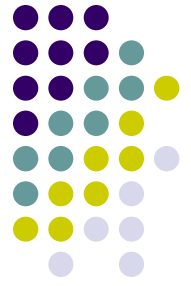


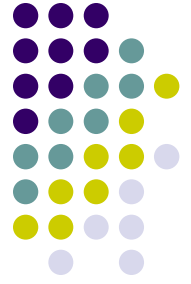
# Gardening for People with Disabilities or Those Who Are Getting Older



**One thing a gardener values are their “tools.”  
Tools are essential aids whether a garden is on a  
balcony or takes up several acres.**



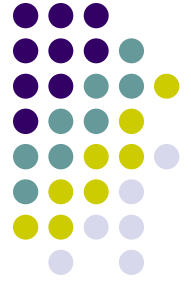




## Gaining rural independence through the use of ergonomic, enabling and adaptive garden tools



# Your hand as a TOOL



# Ergonomic Garden Tools



**Ergonomic tools generally are made with large, soft handles. This allows you to get a better grip on the tool.**

**Ergonomic tools have a textured, no slip handle, which allows for a better grip.**

**The tool should also have a depression or ridge on top of the tool for your thumb to rest against. This keeps your hand and wrist in a neutral position as you garden.**

**Ergonomic tools are designed to keep the body in neutral positions. This lessens the amount of stress on joints and allows you to work longer and exert less energy.**





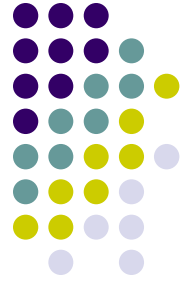
# Neutral Wrist Position - Natural Wrist Posture



**The Natural Wrist Position is the posture the wrist and hand assume when at rest.**

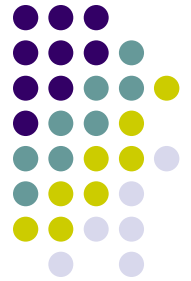
- **a straight, unbroken wrist**
- **the hand rotated to a relaxed position (30-60 degrees)**
- **the fingers curled and at rest**
- **the thumb straight and relaxed**





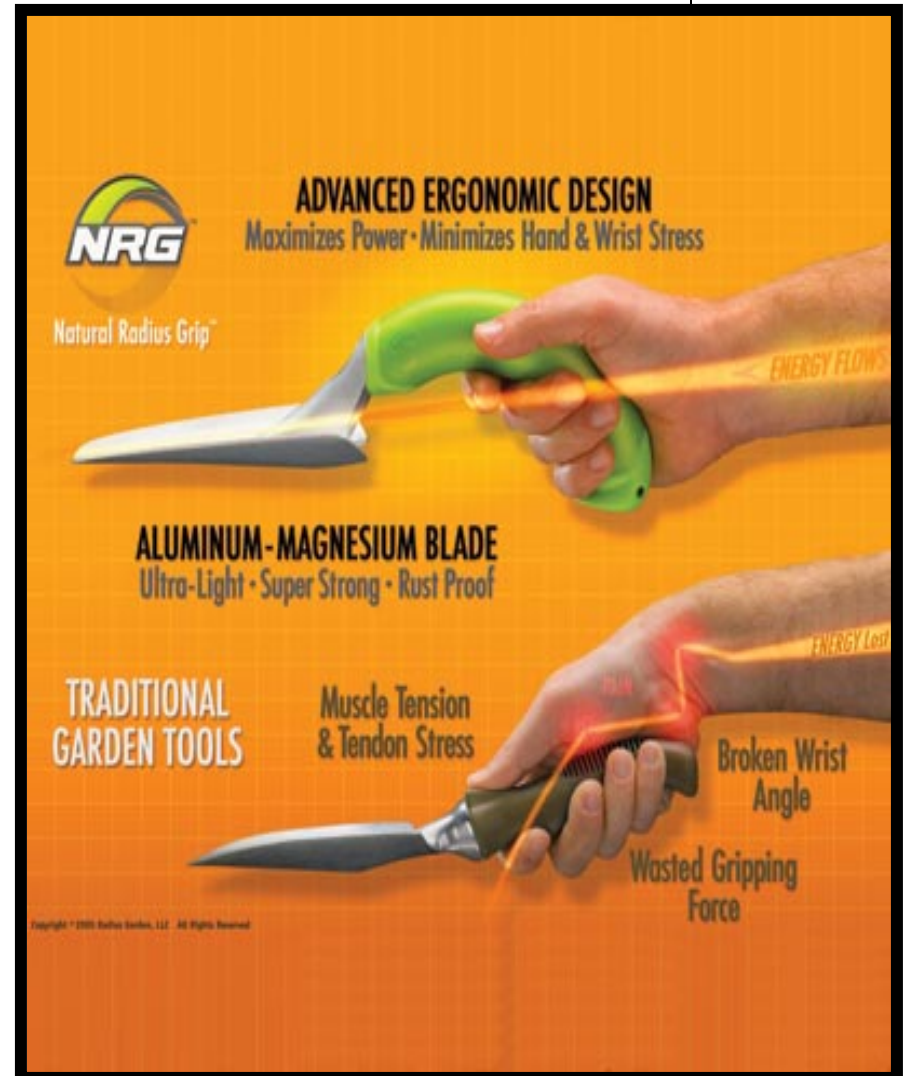
**Using proper garden tools are important. Without proper tools, no garden will give you the success you desire. Whatever style of tool you choose, there are a few universal pointers that will help you as you garden:**

- Use tools with the right size grip - To find the right fit, make a circle with your index finger and thumb, that is the size the grip of your tools should be.**
- Try to find tools with a depression or ridge in the handle for you thumb to rest on, this will keep your hand in the proper alignment**
- Use tools with longer handles to cut down on the need to bend over or kneel**



# Hand Tools

- Tools should have handles that fit your hand
  - Handle should be big enough that your thumb barely overlaps your fingers
  - Handle should be small enough that you can hold it comfortably



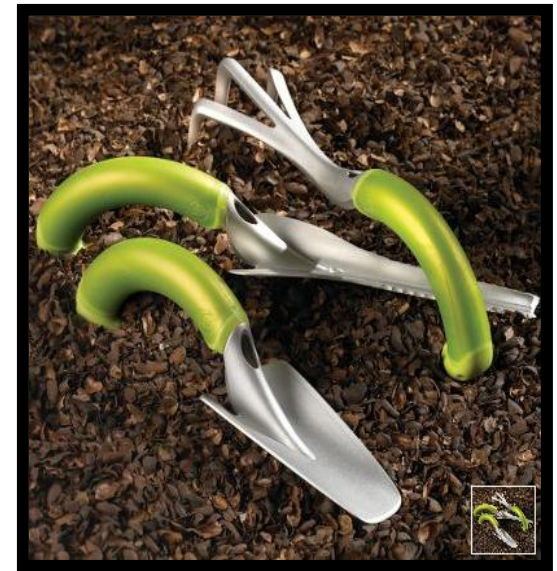


# Grip: The Surface

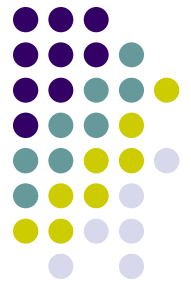


- **Non-slip to add resistance and decrease gripping strength**
- **Pliable**

# Grip: The Fit

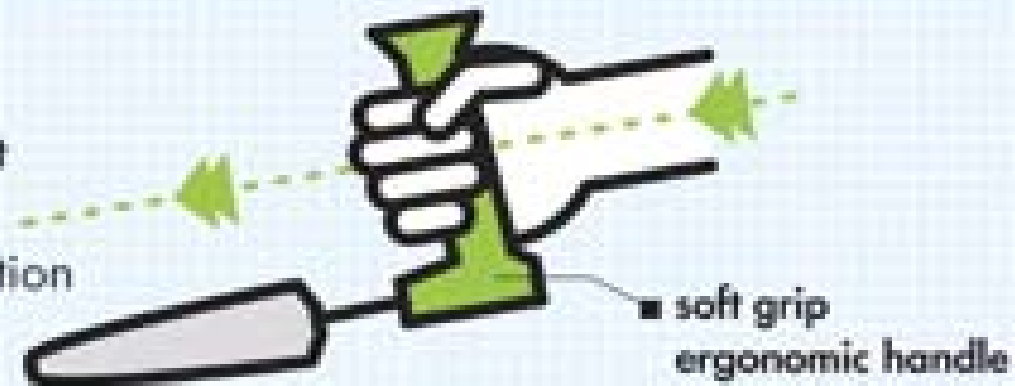


- Enlarged grip to fit the hand - most efficient 1 1/2" - 2" circle
- Curved to fit the natural contour of the hand
- Wrist in neutral position with thumb on top

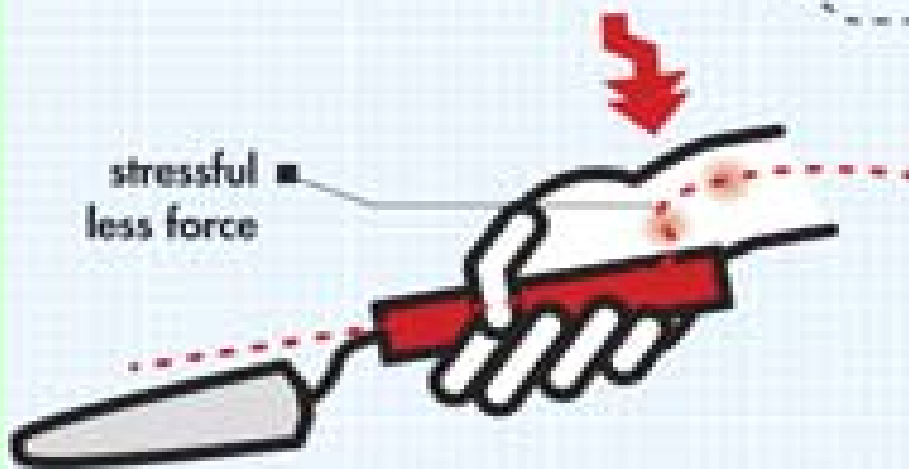


## GOOD

hand and wrist  
in neutral,  
stress-free position



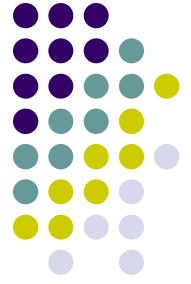
stressful  
less force



## POOR

stretched tendons  
on upper wrist;  
compressed tissues  
on lower wrist;  
callouses on palm





# Extended Grip

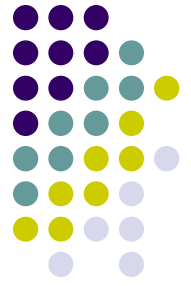


- Provides leverage
- Commercial styles
- Adaptations with PVC pipe



# Long Handle Tools

## Ergonomic Considerations



- Two handed grip is better
- Light weight
- Enlarged, foam, or soft handle
- Reduce resistance with smaller surface
- Shorter length to reduce stretching and twisting

# Light Weight – Long Handled Tools

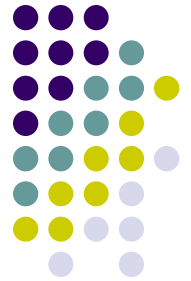


## Expandable rake with telescoping handle

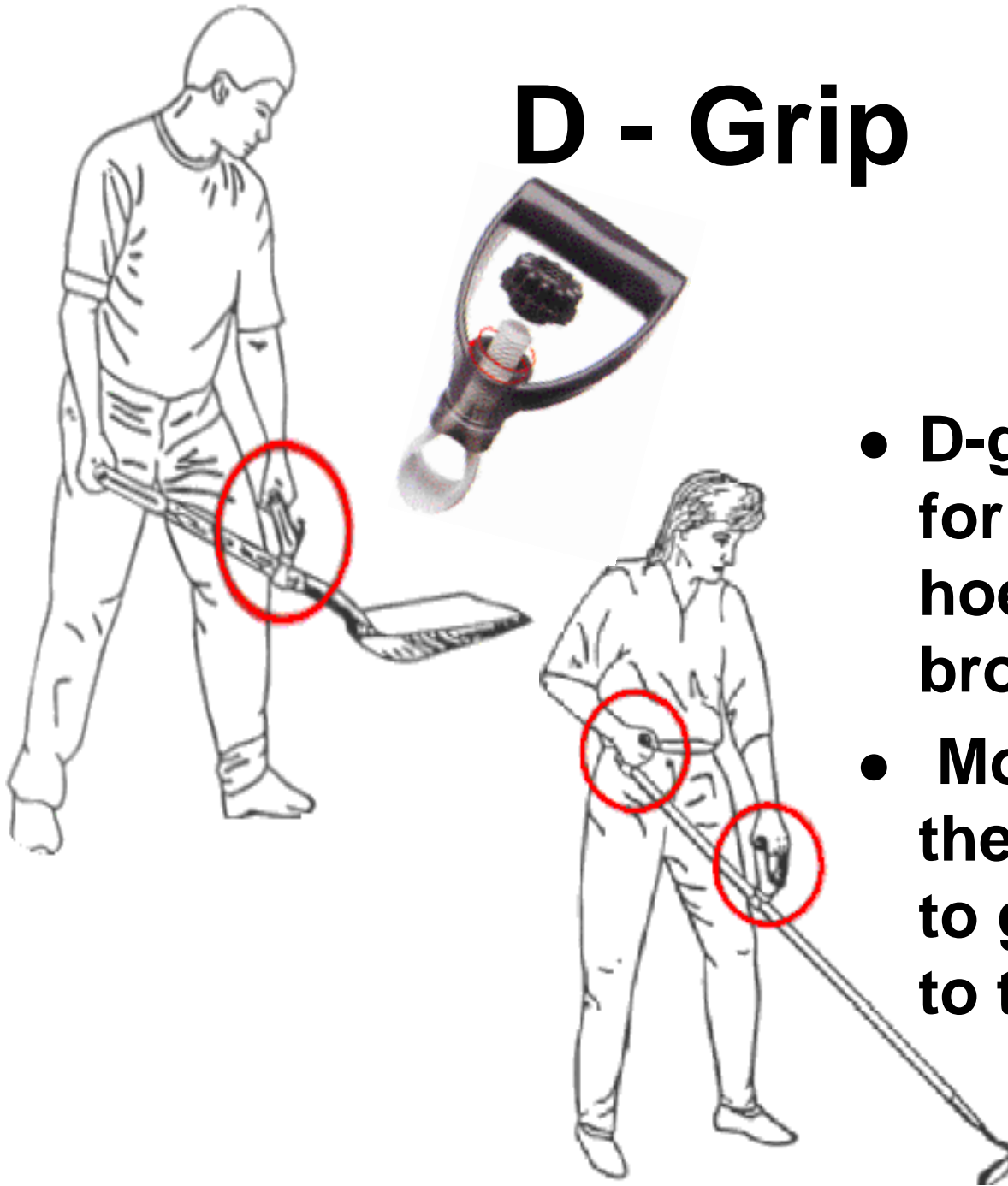
- **Light weight with a telescoping handle**
  - **avoid back strain**
  - **telescoping handle adjusts 35" to 69"**
  - **Rake head expands from 7" 21"**







# D - Grip

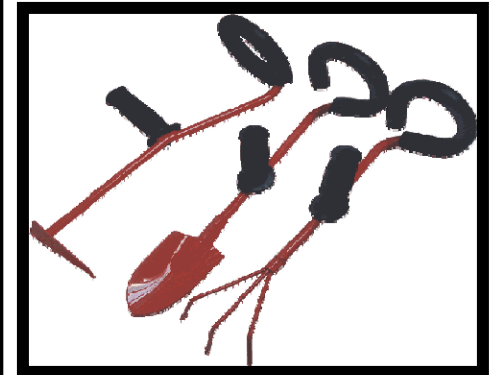


- **D-grip: Tool Accessory for rakes, shovels, hoes, pitch forks, and brooms.**
- **Mounts mid-way down the garden tool handle to give lifting leverage to the forward hand.**

# Specialized Garden Tools



- **Pistol Grip**
- **Stabilized Wrist Support**
- **Adapt with Universal Cuff or Splint**



**Make gardening easier – “Enabling” garden tools are designed for gardeners with disabilities. Tools are specially designed to use less energy and to help keep the body in proper alignment.**

# Specialized Garden Tools



**Pistol Grip Tools**



**Sure Grip Tools**



**Telescopic Tools**

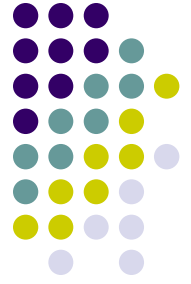


**Braces**





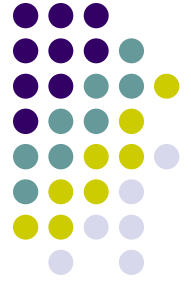
# Modified Garden Tools



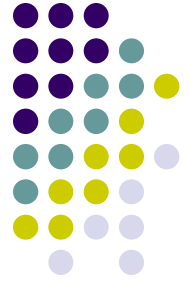
**Adapted Garden Tools** have been adapted or modified to “fit” your specific gardening needs. These tools are usually more appropriate if they are:

- **Small and lightweight,**
- **Have long, large and/or foam-padded handles which are easier to manipulate.**

# Modify Your Garden Tool

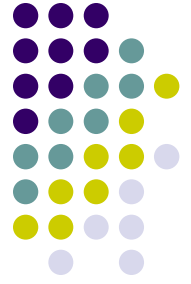


# Modify Your Garden Tool

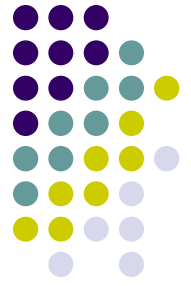




# Modify Your Garden Tool



# Health and Safety



Your body is your most important and valuable tool. As a gardener you can help prevent injury or undue stress when gardening by:

- **Respect pain.** Pain is the body's warning sign that something isn't right. When a garden activity causes pain, **STOP**. Don't be afraid to ask for help.
- Don't be afraid to use an ergonomic, enabling, or adapted tool to make the gardening work easier on you.
- Poor posture can lead to pain, fatigue, and strains. Don't sit slouched over while you garden and don't rest your weight on one leg or one arm while you work.



# Health and Safety



- Avoid staying in **one position** too long. Switch tasks often, going from bending jobs like picking beans to reaching jobs like trimming a vine. Bend, stretch, and move around often to avoid stiffness.
- **Repetitive tasks can lead to injury**; trying to hoe just one more row or pull just a few more weeds—can cause inflammation, tenderness, and pain in joints.
- Use the **strongest** and **largest joints** and **muscles** for the job. Use your legs, not your back, when spading or lifting. Use your forearm and elbow, not your wrist or fingers. Use your palms to push levers or tools, not your fingers.
- Use **splints, supports, and assistive devices** whenever possible, but **ONLY** after consulting with your physician or therapist.



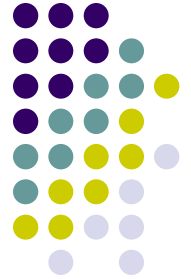
# Health and Safety



- **Save your fingers.** Tools can pinch or cut them, and the repetitive use of the finger, such as in pressing a squeeze-trigger spray bottle, can cause damage to tendons and joints. Alternate finger-intensive activity with less demanding hand tasks, or switch from finger to finger as you work.
- Watch **hands and wrists**, which are particularly susceptible to **tendinitis** or **carpal tunnel syndrome**. Repeated grip-and release movements, like those used in operating pruning shears, are a prime cause of hand and wrist discomfort. Switch from pruning to less hand-intensive work frequently, or alternate which hand you use.



# Health and Safety



- **Carrying heavy objects** like watering containers can cause hand and wrist injury, especially if handles bite into flesh and cut off circulation. Make sure all handles and carrying straps are thick enough to provide you with a comfortable grip. Add comfortable, non-slip padding wherever necessary.
- Protect **elbows and shoulders** from damage caused by excessive **twisting and reaching**. If you garden from a sitting position, make sure your work surface is low enough that you won't have to raise your hands above your shoulders.
- **Protect yourself** from the effects of the **sun**. Wear lightweight clothing, long sleeved shirt, big brimmed hat, eye protection, sunscreen of at least SPF 15, and other protective gear. Avoid being out between 10:00 a.m. and 2:00 p.m. Drink plenty of decaffeinated fluids to prevent dehydration. Also, allow time for breaks in the shade.





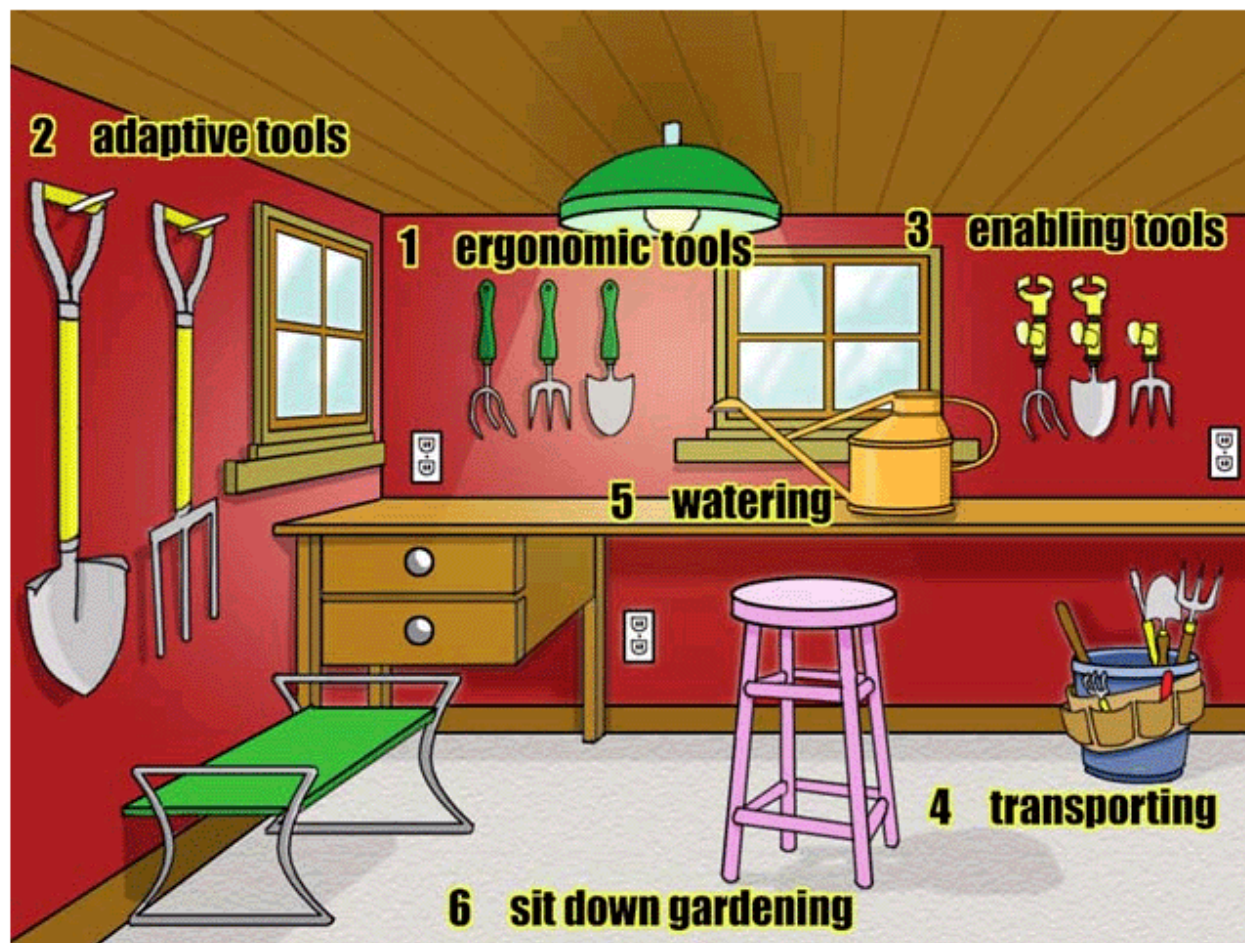
[Container Gardening](#) || [Raised Beds](#) || [Pathways](#) || [Trellis](#) || [Health and Safety](#)

[Special Considerations](#) || [Tool Shed](#)

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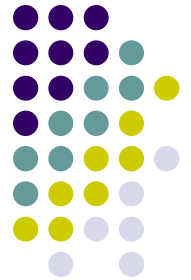
For additional information contact your local Outreach and Extension Service or the Missouri





[Tools](#) || [Transporting](#) || [Watering](#) || [Sit Down Gardening](#)

# Gardening with Arthritis




**Gardening with Arthritis - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Mail News RSS Feeds

Address <http://www.fse.missouri.edu/agrability/GardenWeb/Arthritis.html> Go Links

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## Gardening with Arthritis

Agricultural Engineering Extension: Karen Funkenbusch, MA,  
Stacey Smith, BA and H. Willard Downs, Ph.D.

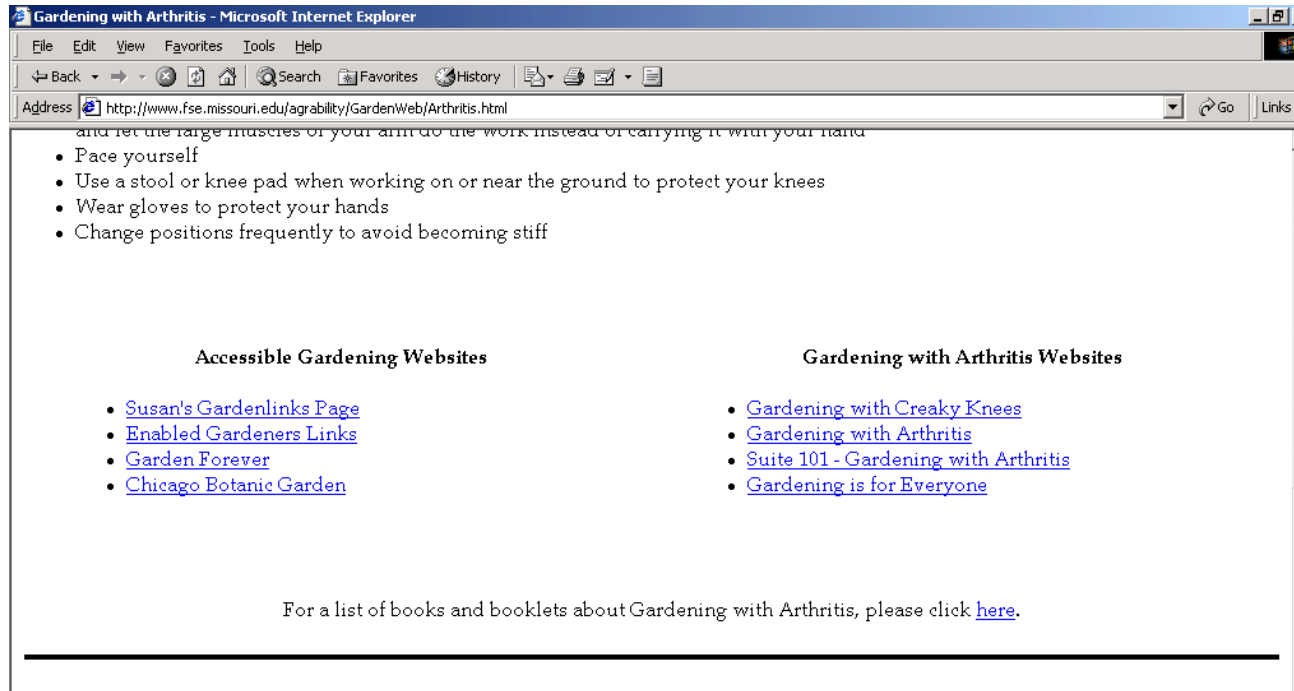
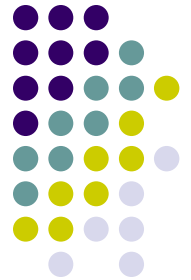
### Gardening Hints for People with Arthritis

Arthritis is one of the most common diseases affecting adults in America today. Gardening can be an excellent treatment for this painful and often debilitating disease. People who have arthritis and garden maintain better flexibility in their joints, a larger range of motion and a enjoy better quality of life than what they did before taking up this calming hobby. As with any activity, there are a few basic tips and techniques that can allow you to better enjoy your time spent gardening:

- Warm up your joints before beginning to garden, do some light stretching to reduce soreness later on
- Keep tools and watering sources near your garden to cut down on extra steps and conserve your energy
- Garden at times when you feel the strongest
- Employ the use of raised beds or container gardens
- Use proper tools and keep them in good condition
- Use the largest muscle group possible to complete a task, for example, when carrying a bag of tools, place the bag on your forearm and let the large muscles of your arm do the work instead of carrying it with your hand
- Pace yourself
- Use a stool or knee pad when working on or near the ground to protect your knees
- Wear gloves to protect your hands
- Change positions frequently to avoid becoming stiff

Done Internet

# Gardening with Arthritis



*Gardens for Every Body*

UNIVERSITY OF MISSOURI - COLUMBIA

Curators of the University of Missouri - Columbia





## Contact:

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