

# Body Care Tip Sheet for Farmers

Brought to you by The Flexible Farmer



## What is in the Tip Sheet?

- ★The Basics of Anatomy page 1
- ★Four Golden Rules of Good Body Mechanics page 2, 3 and 4
- ★Injury Prevention Tips page 4



## A Quick Word of Introduction

The farmers' body is a working body. This is a body that has an indispensable task, to work the land and bring food to the community, family and self. Many bodies have done this work, handing it down for generations as the most important work a body could do. For 10,000 years humans have taken on the responsibility to create food from simple resources, using physical and mental strengths to overcome the challenges that pepper their gratifying work.

Bending, stretching, lifting and straining the bodies of farmers helped build stable, sustainable societies by providing the means to stay in one place. But more often than not the farmer's body is also a hurting body. A body plagued by constant aches and pains, stresses and strains but, it doesn't have to be this way! Your working body can be effective, efficient and safe. You just have to know how to keep it running smoothly.

This tip sheet is written as a way to educate farmers on their working body so they can farm with less pain and injury. My hope is that by knowing a few simple ways to prepare, maintain and restore the body farmers everywhere can keep doing the amazing work of growing food, without having to compromise their physical wellbeing.

Good luck to you and happy farming!

Lydia Irons, BA, LMT  
Founder of The Flexible Farmer



## The basics of anatomy as they relate to You! A mover and a worker!

Your body is a machine just like any other on your farm. It has basic parts that you need to understand before you can use it properly.

Your body is made up of 3 structures that keep it upright and moving (I'm not going to talk about the systems that keep it working like your guts and nervous system. Just the ones that form the structure for movement) These structures are:

### Bones!

Your bones are the frame of the body, without them we would quite literally fall to pieces.

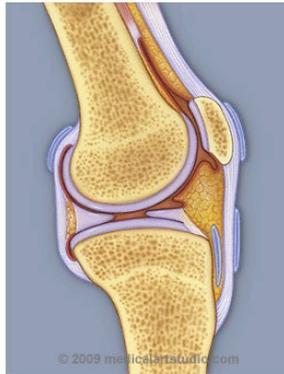


www.shutterstock.com · 74421508

Bones are pretty straight forward. They are strong and sturdy and they provide the muscles a place to attach. They would not do much moving on their own if it wasn't for...

### Joints!

Your joints are the place in your body where two or more bones make contact.



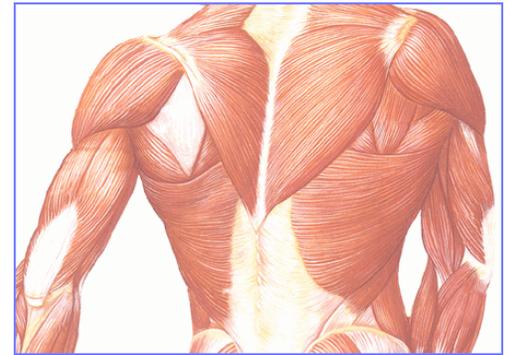
© 2009 medicalartstudios.com

They are cushioned by a meniscus and they are wrapped in a capsule of connective tissue. Inside each joint is a fluid called Synovial fluid that allows the joints to move freely.

Joints can generally move in one or a few directions. The more different ways a joint can move at any given time the more vulnerable it is to injury. Each joint is controlled by a set of...

### Muscles!

Your muscles are made up of countless little fibers whose job it is to contract and stretch to make your body move.



These fibers are surrounded by and wrapped in a connective tissue called fascia. Fascia is like a microscopic spider web where all the space in between the strands are filled with fluid. Fascia keeps the fibers moving around each other with little friction.

When the muscle fibers work they produce waste like acids and minerals which can build up in the tissue over time. As your muscles work more they tear and regenerate more fibers to grow bigger and when they are fatigued they can produce less and less force.

## The Four Rules of Good Body Mechanics

When developing these “rules” I did research into anatomy, kinesiology and, of course, farm labor. By understanding these rules and keeping them in mind as you go about your day you will not only be more likely to prevent injury but also avoid undue stress. Won't it be great to work with your body instead of despite it?

### Rule Number One: Always assess your task!

Before you head out to weed the carrots, ted the hay or bring water to the goats ask yourself these three questions.

They will help you prepare for the work ahead and help you remember your body.

#### • How Fast?

Do you have to fly through the chores? The faster your body has to work the faster you will get fatigued. So when you are thinking about the speed you will be asking your body to go, know it will effect how long you can work for.

This is different for every body and will take some observation to know for sure. By assessing if you have to work at top pace today you will know to take a little extra time to warm your body up for the work and quit when your muscles are done.

Preventing fatigue works for farmers just like in sports or working out. You can't just fling your body into a task full tilt, you have to get the blood flowing and the muscles warm or they wont be ready for the work and are more likely to tear or cramp. Take a few seconds to do some jumping jacks, run around the truck or do a sun salutation, whatever gets your blood flowing.



Reassess your task as you go along so you know when to slow down or to just be done. This is a hard one for many farmers but your muscles are MUCH more likely to rip, tear, sprain and cause all sorts of terribly painful problems for you if you work them past the point of fatigue. So, when you are looking down the row of carrots to be weeded and you start to feel that soreness creeping into your legs and low back take a breath and think about if you can be done for the time being. If it has to get done now (if not last week) continue at a slower pace and be aware that your joints and muscles are vulnerable to injury until you can let them rest.

#### • How Much Time?

Are you hopping around the farm doing any number of different tasks today? Or are you going to be on that tractor 'till the cows come home...literally? The longer you are going to be doing the same task the more you need to maintain your body to reduce the possibility of repudiative stress to the muscles and joints. If you are going to be doing one task for more than two hours try to take a stretch break every 45 minutes. This will allow your muscles to keep from forming adhesions and tearing only in the same places over and over. Another thing to consider when you are facing a long session at one task is to switch sides.

If you are always doing a task from one side, like hoeing, the muscle on one side gets over worked while the muscles on the other side become stagnant. Though it might be hell at first to learn how to work the scuffle hoe from the other side once you get good at it you will notice that your muscles will be less sore and you can work for a little longer. By switching up the side you are working from you will be keeping your musculature evenly worked and supported.

#### • How Heavy/How much force needed?

This is an assessment needed mostly for lifting. have you ever gone to lift something and you think it is much heavier than it is, then when you lift it you fall backwards? This happens because in the split second between thinking about making your muscles contract and your muscles contracting your brain tells them what to expect and how much force to put into it. Imagine then how powerful it would be to take a breath before you lift an object and think to yourself “Ok, this is going to be heavy, but I can do it.” Your muscles will get this message and they will be able to brace for the load that needs lifting.

It's also not a bad idea to assess the weight of an object anyway, because if it is at the heavier end of what you think you can lift do the smart thing and ASK FOR HELP. Better to take some time to find someone to help with the hefting than wind up bulging a disk that will be a painful problem for the rest of your life.

## Rule Number Two: Watch your Body Positioning and Alignment!

When your body positioning is poor and your alignment is off you leave the body open to injury. Rolled ankles, torn ACLs and sprained backs can all be due to the way your body is positioned in relationship to your work

### • Stacking the Blocks

Your body is made to work hard with the least amount of force. But only if it is aligned properly. When the major sections of the skeleton are aligned with each other they support the proper movement of the joints. When the joints are able to move properly the muscles and ligaments only have to work as hard as the force being put against them. Though alignment issues can develop at an early age and be multifaceted there is one simple thing you can do to improve your alignment during your work, think about stacking the blocks of your body.

What I mean by that is when you are doing any particular task try to imagine your body in 5 segments. Below your knees, thighs, pelvis, rib cage and neck/head. You want the blocks stacked evenly over one another so that one isn't tipping off to the side. It might take standing in front of a mirror to see this properly and a lot of practice to implement in real life but, when the major sections of the body are aligned the system works better as a whole.

### • Facing and Getting Close to your work

When thinking about alignment remember to make it easy for your body by getting right up to your work and facing it head on. To illustrate this point remember this [Keep the Excavator from Flipping](#).

Think about driving out a 3 ton excavator to turn a compost heap. Would you want to pull up along side, facing the wrong way, stretch out the bucket to the end of its reach and then dig in? Only if you wanted to flip that thing right onto its top. No, you would drive close up to the heap, face it head on and then only reach the bucket as far as need be.

Give your body the same consideration to keep it working effectually and safely. Just because you can reach out back behind you to grab that tool box doesn't mean you should. Turn around, take a step and then grab it.



## Rule Number Three: Protect your Joints!

Joints are particularly prone to injury during farm work because of all the heavy lifting and repetitive stress. By protecting your joints you can keep your ligaments from tears and keep your muscles from chronic spasms and cramping.

### • Hyperextension

When a joint goes past the natural extension of its range of motion it is called hyperextension. This can happen in any joint but is most common in the elbows and knees. When joints are being forced past their limit the effects can be very damaging. Not only does the joint itself lose fluid, it can sometimes develop a rip or tear in the meniscus.

The most permeant and painful injury caused by hyperextension is the loosening or tearing of the ligaments. To avoid hyperextending give the joint a little bend before asking it to bear weight. For example if you are going to pick up a five gallon bucket full of water instead of lifting it with your arm completely straight with nowhere to go but back, bend your elbow before you lift. This gets your joint ready and protects it from snapping past its point of no return.

### •Counter contractions

When you are taxing a joint doing heavy tasks using larger muscles to help with the work you can keep the joint from being yanked out of place. This is another great way to keep your joints safe when working.

The large muscle groups in the body are large for a reason, get them involved in tasks and you'll find your body is able to handle more work and is less sore for it. When you are stressing your low back engage your core, when your core is working over time engage your quads and so on.

Lets look at the water bucket example again. When you bend your elbow and you are about to lift the bucket pull your shoulder blades down your back to engage your large traipses and flex your biceps to protect your wrist. This way you are protecting your joints all the way up your arm.



## Rule Number Four: Always consider Economy of Movement

This rule is very important because musculoskeletal injury most often occurs when the body's systems are over worked and fatigued. Learning to economize your movements will help your body better deal with the volume of work that farming demands.

- **For light/fine tasks, like seeding flats, ask yourself “how can I work the most effectively to avoid fatigue?”** That could mean raising or lowering your table so you are close to

your work. Or gathering all your materials within arms reach. What ever makes the task more effective for you will ultimately help you avoid injury as you will get it done a little faster with less muscle strain.

- **For heavy/strenuous tasks, like carrying hay bales think “how can I break this down into a more manageable amount?”** This body care rule comes from an old saying used by Mainers using horses for logging. The saying goes “Go light, go often and you'll get more done” The same is true for you. If you know you have to toss every hay bale in the field into the wagon carry over one at a time.

## General Tips for Injury Prevention

**Warming up!** Remember a warmed up muscle is a happy muscle. As stated before in “Assessing your task” when you are warm and ready to work your less likely to cause your muscles undue stress or injury

**Hydration!** Everything in your body benefits from water; fascia, muscles joints even your brain. When you are well hydrated your muscles can not only perform there contractions without sticking to one another you are also flushing out the waste they produce. If not flushed out this waste can build up and cause muscle soreness and hard crunchy “knots”.

**Stretching Breaks!** This is another way to remove waste from the muscles.

Stretching also helps to to re-set the central nervous system, break up adhesions and get blood flowing. By allowing the muscles to lengthen in a stretch you give them a chance to let go of the contractions they have been holding during the day. This helps keep the body from being over tight, alleviates minor pain and helps the muscles develop better to become stronger

**Restoration!** At the end of your long hard day don't just flop onto the couch or slouch into your dinner table chair. Give your muscles a chance to cool into a good alignment by sitting or lying down in a supported way. If you are sitting down for dinner put a small pillow in the small of your back to support the natural curve, have both feet flat on the floor and bring your shoulders down your back.

If you want to take a short lie down lie on your back with a pillow under your knees. This way you give your body a chance to begin restoring the muscles and other tissue

in a actively neutralized posture, which will help your alignment. Another key thing to consider for restoration after work is the application of ice and heat. If your shoulders are sore or your low back aches put an ice pack on it for 5 to 10 minutes and than take a nice hot shower. What this does is cools down the muscles and gets the bodies pain and inflammation response to ease the muscles. Then the heat brings new blood into the muscles flushing out any waste and allowing them to let go of their contractions. Now you are ready for a restorative nights sleep.



For more information check out The Flexible Farmer online and read these books!

[www.theflexiblefarmer.com](http://www.theflexiblefarmer.com)

Anatomy of Movement

Blandine Calais-Germain  
Eastland Press; 1991

Bio-Mechanical Basis of Human Movement

Joseph Hamill  
Kathleen Knutzen  
Lippincott, Williams, Wilkins; 2009

The Concise Book of Muscles

Chris Jarmey  
Lotus Publishing; 2003

Stretching Anatomy

Arnold G. Nelson  
Jouko Kokkonen  
Human Kinetics; 2007

## About Lydia Irons

Lydia Irons was raised on a homestead in rural N.H. She started swinging a hammer and hauling wood from an early age. At 13 she became a summer laborer on a large vegetable farm and has been a dedicated farm worker ever since.

From vegetable fields to dairy herds, five acre homesteads to 300 acre major producers, Lydia has worked on farms for over 10 years. Lydia went to college to study sustainable agriculture and there realized she had a passion for the study of human anatomy and ergonomics as well.

She received her BA from Hampshire college after completing a thesis titled *The Human Body in An Agricultural Context*. Lydia went on to receive her Massage Certificate from The Massage School after completing the 800 hour training program and was licensed by the state of Massachusetts in 2011.

It is Lydia's life mission to provide bodywork to those who work their bodies the hardest growing food, building houses, keeping our cars running and our landscapes beautiful so that they can live with less pain and fewer injuries.

