

# Farming for Life: Using body mechanics & other tools to do what you love longer

October 24, 2012 By: Sanne Kure-Jensen



Working carefully, taking care of your bones and muscles, helps extend the years you can keep doing what you love: farming, gardening and living well. “Good body mechanics are critical,” said Ann Adams & Liz Brensinger, from Green Heron Tools, in a webinar hosted by the UVM Extension New Farmer Project. Make a conscious effort in the way you move, lift and shovel to minimize injuries and pain. Adams and Brensinger shared their insights into tool choices and ergonomics.

Musculoskeletal disorders (MSDs) are injuries where muscles, joints, tendons, ligaments or bones are damaged by stretching farther or working harder than their capacity. MSDs are the leading cause of disabilities and pain for people in their working years. 150% more MSDs are reported in production agriculture than in American industries overall. Farming is the most common trade of women with occupationally associated MSDs. Women farmers have the second greatest severity of disability from MSDs across all US industries.

**View slideshow: [Farming for Life: Using body mechanics & other tools to do what you love longer](#)**



Good body form and mechanics help you work longer

Photo credit:

Green Heron Tools

### **High Risk Behavior**

Women have elevated risk of musculoskeletal disability according to Brensinger. She listed these high-risk

### **Reduce Risks and Select Ergonomic Tools**

Adams advised choosing tools with the right fit and/or redesigning your tools. Be careful to lift and move the right way. Reduce bending with long-handled tools or raised beds. Avoid or minimize equipment vibration through shock absorbing handles and tractor seats, etc. Vary your tasks; change positions often when doing repetitive tasks.

Ergonomic tools should be comfortable immediately and after prolonged use. Tool grips should fit users' hands and allow joints to be in the neutral (unbent) position. Good tools will be lightweight and easy to use. Using well-fitted tools will improve performance and productivity along with long-term health and safety. Wrapping tools in moleskin will soften handles without the bulk of foam wraps.

Select a tool handle length that allows you to keep your back as straight as possible. If you mail-order tools, do not be afraid to pay the extra shipping for a long-handled tool that is properly sized and helps you work more comfortably. A great choice for farms with different height staff is a tool with easily adjustable handle heights such as the Valley Oak wheel hoe.

Consider a tractor Quick-hitch that allows connecting implements from the tractor seat, without the body strain associated with typical three-point-hitch connections. Auxiliary D-grip handles like those from Motus can be added mid-shaft; T-grips can be added to the end of long-handled tools.

### **Men and Women are Different**

Adams and Brensinger explained men and women need different tools: Women have 40 to 75% less upper body strength and 5 to 30% less lower body strength than men. The average woman is 5" shorter with narrower shoulders, wider hips and proportionately shorter arms and legs than the average male. Women have a lower center of gravity and greater flexibility. Women generally need smaller grips; women have 50 to 67% less grip strength than men. For more information, [click here](#).

### **Biomechanics**

Adams, a former nursing instructor, said nursing schools teach body mechanics training so nurses can reduce back injuries from lifting and moving patients. She advised maintaining a low, stable center of gravity with a straight back, bent knees and hips rather than bending forward. Place feet a comfortable distance apart with one foot slightly ahead of the other; keep your weight on the outside of your feet. Keep knees flexed, or soft, to absorb any jolts. Pivot with your feet; do not twist with your back or body. Hold carried objects close to the body while maintaining good posture.

"Lift with your legs, not your back," said Adams. She recommends against stooping but instead keep a straight back with bent knees. Always lift in one smooth motion. When reaching for an object, stand directly in front of it using a stool or ladder for easy access. Rather than reaching, twisting or stretching, hold and carry objects close to your body.

### **Shoveling 101**

When shoveling, stand with soft knees, elbows in, facing front with both hands on the shovel's D-handle. Keeping back straight, and wrists in neutral position, use leg muscles to push blade into the ground. Then slide non-dominant hand halfway down the shaft while bending knees. (Do not bend your waist.) Lift materials by straightening your knees until soft (just slightly bent). Toss material straight ahead or pivot your whole body rather than tossing material to the side. For detailed information, [click here](#).

### **Strengthening, Stretching**

"Farming is an athletic event," said Adams.

Many people associate this phrase with grammar school gym class, calisthenics or a trip to the neighborhood gym. You can do a few gentle stretches at home to improve your strength, flexibility, health and resilience. Start with running in place to increase heart rate and get oxygen to your muscles. Then stretch slowly and gently without bouncing; to avoid overstretching, stop when your body says enough. Remember to breathe; do not hold your breath. Stay relaxed. For sample stretches and a yoga video from Rodale Institute, [click here](#).

## Injury Prevention Tips

- Stretch before intense physical work
- Lift with legs instead of back
- Vary tasks, stay focused
- Keep objects close to your body (when carrying or lifting)
- Keep spine and joints in neutral position
- Use a wide, stable stance
- Keep your nose between your toes (no twisting)
- Test the load before committing to lifting
- Get help (when needed)
- Get the right tools

## AgrAbility

Farming is among America's most dangerous occupations. Injuries, illness and other chronic health conditions of farm owners and key staff can threaten farm viability. AgrAbility programs help farmers with disabilities through education and technical assistance on safe and practical ways to continue farming. To view the [AgrAbility Harvest - national disability in agriculture newsletter](#), [click here](#). Mentors and referrals are available for injured or disabled farmers. For more information, contact Bill Snow at (866) 860-1382 or (802) 223-238 x19 and via [email](#). You can also contact Gail Lapierre at (800) 571-0668 or (802) 656-5420 and via [email](#). The Vermont AgrAbility Project is based at 617 Comstock Road, Suite 5, Berlin, VT 05602-9194.

Ann Adams & Liz Brensinger were organic market growers for over 15 years and avid gardeners before that. Their backgrounds include nursing and public health; they now co-own [Green Heron Tools](#), which scientifically designs agricultural tools for women. Last year, they introduced HERShovel, a tool specifically designed for women and available in three shaft lengths. This lightweight shovel features an ergonomic D-handle and a large step on the top of the blade to facilitate women's use of their lower-body strength. (For more information, [click here](#).) They are currently working on a safer, easier-to-use alternative to the traditional full-size walk-behind rototiller.

This Farming for Life, Body Mechanics webinar was hosted by Jessie Schmidt of University of Vermont Extension New Farmer Project on May 29, 2012 as part of their free, monthly webinar series for new farmers. The webinar recording and slide presentation are available for viewing [here](#). The webinar was sponsored by the Women's Agricultural Network and UVM Extension New Farmer Project, which work to help individuals and communities put research-based knowledge to work. To view this webinar and see which other webinars are available, [click here](#). For more information about the UVM Extension New Farmer Project or webinars, contact Jessie Schmidt