

Adaptive Gardening

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People in a variety of situations and stages of life find gardening to be a fulfilling endeavor. Studies indicate that gardening provides numerous physical, mental and social benefits. People garden for a variety of reasons, including providing a habitat for wildlife, indulging the senses, learning new things and producing an affordable supply of the fresh herbs, fruits and vegetables needed for a balanced diet. Additionally, people are increasingly interested in knowing where their food comes from and what it takes to grow it. Regardless of the reasons, everyone may find themselves limited in mobility at some stage in life. Several techniques can be used to overcome these limitations, making gardening a rewarding and enjoyable experience for all.

Adaptive Tools

Gardeners can benefit by carefully selecting the right tools to fit their needs and the job. For gardeners with limitations, many tools can be adapted or purchased from companies that specialize in “adaptive” or “enabling” tools. Some examples include tools with handles that are modified to have a larger circumference or are able to strap onto the wrist, gloves with rubberized grips, tools with extended handles to prevent back strain, wheeled seats, stools, kneeling pads, garden carts and brightly colored implements for those with visual impairments.¹

Planning

The first step to successful gardening is to develop a plan. Ask yourself what you are interested in growing. Would you like edible plants, striking foliage or vibrant flowers? What location is available to plant in (large yard, window boxes, vertical planters, etc.)? How much sunlight and space are available? How close is the water source? For more on these planning options, see WVU Extension’s factsheet “*Gardening with Limited Space.*”

Garden Design Considerations

An array of options are available to create growing areas for people with limited mobility. The concept behind each is to modify the garden to each gardener’s individual needs, abilities, resources and interests. The general guideline is to select a logical place. The site must receive eight hours of sunlight daily, be close to water, have a good growing medium, be in a convenient location and have seated work access if needed. To be safe, the area should be level, firm and free from obstacles.

Benefits of Gardening

Mental

- Relieves stress
- Provides therapeutic benefits
- Increases cognitive strength
- Brings satisfaction through talents
- Increases independence
- Increases talents

Physical

- Regulates blood pressure
- Provides exercise
- Increases nutrition access
- Aids joint fluidity
- Refines motor skills
- Improves bone density

Social

- Provides interaction with nature
- Forges inter-generational connections
- Allows for creative expression
- Increases appreciation of aesthetic aspects
- Develops self-confidence
- Provides for social connections and activities
- Develops connection to heritage
- Increases sense of purpose or pride

¹A list of companies that offer adaptive tools can be found at the West Virginia University Center for Excellence in Disabilities website (<http://agrability.cedwvu.org/agricultureinwv2002.php>).

Issue	Possible Solutions
Limited mobility	<ul style="list-style-type: none"> -Reduce bending by using a container, straw bale, table top or raised bed - Provide seating areas - Have water and tools close by - Try social gardening (shared tasks) - Look for tools in shapes and sizes suited for the task
Wheelchair use	<ul style="list-style-type: none"> - Try raised beds (min. of 27" height), vertical gardening, table planters, hanging gardens or raised containers with smooth, wide pathways in all areas
Arthritis	<ul style="list-style-type: none"> - Look for adaptive tools that are lightweight and have larger, rubberized and longer handles (require less bending) - Try raised beds, tabletop gardens, straw bales and vertical gardens - Have benches available
Temperature sensitivity	<ul style="list-style-type: none"> - Garden in the mornings and evenings during cooler temperatures - Drink water often - Dress appropriately and use sunscreen - Try shade gardens
Easily tired	<ul style="list-style-type: none"> -Plant and work in small areas -Choose plants that are easy to grow and require little maintenance -Use management practices to reduce weeds
Visual impairment	<ul style="list-style-type: none"> - Try vertical plantings - Choose plants that appeal to the senses (textures and scents) - Use larger seeds or plant as transplants - Choose brightly colored plants and tools
Cognitive or memory issues	<ul style="list-style-type: none"> - Use simple plantings - Choose sentimental or familiar plants - Consider social gardening activities
Limited space	<ul style="list-style-type: none"> - Use container gardens, window boxes, hanging baskets and community gardens

If the gardener uses a wheelchair, the walkways should be at least 48-inches wide and be composed of a firm, but “gripable” surface such as asphalt, gravel or concrete. Additionally, raised surfaces should be built to the height of at least 27 inches. The width of the planter should allow the gardener to easily reach into the center from each side (no more than 48 inches if accessed from either side, or 24 inches if accessed from a single side). The height should be adjusted to meet the gardener’s bending and reaching abilities. Materials used to construct beds or containers should be durable and functional; wood treatment chemicals such as creosote or pentachlorophenol should be avoided for food safety.

Plant Selections

Plants with bright colors, interesting textures and appealing scents can be exciting choices. Many herbs, fruits and vegetables provide attractive foliage in addition to an edible crop. When selecting plants for the garden, consider the mature size of the plant. Sufficient soil depth and good soil drainage is needed for root growth. Some crops can be planted directly from seed, but others, such as tomatoes, do best from transplant. For more information on when to plant for your area, consult your county WVU Extension Office or the WVU Extension Garden Calendar. For more information on spacing requirements, see WVU Extension factsheet “*Gardening With Limited Space*”.

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