



# The Power of Plants: The Healing Properties of Horticultural Therapy

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Dr. Benjamin Rush, recognized as the Father of American Psychiatry, was the first person to document the positive effects of horticulture on individuals with mental illness. In 1768, he maintained that digging in the soil had a curative effect on the mentally ill, and in 1812, published findings that patients who worked in gardens had better recovery rates from mania compared to those who didn't have the same gardening experience. Since then, there

has developed a fascination with harnessing the power of people-plant interactions, especially in the field of horticultural therapy.

Horticulture is not a [new therapeutic tool](#)—when injured WWII veterans were admitted to Veterans Administration hospitals, physicians used on-site gardens, donated and planted by garden clubs and horticultural businesses, specifically for rehabilitation therapies. This rehabilitative effort significantly expanded acceptance of the practice and gave it more credibility in the medical field. Today, horticultural therapy is widely accepted as a beneficial and effective therapeutic practice. In addition to hospitals, it's used in assisted living facilities, substance abuse centers, vocational schools, correctional facilities, public and private schools, and mental health centers.

So what exactly is horticultural therapy?

According to the [American Horticultural Therapy Association](#), horticultural therapy is a time-proven, evidence-based process and practice of using plants and gardens in human healing, rehabilitation, and training. It involves customized activities and programs with treatment goals and objectives under the direction of a trained and credentialed horticultural therapist.

What separates it from other types of gardening is the presence of clients, goals, and treatment activities that are customized with modifications and adaptations. According to Laura DePrado, president and founder of [Final Touch Landscaping, LLC](#), and Registered Horticultural Therapist (HTR), “With gardening, you’re growing plants—it’s that simple. Horticultural therapy is helping a person or group of people in an activity using seasonally related plants in purpose and meaning for success.”

## Types of horticultural therapy programs

There are three main ways in which horticultural therapy is used: socially, vocationally, and therapeutically.

### ***Social horticultural therapy***

In [social horticultural therapy](#), sometimes referred to as community horticulture, participants socialize with others, develop communication and thinking skills, and learn practical skills that will help them become more independent. No treatment goals are defined, no therapist is present, and the focus is on social interaction and horticulture activities. “One activity very well may be something like coming together in an existing outdoor space for social interaction, for engagement with the natural world and with each other,” says DePrado.

## ***Vocational horticultural therapy***

In vocational horticultural therapy settings, people learn to work independently, problem solve, and follow directions. “So if we’re starting seeds, we might be doing that to learn a vocation, to learn how to grow plants in horticulture and having it become our job,” says DePrado.

## ***Therapeutic horticultural therapy***

Therapeutic horticultural programs largely take place in a hospital or rehabilitative setting. These programs help patients with an identified disability, illness, or life circumstance, and their families.

## **How does horticultural therapy work?**

According to DePrado, horticultural therapy practitioners use a variety of methods to achieve results such as creating sensory-stimulating environments with plants selected for fragrance, texture, and color, using greenhouses for year-round activities and programs, and taking advantage of therapeutic gardens.

According to Amanda Hogle, CTRS, certified therapeutic recreation therapist at Shriners Hospital for Children – Chicago, working with plants, and in nature, has an inherent ability to calm and focus the mind allowing for progress in specific goal areas. “Our weekly Horticulture Therapy session with the Chicago Botanic Garden always has a variety of goals that are unique for each participant,” says Hogle. “The same activity can be used to work on one patient’s fine motor skills while another patient may be working on developing appropriate conversation skills.”

Vision, hearing, touch, taste, and smell all play an important role in gaining the full benefit from a horticultural therapy program. According to Hogle, the sensory stimulation between the patient and plant (i.e., fragrances and textures) naturally calms and shifts the focus of medical concerns and stressors to completing an activity. “We have included specific plants in our serenity garden that give off scents that are calming,” says Hogle. “This calming effect comes from slowing down the nervous system and relaxing the body. Those smells may also be comforting because they remind our patients and families of spending time outside in their gardens at home, at the park with friends, or on a family camping trip.”

DePrado maintains that by using specific herbs, flowers, and plants to stimulate our five senses, those participating in horticultural therapy programs can reap amazing benefits. “Your eyes are stimulated by the beauty of colors and shapes year round, your ears by the sound of birds, bees, and water, and the sense of smell from fresh herbs.”

Below is a list of some of the plants used in DePrado’s horticultural therapy programs for their safety, colors, textures, sizes, shapes, and fragrances. Note: this list is approved by each facility clinical director, recreation therapist, or director of activities in advance.

# ***Plants used in DePrado's horticultural therapy programs***

## **Herbs**

- **Lavender**
- **Lemongrass**
- **Lemon verbena**
- **Lemon thyme**
- **Thyme**
- **Sage**
- **Rosemary**
- **Mint**
- **Basil**

## **Flowers**

- **Chamomile**
- **Calendula**
- **Hydrangea**
- **Viburnum**
- **Roses (no thorns)**
- **Liatris spicata – Blazing Star**
- **African marigolds**
- **Sunflowers**
- **Carnations**
- **Baby's Breath**
- **Daisies**

## **Plants**

- **Lamb's ear**
- **Sage**
- **Canna leaves**
- **Oak leaf hydrangeas**
- **Magnolia leaves**
- **Bark of birch trees**
- **Crepe myrtle**
- **Succulents**
- **Vegetables**

# Who benefits from horticultural therapy?

The benefits of horticultural therapy are universal. At Shriners Hospitals for Children – Chicago, participants in the horticultural therapy program include patients who are at the hospital long-term for rehabilitation, patients who are recovering from surgery, local patients with various disabilities, and their families. Shriners horticultural therapy patients have a variety of orthopedic conditions, spinal cord injuries, and general anxiety from being in a hospital setting.

“Our horticulture therapy groups include kids from ages three to eighteen who have physical, cognitive, and emotional disabilities working alongside able-bodied siblings and parents,” says Hogle. “Horticulture therapy is one of the interventions utilized by our recreation therapy department to provide normalization, decrease anxiety, and provide opportunities for socialization, as well as incorporate specific goals from their treatment plan throughout a patient’s hospitalization.”

Other groups that can benefit from horticultural therapy include veterans, at-risk youth, and those who struggle with dementia, autism, traumatic brain injuries, or cardiac issues, to name a few.

Hogle recalls an instance when a patient’s mother interacted with plants as a form of personal therapy.

*We had a patient who had been here for at least six weeks and was scheduled to be here for an additional four weeks. Our rehab patients who are here long term have four to five hours of therapy each day. The parents, however, have a lot of time on their hands. Both patient and parent are learning a new way of life.*

*The parent of this patient in particular maintained a large garden at home. I had noticed that our pots and raised planters had been kept watered and pruned especially nice over the past few weeks, which I happened to mention to the patient during one of treatment sessions. The patient responded, “Oh, that’s my mom. She misses her plants at home, so she takes care of the ones here.”*

*Not only was this parent helping out our staff that works to maintain the garden, but the garden was giving her an outlet to partake in an activity that is familiar to her. Pulling weeds, deadheading, and watering (which many dread having to upkeep) was cathartic for this mom, whose world had been changed drastically. Having that time to decompress from the stress and anxiety of a long term hospitalization with her daughter gave her the strength and patience that she needed to be positive and care for her daughter.*

*So, as much as horticulture benefits those with various disabilities, it is also just as therapeutic to those closest to them.*



## **Benefits of horticultural therapy**

Horticultural therapy affords a variety of physical, cognitive, emotional, and social benefits. Some of the most surprising benefits are improved stamina and flexibility and improved vocabulary and communication skills.

### **Physical benefits**

- **Strengthens muscles**
- **Improves coordination, stamina, and flexibility**
- **Helps with balance and endurance**
- **Develops fine and gross motor skills**

### **Cognitive benefits**

- **Improves memory and other cognitive abilities**
- **Fosters task initiation**
- **Improves vocabulary and communication skills**
- **Arouses sense of curiosity**
- **Increases observational power**

## Emotional/social benefits

- **Encourages socialization**
- **Improves self-esteem and confidence**
- **Enhances state of mind by making you more connected and aware of nature**
- **Fosters community and breaks down barriers**
- **Helps relieve stress and feelings of anger and aggression**

Horticultural therapy is also a great opportunity to introduce participants to a new activity. “Many will take pride in the project they complete during our horticulture therapy sessions,” says Hogle. “Especially in today’s technology-driven activities, not a lot of kids are familiar with planting and caring for a garden space.”

## Can horticultural therapy be performed at home?

Because structured horticultural therapy requires a trained horticultural therapist, tailored sessions and programs, and a more formalized environment, this practice can’t be done at home in its medicinal sense. However, you can still reap the therapeutic benefits of plants in the comfort of your home.

DePrado recommends creating a kitchen window [herb garden](#) or starting flowers from seed.

Here are a few other ways you can enjoy the therapeutic benefits of plants:

- **Grow [marigolds](#) in containers or in your garden. They have antiseptic properties and can be used to soothe the skin.**
- **Cultivate [plants that attract pollinators](#), like butterflies, bees, and beetles.**
- **Use your imagination and create a [vertical vegetable garden](#).**
- **Take advantage of a sunny window in your house and create an [indoor vegetable garden](#).**
- **For those without a green thumb, tend to one of these [easy-to-maintain house plants](#).**



## ABOUT THE EXPERT



Laura DePrado is the president and founder of [Final Touch Plantscaping, LLC](#), a Registered Horticultural Therapist (HTR), and a pioneer in deepening the awareness and credibility of horticultural therapy. She's also a columnist, published author, garden and flower photographer, and brain tumor survivor.



## ABOUT THE EXPERT



Amanda Hogle is a recreational therapist at Shriners Hospitals for Children – Chicago. Amanda has a BA in Therapeutic Recreation with a minor in Psychology from Grand Valley State University. She interned at both Mary FreeBed Rehabilitation Hospital in Grand Rapids, MI, and the Rehabilitation Institute of Chicago. She is the lead recreational therapist on the spinal cord injury and rehabilitation team at the Chicago Shriners Hospital and a member of the Academy of Spinal Cord Injury Professionals and the Chicagoland Adapted Sports Recruitment Sub-Committee.