Gardening is an enjoyable activity that has been known to reduce stress and maintain muscle strength. Gardening can be difficult with physical limitations. In many cases, a person can adapt “off the shelf” tools and modify familiar gardening techniques to overcome obstacles and challenges when gardening with a physical limitation.

Before starting gardening activities, define the scope of work, emphasize your capabilities, and plan strategies to accomplish tasks. First, identify the tasks and aspects of gardening that maximize endurance and efficiency. This will help save wasted time and energy. Second, list the challenges and barriers to being productive and develop strategies where adaptive equipment and modified tasks can increase productivity and reduce fatigue. The list might look similar to the following table:

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Assistive Technology/ Modified Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited mobility</td>
<td>• Reduce the distance between material storage and the garden.</td>
</tr>
<tr>
<td></td>
<td>• Use an assistive cart or mobility scooter.</td>
</tr>
<tr>
<td>Knee pain (standing long periods of time)</td>
<td>• Use a stool or chair in the garden.</td>
</tr>
<tr>
<td></td>
<td>• Wear a knee brace.</td>
</tr>
<tr>
<td>Fatigue quickly</td>
<td>• Work during the first part of the day when rested.</td>
</tr>
<tr>
<td></td>
<td>• Take breaks every 20 minutes.</td>
</tr>
<tr>
<td></td>
<td>• Alternate between difficult and easy tasks.</td>
</tr>
<tr>
<td>Cannot get up if sitting on ground</td>
<td>• Use a stool or chair in the garden.</td>
</tr>
<tr>
<td></td>
<td>• Create raised bed gardens.</td>
</tr>
<tr>
<td></td>
<td>• Utilize extended reach tools.</td>
</tr>
</tbody>
</table>

**Simple Gardening Style Changes**
- Stretch before and after being in the garden.
- Break the tasks into small increments.
- Set up a series of tasks to avoid backtracking or wasted motions.
- Take regular breaks. Allow your body time to rest and recover.
- Reduce distances needed to carry buckets, tools and supplies.
- Use the correct posture and carry materials close to your body.
- Push/pull tools with palms instead of fingers.
- Cover tool handles with pipe insulation to create cushion grips with a larger diameter.
- Avoid tasks requiring gripping for extended amounts of time.
- Research alternative gardening methods to reduce the amount of weeding and watering required.
- Complete more physically demanding tasks early in the day.
- Ask for help with cumbersome tasks.

**Protecting Joints When Gardening and Preventing Overexertion**
- Pain is a symptom (feeling) that should be respected. If the task causes too much pain, limit that type of activity.
- Avoid stressful positions and change position frequently.
- Use largest and strongest joints or muscles for a task.
- Lift with your legs, not your back.
• Utilize knee, wrist or elbow braces to reduce the stress on those joints during physical activity.

Choosing the Right Tool for the Job

The right tool for the job can have a noticeable impact on the overall gardening experience. Make sure the tool is the appropriate size for the task, and that it is easy to maneuver. Keep tools sharp and in good condition; this allows the tool to do more of the work, creating less stress on the body. Ergonomic tools feature handles that keep the body in a neutral position. Cushioned handles can reduce vibration. Tools with an extended or telescoping handle can maximize a person's reach.

Assistive Technology for the Garden

• Utilize powered equipment to complete strenuous tasks. Battery powered tools can be adapted with attachments to be used for planting, weeding and cutting.
• Water wands with a self-coiling hose can reduce the amount of movement needed to water plants.
• High-quality gripping gloves can protect hands and increase dexterity.
• Use a gardening stool or chair instead of bending over. Consider short stools with three legs for more stability in uneven terrain.
• Utilize a kneeling pad. “Home made” pads could be a pillow or craft foam sealed in plastic to make it waterproof.
• Wearing a carpenter’s apron helps keep track of gardening tools, requiring less bending.
• Use ergonomic handled tools or tools with extendable handles.
• Utilize a two-wheeled wheelbarrow or a lighter plastic/aluminum cart with large wheels to transport materials or plants.
• Provide smooth pathways between garden rows and keep elevation changes to a minimum.

• Garden seeders are readily available. There are several variations to meet specific needs including syringe-type dispensers and trowels with seed dispensers.

Alternative Garden Types

• Container gardening uses pots and planters to create versatility and smaller increments of work.
• Window boxes position the work area at waist level for more comfort in completing tasks.
• Hanging baskets are very versatile and can be adjustable with a basic pulley system.
• Trellises provide a minimum amount of work while reducing the need to bend over.
• Raised beds place the work surface at your desired height to garden from a standing or seated position.

Acknowledgments

This fact sheet was reviewed by Karen Mancl, PhD, Professor, Food, Agricultural and Biological Engineering, The Ohio State University; and Pat Luchkowsky, Director of Public Affairs, Easter Seals of Ohio.

References


Gardening for Every Body. University of Missouri Extension http://agrability.missouri.edu/GardenWeb/

About AgrAbility Based Fact Sheets

These fact sheets were developed to promote success in agriculture for Ohio’s farmers and farm families coping with a disability or long-term health condition. AgrAbility offers information and referral materials such as this fact sheet, along with on-site assessment, technical assistance, and awareness in preventing secondary injuries. Fact sheets were developed with funding from NIFA, project number OHON0006.

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