

Rooted in Wellness

The Healing Benefits of Gardening, Food and Nature Connection

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Hopes for today:

- Learn about how connection to nature/gardening/food systems can support health and well-being
- Learn about the UVM Medical Center's Culinary Medicine program
- Experience some strategies for being more mindful/tuning into surroundings while in a garden/natural setting or indoors



Prompt

- **Think of a time when you experienced “awe” in nature.**
 - Where was it?
 - Who were you with?
 - How did you feel?



My Story



UVMHC Culinary Medicine

At the University of Vermont Medical Center, we know that healthy food systems and nutrition play a critical role in wellbeing.

The mission of our Culinary Medicine program is to nourish health in our community through the experience of food, the science of nutrition, and the wonder of the natural world.



Foundational Principles of Culinary Medicine

- We strive to create safe spaces that incorporate the principles of patient and family centered care, accessibility, and inclusion.
- We focus on what we have in common – developing common language to talk about food and health, sharing resources and support among all our patient and practitioner partners.
- We provide empowering experiential learning opportunities designed to promote curiosity and self-efficacy in patients as they move toward their vision of optimal health.
- We recognize that we depend on natural resources to sustain ourselves and promote healing and mutually beneficial relationships among individuals, communities, and the natural environment.
- We believe that feeling “awe” and a connection to what we eat and where it comes from are vital to self-care and our experience as humans



What is Culinary Medicine?

- Culinary medicine is an evidence-based field in medicine that blends the art of food and cooking with the science of medicine.
- Culinary medicine is aimed at helping people reach good personal medical decisions about accessing and eating high-quality meals that help prevent and treat disease and restore well-being.
- Special attention is given to how food works in the body as well as to the sociocultural and pleasurable aspects of eating and cooking. The objective of culinary medicine is to attempt to empower the patient to care for herself or himself safely, effectively, and happily with food and beverage as a primary care technique. (LaPuma, J. 2016)



Culinary Medicine Practitioners

Interdisciplinary and Integrative team-approach

- Registered Dietitians
- Licensed Food Service Professionals – Chef Educators
- Food Systems Educators – Garden Educators, Compost Educators, Herbalists, Soil Scientists, etc.
- Nurses, Physicians, PTs, OTs, etc. help to integrate programs



UVMMC Public Spaces

- **The Learning Garden** at the Fanny Allen campus
 - Located behind the urgent care building
- **The Rooftop Garden** at the UVMMC Main campus
 - Outside the Garden Atrium Cafe

Both are therapeutic spaces that are open to the public 24/7 where we teach classes and grow produce and flowers for donation.



Clinical Programs

- **Skills Before Pills** – South Burlington Adult Primary Care
- **Kaleidoscope** – Children's Specialty Clinic
- **Farm Shares for Health**
- **Through the Cooking Class** – Osher Center Comprehensive Pain Program
- **Gardening for Health** – Rooftop Garden

Base curriculum and program administration for our clinical programs can be adapted to meet the specific needs of various patient populations.



Community Programs

- **The Learning Garden Program**
- **Food and Mood** – with Primary Care Mental Health Integration
- **Harvest Health Academy** (coming summer 2025)



Educational Programs

- **Workshops, Webinars, Classes**
 - Current partners
 - UVMHC Employee Wellness
 - UVMHC Vermont Center for Children, Youth and Families
 - UVM Employee Wellness
 - UVM Honors College
 - UVM College of Nursing and Health Sciences
 - UVM Larner College of Medicine
 - UVM Osher Center for Integrative Health
 - Future partners
 - UVMHC Spiritual Care
 - UVMHC Art from the Heart
 - UVMHC PACT
- **Free resources**
 - Downloadable Recipe cards & Highlighted Recipes
 - YouTube channel “What’s That Food?” series
 - Healthsource Articles
- **Visit uvmhealth.org/culinary-medicine**



Aspects of therapeutic or healing garden design

- **Accessibility:** wide paths, paving, seating and raised beds
- **People/plant interactions:** plant-dominated open spaces promoting year-round opportunities to connect to nature
- **Sensory Stimulation:** flowers, herbs, vegetables, pollinators, birds, etc. engage all the senses
- **Opportunities for social interaction through programming:** areas for group gathering and shared scheduled activities
- **Cultural and Personal Relevance:** plants reflecting local traditions or individual preferences
- **Sustainable landscaping and wildlife support** – habitat for pollinators and wildlife, healthy soils, organic practices, efficient irrigation
- **Purpose:** designed to promote relaxation, stress reduction and emotional well-being

Open to everyone – patients, families, children, caregivers, providers, employees, visitors, etc.



Why gardening, cooking and being in nature feels good

Our ancestors understood the critical connection that humans had to the natural world and relied on it for their sustenance, health, shelter and protection. Gardening provides an opportunity for us to reconnect with nature and realize its many benefits. Gardening, cooking and spending time outdoors can help our bodies and our minds to feel better. Gardening has positive impacts on our five domains of wellness.

Benefits to mind, body and spirit!

- Cognitive Benefits
- Physical Benefits
- Social Benefits
- Emotional Benefits
- Creative & Spiritual Benefits



Biophilia and evolution

- **Biophilia** – the concept developed by biologist E.O. Wilson who believed that since we evolved in nature, all humans have a biological need to connect to other living things in nature
- A vast majority of our species evolved time on earth has been spent in deep connection with nature and living in community, supporting each other to survive
- Less than 1% of our species evolved time has been in urban settings – indoor focused and disconnected from the natural world
- Disconnection from nature affects mind, body and spirit – increases anxiety



“We are hard wired to affiliate with the natural world – and just as our health improves when we are in it, so our health suffers when we are divorced from it.”

Dr. Qing Li, Forest Bathing

Soft fascination – inside vs outside

Soft fascination originating from Attention Restoration Theory (ART) developed by environmental psychologists Rachel and Stephen Kaplan.

Inside

- Lots of task switching
- Need to filter out a lot of input
- Activates sympathetic response (fight/flight) which can result in headaches, anxiety and heart racing
- Increases stress and anxiety

Outside

- Gentle engagement takes less effort and is more involuntary
- Allows for a system reset – escape from routine
- Nature has restorative benefits to mental fatigue
- Activates parasympathetic relaxation response
- Come back refreshed with increased focus and ability to think more creatively



Physiology and Nature-based therapies/strategies

Physiological benefits of nature connection:

- Lower cortisol levels
- Drops heart rate & blood pressure
- Production of Vitamin D
- Increase in NK cell activity
- Boosts immunity
- Decrease in anxiety/depression
- Helps our sleep patterns



Nature-based therapies/strategies:

- Horticultural Therapy
- Therapeutic Horticulture
- Forest Bathing – Shinrin-Yoku
- Earthing/Grounding
- Gardening
- Walking on a beach
- Hiking
- Looking out a window to a view
- Looking at nature-based images online
- Nature Rx & Campus Rx

Human health is connected to planetary health

- Healthy body = clean water, nourishing food, good quality sleep, movement, clean air
- Healthy Mind = on social, emotional and psychological levels
- Healthy Spirit = having a sense of purpose, connection to others, feeling that you are part of something greater than yourself

We are nature – not separate from it.

We are in a deeply interconnected system – we breathe what the plants exhale and v.v.

Microbiome in soil supports microbiome in our gut

Understanding this relationship is critical to our survival as a species

Healthy planet = Healthy people.

"Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself."
- Chief Seattle (1854)





Deepening your
connection

Tuning into
your senses
with curiosity
and
“awe” lenses



Look

- Views in healthcare settings – less pain medication and shorter hospital stays
- Blues and greens can be most restful – reassuring on a primitive level (green = water = food)
- Fractals – patterns in nature that repeat themselves can be relaxing – start noticing them – spirals, branching patterns, unfurling ferns, ripples in water, snowflakes – notice how you feel after you take a moment to focus on them



Listen

- Nature sounds activate parasympathetic relaxation response and attention turns outward
- Artificial sounds turn focus inward
- For ancestors – water = safety
- Physiological studies show that most relaxing sounds are water, wind and birdsong
- Be more still in nature – slow down, focus on breath and closing eyes helps you hear more intensely



Smell

- Our most primal sense
- Essential oils – scents can be range from energizing to relaxing
- Phytoncides – chemicals that protect plants – breathing them is shown to increase NK cell activity – especially with evergreens like hinoki



Touch

- Happy soil – microbes in the soil can help increase serotonin levels
- Earthing/grounding – there is a different electrical charge in earth – bare feet on the ground facilitates electron transfer which helps decrease stress and inflammation (neutralizes free radicals & can help sleep quality)
- Negative ions near water also helps us to feel better



Taste

- Nutrient density is higher in food we grow ourselves or is locally produced
- Soil microbes we ingest support our gut bacteria
- Diversity of types of food and fibers helps feed a greater variety of our gut bacteria which support the health of our gut lining, reduce inflammation and help our immune function
- A healthy gut microbiome helps us to feel better (our brains) and be healthier



Awe

- The feeling of wonder and amazement at being in the presence of something vast that transcends one's current understanding (Keltner & Haidt, 2003)
- Can take you out of your head - bring one from ego to eco-centeredness
- Can help people to act with more kindness and generosity
- Increases positive mood
- Can find it anywhere – vast or small, on tv, inside and outside



Mindful eating experience



Nature Journaling

Nature journaling is a wonderful way to connect with the environment, use your observation skills, and express your creativity. As you explore, take time to really notice the details...the colors, textures, and patterns in the leaves and flowers, the way light filters through the trees, or the delicate design of a spider's web. You can draw pictures or write about what you find interesting. Choose a quiet spot to sit outside or look out a window and open your senses. What do you see, hear, smell and feel? Let your imagination flow onto the pages. Use the prompts below as a guide.

- **Date, Time, Location, Weather**
- **I notice....**
- **I notice about myself...**
- **I wonder...**
- **It reminds me of...**
- **I am hopeful/grateful for...**



Noticing Nature

In our fast-paced lives, it's easy to overlook the beauty and tranquility that surrounds us. This activity invites you to pause and immerse yourself in the present moment. Choose a quiet spot to sit outside or look out a window and open all the senses you have available to you. Even if you can't step outside, you can still connect with the natural world and cultivate mindfulness by engaging your senses. As you settle in, take a deep breath and let the world outside or beyond the glass come into focus. Take a moment to notice:

- **Five colors that catch your eye** – green leaves, blue sky, browns and pinks in winter
- **Four living plants/animals you see** – even in winter plants are still alive preparing for renewal in spring
- **Three sounds drifting through the air** – leaves, birds, conversations
- **Two scents that evoke** – consider opening a window or recall scents that you love
- **Finally, reflect on one feeling you have about yourself in this moment** – connect your inner world with the outer beauty you see before you



Connecting to nature/food system in daily life

Tune in and notice. Remember one size does not fit all.

- Find your windows with a view or sit spots and use nature journaling prompts
- Welcome curiosity and seek out “awesome” moments – move beyond thoughts of self
- Tune in and use all your senses
- Focus on breath - inhale deeply and try exhaling longer and more fully
- Listen to nature sounds
- Smell herbs or diffuse essential oils (try hinoki)
- Take time in your day to rest you brain with soft fascination – look up & out window, do a guided meditation
- Earthing/grounding - take your shoes off
- Move – walk, yoga, qui gong
- Grow microgreens indoors during the winter
- Focus on diversity of what you eat and include more whole foods – eat a rainbow
- Cook – try using a new plant/herb/ingredient in cooking and share a meal with others
- Practice mindful eating and gratitude
- Therapeutic horticulture – propagate plants, arrange flowers, make herbal sachets, etc.
- What might you take away with you from today and try?



Resources

Further reading:

- Braiding Sweetgrass, Robin Wall Kimmerer
- Forest Bathing, Dr Qing Li
- Half Earth, E.O. Wilson
- Healing Spaces, Esther M. Sternberg, M.D.
- The Nature Fix, Florence Williams
- The Nature Principle, Richard Louv
- Second Nature, Michael Pollan
- This Is Your Brain On Food, Uma Naidoo, M.D
- We Are the Ark, Mary Reynolds
- The Well Gardened Mind, Sue Stewart-Smith



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Questions?

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