying. Keep in mind that a heavy-duty external elbow lock will add more weight to the prosthesis.

8. Do not touch electric fences with the terminal device of a prosthesis. The electrical current may travel the terminal device through the metal cable and you will experience a shock to the back or shoulder.

9. To prevent frostbite to the stump of a below-elbow amputation, the following are some tips that might help: Add additional stump socks to provide more insulation. Obtain stump socks that lift perspiration away from the skin. Tube socks can be added to the outside of the socket to provide more insulation. Frequent work breaks should be considered so that you can warm up the stump. A heater or electric hair dryer may be useful in the farm shop to warm the stump in emergencies. Caution should be taken to ensure that not too much heat is applied due to the potential of burns resulting from decreased sensation in the stump. A muff might also be used to keep the stump warm while performing tasks in which the arm is not needed.

10. Be careful to compensate for lost gripping ability when performing tasks with your nonaffected hand. Jigs, fixtures, clamps, and vice grips should be used to compensate for the loss of strength or ability.

11. Use one-handed tools and other labor-saving devices to help prevent additional injuries to the affected limb as well as potential injuries to your other hand or arm.

12. For bilateral arm amputations additional steps made out of non-slip material, wider steps, and hand-holds could be added to farm machinery to make mounting and dismounting safer due to decreased balance and grasping ability.

13. Special caution should be taken when performing tasks that could result in your prosthesis getting caught. These tasks include throwing bales of hay, climbing, catching livestock, and working around power machinery.

14. Any adaptations or modifications intended for use by an individual with a disability should be used by that individual only. Use of a modification or adaptation by another individual could result in an injury.

### **FOR MORE INFORMATION**

For more information on general farm safety, contact: Kansas State University Research and Extension Agricultural Safety and Health Program at 785-532-5813. To contact Kansas AgrAbility call 1-800-526-3648 (1-800-KAN DO IT)