made with materials that can offer convenient areas to sit or rest while working (Figure 4).

Trellises or vertical gardens can also be used to reduce the need to bend over while tending plants.

Containers using light-weight pots and soil mixes can be placed on wheeled caddies for easy and convenient moving (Figure 5).

If you must work close to the ground, place only one knee on the ground and keep back straight. When possible, use a stool or kneeling pad (Figure 3).

Make sure the garden has a nearby water source so that hoses and watering cans don’t have to be carried far. Using drip irrigation systems can alleviate the need to drag hoses and sprinklers around the yard, reducing the strain on joints.

Use mulch in the garden to reduce the need to water.

Have a storage area or tool shed close to the garden so that tools are close at hand.

Use raised beds to avoid bending. Some raised beds can be

Figure 4. Work in raised beds.
For individuals suffering from arthritis, gardening can be a great exercise and stress reducer when done correctly. In fact, gardening is an excellent activity for maintaining joint flexibility, range of motion, and quality of life.

Arthritis is a disease that causes inflamed joints. The two main types of arthritis are osteoarthritis and rheumatoid arthritis. Osteoarthritis is characterized by a degeneration of joint tissue, which can lead to pain and stiffness in the joints. The cartilage that protects the ends of bones wears away. It is most commonly seen in fingers, hips, knees, feet, and the spine but can affect any joint, and is characterized by stiffness, pain, and a loss of mobility.

Rheumatoid arthritis affects the entire body as inflammation in joints or internal organs. If it is left untreated, rheumatoid arthritis can lead to severe deformity or disability. The main symptoms include general aches and pains, fatigue, and fever.

The pain associated with arthritis can be caused by swelling, joint damage, tight muscles, or spasms. It is important to move these joints in order to prevent muscle weakening or stiffening, which can increase pain and discomfort. However, it is also important not to overuse or strain the joints or muscles while gardening.

**General Tips**

Before performing any physical exercise, check with your doctor. Request suggestions for stretches or warm-ups that will loosen muscles and joints before beginning work.

- **Work during the time of day that you feel best.** For example, if you feel stiff in the morning, then save gardening activities for the afternoon.
- **Use low-maintenance plants that require less care, such as perennials instead of annuals, especially in hard-to-reach areas of the garden.**
- **Wear gloves to protect hands from cold temperatures, and to cushion joints from tools.**
- **Avoid working in the same position or doing the same activity for long periods of time.** Switch tasks every 30 minutes or so and take 15 minute breaks every hour. Taking periodic stretch breaks can also ease tension and reduce stiffness.
- **If you feel significant pain, stop the activity and wait until you feel better before continuing.** If you feel pain the day after gardening, then reduce the difficulty and duration of activity you do the next time.
- **Be sure to protect skin with sunblock, a hat, and gloves, as some arthritis medications can make you more susceptible to sunburn.**
- **When possible, use larger, stronger joints and muscles.** For example, use palms instead of fingers to push or pull, and use arms or shoulders instead of hands to carry things (Figure 1).
- **Lift objects by bending at the knees instead of bending the back.** Hold items close to your body to reduce stress on joints.
- **Avoid pinching, squeezing, or twisting motions.** Avoid activities or tools that put direct pressure on fingers or thumbs.
- **Weed the garden after irrigating or rain, as moist soil makes it easier to pull weeds with less resistance.**
- **Ask for help with tasks that are difficult or cause excess stress.**

**Tools**

- **Keep pruners sharp to make cutting easier.**
- **Wear a carpenter’s apron with several pockets for carrying small tools.**
- **Widen tool handles with foam tubing or grip tape to make them easier to grasp (Figure 2).**
- **Avoid doing any activities that require gripping for long periods of time.**
- **Use a wheelbarrow or cart to haul tools and supplies around the garden.**
- **Use ergonomic tools that have long or extendable handles to avoid bending or stooping.**
- **When working close to the soil, use tools with short handles that are lighter and easier to manage. Small, lightweight children’s sized tools may be easier to use.**

**Posture**

Maintain good posture at all times. This keeps joints and muscles in their most stable position. Poor posture can put tension on muscles and joints and lead to unnecessary pain.