



## Preventing Early Onset Osteoarthritis in Farm/Ranch Youth

There are 1.2 million youth under 20 living on U.S. farms and ranches. Approximately 590,000 of these youth do some type of work on the farm. In addition, it is estimated that 307,000 youth are hired to work on farms. About 100,000 youth suffer some form of injury each year ranging from a simple sprain to amputation. As the average age of the American farmer/rancher is approaching 57 years of age, there are tasks that are becoming more difficult to perform, so youth workers are asked to perform these tasks. The peak age for accidents is 13 to 14 years of age.

**Many agricultural youth workers do not know they may be at risk for developing OSTEOARTHRITIS.**

Osteoarthritis is caused by 'wear and tear' on a joint. Cartilage is the firm, rubbery tissue that cushions the bones at the joints, and allows bones to glide over one another. Cartilage can break down and wear away. As a result, the bones rub together causing pain, swelling, and stiffness. Bony spurs or extra bone may form around the joint, and the ligaments and muscles around the hip become weaker and stiffer.

**What are common causes of early onset osteoarthritis in youth?**

- Sports or work injury
- Repetitive stress to joints

- Excessive weight
- Unbalanced diet
- Infection to joint
- Occupational hazards
- Some high-level sports

**What puts youth at risk?**

- Lack of experience
- Unfamiliarity with the work task
- Enthusiasm sometimes outweighs judgment
- Risk taking (believe they are invincible)
- Driven to prove themselves to parents and adults
- Physically not strong enough to perform the task
- Reluctant to ask questions (don't want to appear "dumb")

**What are farm or ranch tasks that can lead to joint stress?**



- driving tractors, hitching implements, vibrating machinery
- throwing/stacking hay
- riding horses, roping
- working on trucks and machinery
- milking cows
- feeding livestock, carrying heavy buckets
- building/fixing fence (using post hole drivers)



### **What are some modifications that can reduce joint pain (no matter the age)?**

- Air suspension seats/shock absorbing seats
- Extended ladder steps for entering tractors
- Shoulder slings, utility carts, ergonomic tools
- Know livestock behavior
- Clear working areas and pathways, chutes
- Anti-fatigue mats, proper footwear
- Proper lifting and mounting technique

It is important for youth to stay at their recommended weight to lessen the chance of osteoarthritis in the weight-bearing joints of the hips and knees. Exercise is also advised to keep the muscles around the joints strong, especially the thigh muscles that support the knees. This lessens the chance of injury or pain from overuse. Finally, “watch and learn” ...observe the difficulty parents or grandparents may have with regular chores and adopt practices that will reduce repetitive movements while still young.

### **For more information**

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