

# ARTHRITIS and AGRICULTURE

*A Guide to  
Understanding  
and Living  
with Arthritis*



Cultivating Accessible Agriculture



Cultivating Accessible Agriculture

The vision of AgrAbility is to enhance quality of life for farmers, ranchers, and other agricultural workers with disabilities and other functional limitations.

This booklet is provided by:

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## INTRODUCTION

Designed for farmers, ranchers, and their family members with arthritis, this booklet explains what arthritis is and how it affects those who have it. It describes the most common forms of arthritis and provides many self-help suggestions for managing arthritis in order to maximize quality of life. The booklet also provides information on additional sources of assistance and other educational resources for individuals with arthritis.

The information presented here should not replace the advice and guidance given by your doctor. It is intended to help you better understand arthritis and the role you can play in managing its effects on your life. If you have questions that are not answered in this booklet, be sure to ask your doctor.



## ARTHRITIS - WHAT IS IT?

Arthritis means “inflammation of a joint,” resulting in swelling, redness, pain, and loss of motion. The term is used to describe more than 100 different conditions known as rheumatic diseases. These conditions affect the joints and surrounding tissues like muscles

and tendons, although they can also affect the skin, internal organs, and other parts of the body.

Arthritis is one of America's most common chronic (i.e., long-lasting) disease conditions, affecting one in three individuals. Without proper medical treatment and care, some types of arthritis can cause significant disability and deformity.

If you are a farmer or rancher, you are at increased risk for arthritis-related disability. The impact of arthritis on a farmer or rancher can be quite profound because the condition reduces your physical strength and ability to move around and complete routine chores. However, by getting medical care you will probably be able to "stay on the job." In contrast, if you wait until joints become extremely painful or deformed, it may be too late for doctors or life-style changes to help significantly.

## COMMON TYPES OF ARTHRITIS

### Osteoarthritis

Osteoarthritis causes the breakdown of the smooth, gliding surface of a joint known as cartilage. When cartilage is destroyed, raw bone surfaces rub together and the bone ends may thicken and form bony overgrowths called "spurs." This combination produces pain, stiffness and deformity made worse by use of the involved joint or joints. Osteoarthritis is the type of arthritis that most frequently affects farmers and ranchers, and it most commonly occurs in the weight-bearing joints such as the hips, knees, feet, and spine, but can also occur in the shoulders, elbows, finger joints, the joint at the base of the thumb, and the big toe. Involvement of the joints of the lower extremities can severely affect a person's mobility while upper extremity arthritis can alter the ability to effectively use the hand and wrist. Although heredity plays a role in acquiring osteoarthritis, excess body weight,

injury, and overuse can also contribute to the development or progression of the condition. For instance, every pound you gain adds four pounds of additional stress to your knees and six times the pressure on your hips. For the farmer or rancher, the frequent lifting of heavy objects, repeated use of vibrating machinery, or constant bending to perform certain tasks—such as milking, handling bales of hay, or lifting containers of produce—can add to the stress on joints and set the stage for arthritis, particularly of weight-bearing joints.

## Rheumatoid Arthritis

Rheumatoid arthritis is a systemic disease, meaning it involves the entire body. It is an inflammatory condition that primarily affects the synovium, the thin membrane that lines and lubricates a joint. Rheumatoid arthritis causes the membrane to thicken and produce chemical substances that damage the cartilage and bone within the affected joint and the supporting soft tissue structures such as capsules, ligaments, and tendons. The condition affects one or more joints and/or other internal organs. If untreated, the inflammation can damage joints and cause severe deformity, leading to disability. In some people, rheumatoid arthritis causes fatigue, fever, and general aches and pains.

Rheumatoid arthritis may involve men or women of any age, but it is most commonly seen in females in their 20s and 30s. It often first involves the hands, feet or wrists, but over time may include the ankles, knees, hips, elbows, shoulders, spine, or jaw. The disease usually affects joints in a symmetrical fashion; that is, when a joint on one side of the body is involved, the same joint on the opposite side of the body will be affected. Some patients with rheumatoid arthritis experience constant symptoms while others have an “up and down” course of bad periods or “flares” and good periods called remissions.

## Bursitis and Tendonitis

Bursitis and tendonitis are painful conditions that usually last only a short time and do not cause permanent damage. Bursitis is inflammation of the bursa, which is a small sac that acts like a cushion where a muscle crosses another muscle or a bone. Tendonitis is inflammation of a tendon, which is the fibrous cord that attaches a muscle to a bone.

A farmer or rancher may develop bursitis or tendonitis when certain muscles or tendons are stressed, such as by too much lifting, carrying, or throwing, or by constantly gripping and manipulating the controls on farm equipment. Some dairy farmers have developed “milker’s knee,” a form of bursitis that results from repeated kneeling to attach milking equipment onto their cows’ udders. Sudden shock to the joint, such as repeated jumping off equipment, can also lead to joint damage and inflammation.



## MANAGING ARTHRITIS

Arthritis can be managed so that its progress is slowed and its effects minimized. Essential to proper treatment and care, however, is the involvement of an appropriate team of health care professionals. Starting with your family doctor, the care “team” could also include: a *rheumatologist*, who is a doctor specially trained to treat those with arthritis; a *nurse* specifically trained in arthritis care; a *pharmacist*, who can explain actions and side effects of drugs; a *physical therapist*, who can show you (1) exercises to maintain or improve muscle strength and flexibility, (2) ways of reducing joint pain, and (3) the best positions for using your joints; and an *occupational therapist*, who can teach you how to reduce strain on joints and maintain muscle strength in hands and wrists and who can provide you with joint-protecting splints and other devices.

The following sections briefly highlight some things that a farmer or rancher can do to manage his or her arthritis. For additional information about specific arthritic conditions and/or methods of treatment, contact your local health care provider.





## Diagnosis and Commitment

The first and most important step toward managing arthritis is to get a proper diagnosis from your doctor or referred rheumatologist so that an appropriate treatment plan can be designed—one based on the type of arthritis you have, your unique needs, and likely progression of your condition over time.

Find out to what extent your disease will limit your activities and what life-style changes you'll have to make. This isn't easy, but untreated arthritis can lead to very serious problems that could eventually prevent you from farming or ranching altogether.

Work with your doctor to make sure the treatment program being designed will meet your needs. If it's satisfactory to both of you, then it's important that you commit to following it. If not completely satisfactory, continue working together to find that combination of treatments best suited for you. Your treatment plan, diligently followed, presents the best chance for managing the disease so that you can continue to work.

## Heat and/or Cold Treatments

People with arthritis often use heat and cold treatments to help relieve pain. A warm bath or shower can reduce morning stiffness and help make exercising easier. A heating pad can provide short-term pain relief. *Caution:* If you use one, be sure to turn it off before going to sleep. An ice pack applied to painful areas often helps to reduce the pain. Sometimes using a form of heat followed by a form of cold can lessen discomfort. Ask your doctor or physical therapist for other suggestions about reducing pain with heat, cold, or both.

## Exercising

To many farmers and ranchers with arthritis, the suggestion that they may need more exercise may come as a shock. However, many agricultural

tasks have become more sedentary or highly repetitive and involve only a relatively small number of joints.

Depending on the type of arthritis, over time your joints may stiffen, become painful to move, or eventually become deformed. One way to lessen the chances of these problems is with proper exercise that involves all the key body joints. Even if you are a farmer or rancher and get plenty of exercise, it may not be the kind you need to protect, strengthen, or maintain function in joints. Here are some exercises designed just for arthritic joints and the muscles that support them.

- **Range-of-motion exercises** to extend joints through their limits of movement. These help maintain normal joint movement, relieve stiffness, and restore flexibility that's been lost.
- **Strengthening exercises** to help retain or increase muscle tone. Strong muscles help keep joints stable and more comfortable.
- **Fitness or endurance exercises** to make heart and lungs stronger, give you more stamina, help you sleep better, keep weight under control, and help lift your spirits. Walking, bicycling, and swimming are examples of these types of low-impact exercises.

## Sleep, Rest, and Pace Yourself

By learning to treat your body well, you can help it work better with less pain and fatigue. A good night's sleep restores energy and strength and gives joints a chance to rest. Adequate sleep has also been shown to reduce the risk of farm and ranch related injuries.

For the farmer or rancher, resting during the day is perhaps the toughest part of an arthritis-management regimen. In fact, during planting, harvesting, and other high-activity periods, it may seem impossible. However, daytime resting is extremely important because it helps restore strength while keeping you from doing too much.



Depending on how active you and your disease are, your normal routine may have to change somewhat so you work a little less and rest a little more. One way is to schedule rest breaks at various times throughout the day. During very busy times or when joints are especially painful, consider dividing the workload among family members or hiring help.

Conserve your energy by pacing yourself. Learn to tell when you are getting tired, and take rest breaks as needed. Not only will you likely accomplish more than by working straight through to exhaustion, but also you will reduce the chances of an injury now and/or pain and swelling later because you overextended yourself.

Other options are to consider scaling back the scope and size of your operation to match your physical abilities or to increase the use of mechanization to boost productivity and reduce the time required to complete essential tasks.

## Medication

The arthritis drugs prescribed for you can greatly reduce both the pain and the inflammation—if taken correctly. Many of them must be taken every day to be effective, and many must be taken with food. Remember to ask about side effects and what to do if any should develop.

## Coping with Stress

As a farmer or rancher, you are often under a great deal of stress. Some of your worries may relate to weather uncertainties, changing

market prices, or perhaps even economic survival. If you have arthritis, you could also be dealing with pain, doctor visits, side effects of medication, and medical bills. These pressures add up. Unmanaged stress can increase your pain and make it harder to live with arthritis.

Thus, one of the keys to managing arthritis is learning to cope with stress. Here are some suggestions you might consider implementing:

- Evaluate your arthritis and obligations in terms of your physical well-being.
- Do away with those things that aren't really necessary; instead, try doing a few things well.
- Learn how to say no.
- Simplify your life.
- Keep in mind that certain aspects of agriculture (e.g., market prices, many basic production expenses, and the weather) are beyond your control.
- Don't try to be perfect.
- Share your problems, concerns, and/or feelings with family members and appropriate friends.
- Develop and keep a sense of humor. Learn to laugh more—it's great medicine.
- Ask your doctor or other health care team member to teach you relaxation techniques that can rest your mind and body in only a few minutes.
- Ask for help in carrying out farm or ranch-related tasks if you need it.
- Consider joining an arthritis support group. Being able to relate to others in a similar situation can be very therapeutic.

## Work Simplification

Most farm or ranch related tasks can be changed slightly so that the farmer or rancher with arthritis can perform them more easily. Therefore, for each task, think about how it might be simplified to require less energy or cause less stress on your joints. Can a different tool or piece of equipment be used to complete the task? Can steps be omitted or combined? Is there someone else, such as a family member or employee, who can perform the needed activity? Here are some tips that might help:

- Organize your day by planning what you want to have done by day's end, then by ranking tasks in order of importance to accomplish that goal.



- Create an accessible, comfortable work place. Use as many labor-saving devices and easy-to-grip tools as possible. Locate switches and electrical outlets so they're easy to reach. Arrange tools so they're easy to reach and store. Gather needed supplies and materials before you start working. Transport items by a cart rather than carrying them. Raise or lower the worktable or bench to reduce the need to bend or reach.

- Whenever possible, sit while you work to take the weight off your joints. In the barn or shop, keep a chair, stool, or bench nearby so you can rest from time to time. When in the field or the yard, sit on the bed of a truck or wagon to rest.



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- Alternate difficult jobs with easier ones. For example, if replacing fence posts, plan to do that in the morning when you have the most strength and energy; then work on easier projects in the afternoon. Alternating heavy and light tasks will spread your limited energy over a longer period of time.
- Combine similar tasks. For example, if you have to repair several items, try to do all the repairs in the same block of time.
- Do the work that needs to be done in one area before moving to another. For instance, finish all your barn chores before you begin chores in another area.

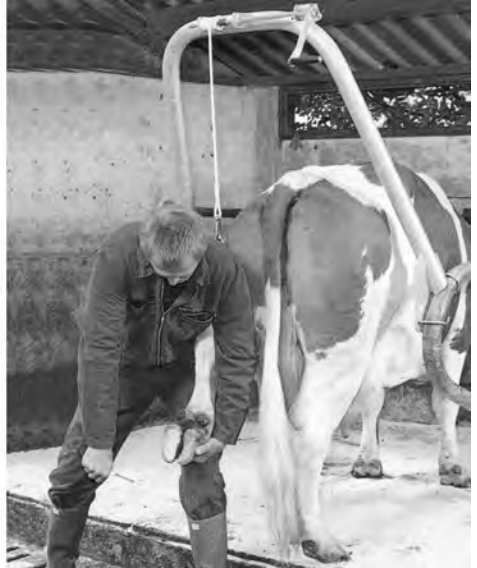
While these last two suggestions may work for some people, they could invite “overuse pain” for others. You must determine what feels

better for you—doing all your work in a block of time for efficiency or changing planned tasks more frequently to minimize joint pain.

For other tips on modifying agricultural work sites to accommodate arthritis-related limitations, visit an occupational therapist or check out the resources available from the National AgrAbility Project at [www.agrability.org](http://www.agrability.org)



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## Protecting Your Joints

It's important to protect your joints against unnecessary stress that can cause more damage. Therefore, learn ways of doing tasks that put the least amount of stress on them. Although protective habits won't reverse joint damage, they will help delay or prevent further damage. Here are some of those habits:

- Avoid gripping or grasping objects tightly for very long. Gripping creates tension in muscles and tendons that can stress joints. Consider building up handles or control levers on tractors and combines with padding to

provide more surface area so you won't have to grip them as tightly. Also, try pushing or pulling control levers instead of grasping them; extend your fingers and use the palm or heel of your hand to do so.

- Perform tasks using the strongest or largest joint possible. For example, instead of carrying a heavy pail with your hand, carry it over your shoulder in a sling; or use an alternative means, such as a utility vehicle or wheelbarrow. When lifting, bear the weight with your knees rather than your back; use hands or feet to slide or roll objects rather than lifting them; and use your hips to push doors open or closed.
- When operating or servicing farm machinery, avoid jarring motions or shocks. For instance, don't use sudden jerks when trying to loosen or adjust something. Make sure the machine has an operator's seat that absorbs shocks, provides proper back support, and can be adjusted to fit your body. Never jump down from any kind of vehicle or implement. During long periods of operation, take breaks often to walk or stretch. If you begin feeling a lot of pain or stiffness, don't operate the equipment any more that day; either wait until the next day or have someone else take over for you.
- Maintain proper posture, which helps keep joints and muscles in their most stable position and helps prevent you from hurting your back. Avoid the use of short-handled cultivating tools that require a stooped posture. In some cases, it may be more comfortable to be on your knees than to be stooped over.
- Don't stay in the same position for long periods. Back pain can result if you operate equipment several hours at a time without resting or changing position. Taking periodic rest breaks to stretch can reduce stiffness and pain, and occasionally shifting position during operation can help maintain circulation.



- Find alternatives to lifting or carrying objects. If knees or other major joints are affected by arthritis, use power equipment whenever possible to hoist and move heavy items. For example, many farmers or ranchers have converted from small conventional bales to large round ones that can be handled with a tractor-loader. Utility vehicles are important tools for farmers with arthritis since they can carry small loads and reduce the need for walking on rough ground. There is a wide variety of equipment that can be used or adapted for use in carrying everything from seed to calves.



- If you must lift or carry objects, use the proper techniques. For instance, to lift an object from below waist level, first bend your knees, grasp it close to your body with both arms, then push yourself up with your leg muscles. Try not to lift by bending over at the waist or by keeping your knees straight. This could injure your back. It's better to carry two smaller loads than a large one.
- Be careful getting in and out of agricultural equipment. When climbing in, face the steps and climb one step at a time, starting with your stronger leg; when climbing out, lead with your weaker or more painful leg. To help you remember—"The good goes up, the bad goes down." Also, to help take weight off your joints, install additional grab bars and/or extra steps.

- Consider ways to reduce the need to climb on and/or off equipment. Among them are accessories like automatic gate openers, automatic hitching devices, remote controls on trailing equipment, or perhaps a lift that can raise you from the ground to the equipment seat.
- Reduce the stress of machinery operation. During certain busy times, a farmer or rancher may spend 10-16 hours a day on a tractor or combine. If you are affected by arthritis, this can be extremely stressful. If long hours can't be avoided by involving others or extending activities, here are things that will help increase comfort and reduce stress:
  1. Use tractors and self-propelled equipment with environmentally controlled cabs, which will minimize your exposure to vibration, dust, noise, and extremes in temperature.
  2. Use the tractor with the best ergonomically designed seat to reduce shock, improve support, and increase comfort.
  3. Modify or relocate control levers to reduce the need to stretch and bend.
  4. Use an oversized rear-view mirror or swivel seat to eliminate having to frequently turn and look over your shoulder.
  5. Use the seat belt, if your machine is equipped with one, to help you stay more upright. (Do not install seat belts on tractors not equipped with rollover protection.)
  6. Be sure the seat has armrests and supports your lower back.
  7. Use a footstool if your feet don't rest flat on the floor.
  8. Sit with head up, shoulders straight, and stomach in.
  9. To get up from a seated position, place your palms (not fingers or fist) on the seat next to your thighs, bend your neck and upper trunk forward as you rise; then straighten your knees.
  10. When you sit down, do not allow yourself to "flop" into the seat.
- Reduce the stress of standing and walking. If you have to stand for a long

time, try to keep one foot elevated (e.g., on a step stool) to ease back muscle tension; and don't stoop or slouch, causing your muscles to work harder to keep you upright. When walking, let your arms relax and swing slightly to help keep you balanced; be careful not to twist or jar your knee on uneven ground. If walking is difficult for you, consider using an all-terrain or utility vehicle.

- Wear proper, quality shoes or boots to support your feet and ankles in a correct and comfortable position and to help relieve pressure, absorb shock, and lessen pain. Steel-toed shoes can protect your feet from injury by falling objects or from cuts by sharp edges or blades. Nonslip soles can help you walk safely on wet or uneven terrain. If you have severe arthritis that deforms your feet, you may need custom-made shoes to avoid pressure sores and reduce pain. Your doctor can make a referral for special footwear.
- Use appropriate assistive aids. For example, a simple splint can help prevent deformity in your wrist; a cane held in the hand opposite an arthritic hip will ease weight off that hip; and all sorts of gadgets, from jar openers to quick-attach hydraulic couplings, can help reduce joint stress as well as conserve your energy. For more information on useful adaptive aids for farmers and ranchers, check out *The Toolbox Assistive Technology Database* available online at [www.agrability.org/toolbox](http://www.agrability.org/toolbox).



## UNPROVEN ARTHRITIS REMEDIES

Unfortunately, many people with arthritis have spent much money on unproven and ineffective remedies, such as wearing a copper bracelet

or magnets. Testimonials can sound exciting, but they don't count as scientific evidence. Giving up your prescribed treatment program for a remedy that hasn't undergone scientific testing can allow your disease to progress uncontrolled, resulting in joint damage that otherwise could have been avoided.

Scientific testing of a proposed treatment involves controlled studies on people (not just animals), with the findings confirmed by several research centers. These measures are necessary to prove that any positive results did not happen by chance and that the proposed treatment is safe.

When it comes to arthritis remedies, it's important to be an educated—and skeptical—consumer. Remember, nothing is as effective in addressing your arthritis problem as working with your doctor to manage it.



## SOURCES OF ASSISTANCE

### State AgrAbility Projects

Currently operating in approximately 20 states, AgrAbility Projects are partnerships between state Cooperative Extension Services and various nonprofit disability organizations. These projects, funded in part by the U.S. Department of Agriculture, provide direct services

to agricultural workers who have disabilities (including those with arthritis), disseminate educational materials, and conduct local outreach efforts. You can get contact information for all the AgrAbility Projects at [www.agrability.org/contact-lists](http://www.agrability.org/contact-lists) or call 800-825-4264.

## National AgrAbility Project

The National AgrAbility Project, led by the Breaking New Ground Resource Center at Purdue University, has a wide variety of resource materials designed to help farmers and ranchers with disabilities continue working in agriculture. Many of these items are relevant to those with arthritis. Visit [www.agrability.org/resources](http://www.agrability.org/resources) or call the center at 800-825-4264

## Community Health Services

Your local community health service may be able to provide the names of nearby doctors and medical centers. Some community or university hospitals offer special arthritis programs.

## Rehabilitation Facilities

Occupational therapy departments in most rehabilitation hospitals will help provide information on adaptive equipment and devices. Look in your Yellow Pages or search the Internet for “Rehabilitation” or “Hospitals” to find a facility in your area.

## State Cooperative Extension Services

State Cooperative Extension Services offer health and safety education resources for farm families. Contact your county Extension office for more information. You can find a listing of every county Extension office in the U.S. at [www.nifa.usda.gov/extension](http://www.nifa.usda.gov/extension).

## Vocational Rehabilitation

If your arthritis is so far advanced that you have trouble performing essential physical tasks, you may want to check with your state's Department of Vocational Rehabilitation (VR), listed online at [www.askearn.org/state-vocational-rehabilitation-agencies](http://www.askearn.org/state-vocational-rehabilitation-agencies). VR can provide a variety of services to help you continue working in agriculture or a related occupation. Many farmers and ranchers have received adaptive equipment through VR. In addition, VR can sometimes pay for courses that can help expand your job skills in fields like agricultural sales and management.

## Social Security

If you are disabled by arthritis to the point where you can no longer work, you should find out if you can receive financial assistance through Social Security programs. To be eligible for disability benefits, you usually need to have worked a certain period of time in a job covered by Social Security. Look in your phone book or search the Internet for “U.S. Government, Social Security Administration.”

## The Arthritis Foundation

The Arthritis Foundation—whose mission is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases—is the single largest nonprofit funding source for arthritis research in the world.

As a nonprofit organization, the Arthritis Foundation relies on public contributions to fund research and provide service programs. To learn about available services and resources, visit [www.arthritis.org](http://www.arthritis.org), or call 800-283-7800.

## CONCLUSION

Many farmers or ranchers with arthritis are continuing to function in their occupations. And you likely can too *if* you (1) accept the fact that arthritis is a part of your life and (2) decide to fully commit to taking care of yourself. That means respecting your limits of energy, taking your medication properly, getting enough rest, pacing yourself, reducing stress, protecting your joints, and doing your prescribed exercises. If you make—and stick to—that commitment, it's likely you can maintain an active, productive life in agriculture.

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To order copies of this *Arthritis and Agriculture: A Guide to Understanding and Living with Arthritis* booklet, contact the National AgrAbility Project, 225 South University Street, West Lafayette, IN 47907, call 800-825-4264, email [agrability@agrability.org](mailto:agrability@agrability.org), or visit [www.agrability.org/arthritis](http://www.agrability.org/arthritis).

Other agriculture-related resources that might be of interest include: *Plain Facts about Arthritis*, a version of this booklet for Old Order/Amish communities; *Gaining Ground on Arthritis*, a 15-minute DVD on arthritis in agriculture; *¿Podrá ser la Artritis lo que me causa Dolor?* (Could Arthritis be what is Causing My Pain?), a Spanish-language fotonovela for Latino audiences; and *Arthritis and Gardening: A Guide for Home Gardeners and Small-Scale Producers*.

[agrability.org/arthritis](http://agrability.org/arthritis)



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