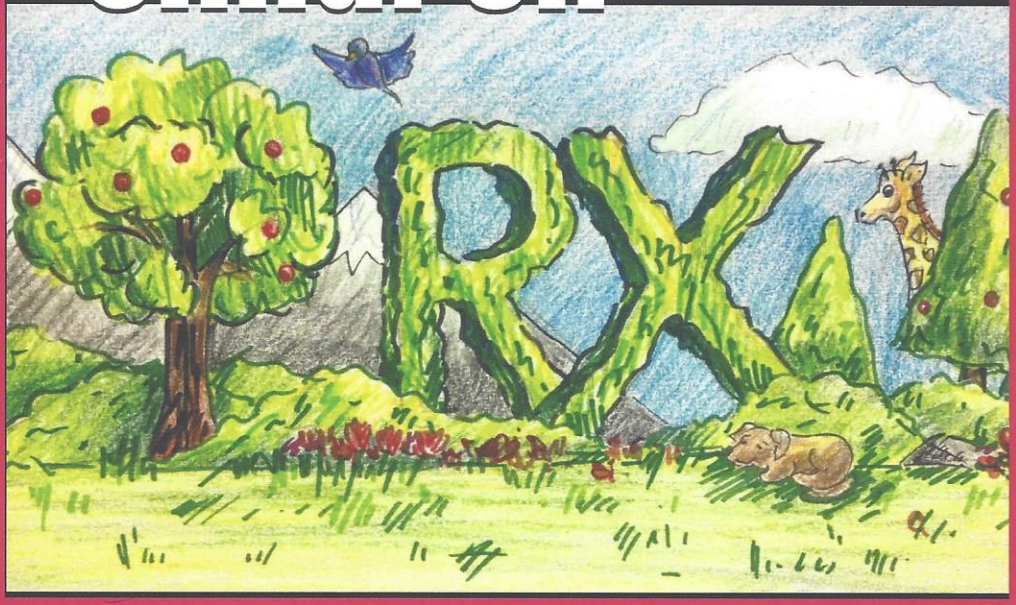
Tickled Green: Therapy for Abused and Special Needs Children



Green Therapy Rx promotes "green therapies" to help abused and special needs children by giving them a place to heal without judgment or fear.

Kristen first became involved with special needs as a swimming instructor for children with autism. Seeing the positive effects, she formed Green Therapy Rx.

ISBN 9781717927095

GREEN THERAPY FOR ABUSED & SPECIAL NEEDS CHILDREN

by

KRISTEN SARDIS

Contributing Authors

Matthew Sardis & Trevor Sardis

Medical Consultant

Maryann Khoudary, MD, JD

Dedication

Dedicated to all of the abused and special needs children who need all of the support and solutions to help them heal.

Support Green Therapy Rx

Camp Weahqua, Inc, is a 501(c)(3) organization doing business as Green Therapy Rx. All donations qualify for federal income tax deductions. Please visit our website at www.greentherapyrx.com where you can view recent news, contact us and make a donation. Every dollar counts. So, anything you can do yourself or by encouraging your family and friends would help so many abused and special needs children. Every penny goes to support the cause. All workers are volunteers and expenses are paid by through separate donations.

Acknowledgments

Thank you to all of the participants and supporters of Green Therapy Rx.

Illustrator

The cover of this book was illustrated by Jennifer Huang.

Jennifer Huang has had a passion for art ever since she was five. She has experimented and worked with many different mediums, including pencil, watercolor, acrylic, and pastel to express herself in creative ways. Jennifer's art has been published in a few books and featured in several art shows, including art shows for charity, mental health awareness, and environmental issues.

Thank you to Jennifer for this contribution and her other artwork to support the cause that appears on our hats and shirts for fundraising and awareness

Disclaimer

This book and its ideas are the interpretations of the author. They are not intended to constitute or replace medical advice. No one should rely upon the information in this book and should seek the advice of a qualified medical professional first and foremost.

NOTE FROM THE AUTHOR

Green Therapies are “activities, behaviors, and interventions that use nature and natural products to achieve good health in mind, body, and spirit.” Let’s explain each aspect of that definition.

“Activities” are discrete techniques that can be learned by an individual, usually added to the individual’s existing lifestyle. A “behavior” is a consistent pattern of action that can be simply incorporated into a daily routine. An “intervention” is a specific, targeted remedy aimed at a particular issue. “Nature” is, of course, the space on the other side of our front doors. A “natural product” is an unprocessed or easily available product. “Good health” is the optimal state of functioning. “Mind, body and spirit,” refers to our mental lives, physical body, and spiritual sense of self. So when you put it all together, a Green Therapy are just techniques designed to create optimal functioning in our lives.

It’s important for me to add that Green Therapies were specifically designed with the needs of special needs individuals

in mind. For individuals with autism, Alzheimer’s disease, dyslexia, Asperger's, dementia, depression, or PTSD, Green Therapies can transform and uplift.

We all have difficulties in our lives, and we all know some people who are having a harder time than others. But as human beings, we are not slaves to our difficulties. We can choose actions and behaviors that will improve, even transform, our experience. That path is known as Green Therapy. We are happy to share our experiences and ideas with you through this book.

Sincerely,

Kristen Sardis

PREFACE

Raising awareness and educating people about "green" therapies is important. This book seeks to do just that. But also, this book serves to help raise funds for Camp Weahqua. Proceeds from this book will be donated for that purpose. Camp Weahqua is a charity that promotes "green therapy" activities for people who have been abused or have special needs. The camp is located in the Golden Pond settlement area of New Jersey, and it is surrounded by many beautiful, natural resources. These natural resources are used to promote health and healing in people who have a variety of developmental, emotional, and physical problems.

Camp Weahqua traces its roots back to the late 1950s and early 1960s when the author's great-grandmother operated the camp. The camp served diabetic children from the South Orange, New Jersey, area with diabetes. The camp's original location was on Camp Weahqua Road in Johnsonburg, New Jersey. Legend claims this road was named after a Native American chief who once lived in the region. During the 1960s, the camp became

hard to maintain, and the land was placed in a woodland management program. When it was placed in the program, the camp consisted of 350 acres. But in the 1990s, three hundred acres of wetlands and limestone forests were sold to conservation groups and retained the remaining land. The land remaining in the camp consisted of farmlands, a pond, and the farmhouse. Anthony Sardis took over the management of these remaining fifty acres, operating it as an organic farm.

Anthony Sardis showed the property to his four children in 2011, and they began asking questions about the property's heritage and history. Upon learning of Camp Weahqua's history for serving diabetic children, they decided to maintain the family's tradition of using the property to serve people with special needs. As a result, Tony and his children formed a nonprofit organization in the summer of 2011 to pursue their dream. To help support this dream, proceeds from this book describing green therapies are being donated to their organization.

The contents of this book can be used in different ways. First, the information can help educate children as well as adults about the numerous benefits that green therapies provide for health and healing. Information about specific green therapies and their uses can help children and adults understand their importance. Second, this book can also serve as a resource for teachers and volunteers in explaining to others about green therapies and when these treatments might be used. This book contains several real-life anecdotes of how people have used and benefited from green therapies, demonstrating practical uses for such therapies. Such stories, written in straightforward language, can be used to help both children and adults appreciate the benefits of green therapies.

As this book will describe, green therapies offer natural and holistic approaches to health. These natural therapies have not been a common part of the treatment plans of many doctors and physicians in the recent past. Scientific approaches to medicine have ignored many of these natural remedies, which have been around for centuries. But this thinking is changing.

Many doctors and health workers now appreciate our need to connect with nature. Green therapies are not only more natural, but they are often less expensive than prescription medicines, surgeries, and other treatments. Green therapies are not meant to replace other medical treatments or cause patients to miss visits to their doctors. However, green therapies should be considered a part of a complete package in treating many health conditions. Green therapies are also helpful in promoting good health so illness is less likely. The information in this book hopes to inform readers about the advantages and benefits green therapies can offer. As a result, this information can then be used to help people become healthier overall while avoiding some of the costs and side effects from other types of treatments.

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CHAPTER 1

WHY THE NEED FOR GREEN THERAPIES?

What exactly are green therapies? Do they represent some type of vegetable diet or some new environmental trend? To some degree yes; but green therapies represent a broad group of treatments to help promote health. Other names for green therapies might include natural therapies, homeopathy, and even holistic care. All of these therapies are natural options to help people become healthier. Green therapies are defined as behaviors, activities, and interventions that use nature and natural products to achieve good health in mind, body, and spirit.[1] This will be the definition of green therapies we use in this book.

Before discussing green therapies, we need to make one important point. The use of green therapies does not mean other standard medical treatments should be avoided. Green therapies work in conjunction with other treatments to promote good health. Therefore, green therapies are often referred to as

[1] Karen Lee Fontaine RN, MSN, *Complementary and Alternative Therapies for Nursing Practice* (Upper Saddle River, NJ: Pearson Higher Ed), 2014.

"complementary" therapies. They often provide additional benefits and work hand in hand with other standard health treatments. However, a major benefit of green therapies, unlike many medical treatments, is that they generally lack negative side effects. Instead, they offer a more natural, common sense approach to wellness. Green therapies therefore can allow people to avoid or reduce the use of other "less natural" medical treatments while still encouraging good health.[2]

So, why do we need green therapies at all? After all, isn't modern science and medicine one of mankind's greatest accomplishments? Over the last fifty years, advances in medicine have made progress in several areas of disease. People's life spans have increased on average by eleven years. The percentage of people suffering from heart disease, cancer, and stroke have all declined.[3] But despite improvements in these diseases, prevalence of other conditions has increased. Obesity, alcoholism, autism, depression, anxiety disorders, and diabetes

[2] Ibid.
[3] OECD, "Health at a Glance 2011," *OECD Publishing, 2012*, retrieved from http://dx.doi.org/10.1787/health_glance-2011-en.

now affect more people than previously. And the costs to care for these people have risen at the same time. In the U.S, the amount of money spent on healthcare over the last few decades has quadrupled![4] Are we truly healthier as a result of the advances of modern medicine? In some ways yes, and in some ways no. This is where green therapies can be of help.

When considering the health problems that have become more prevalent in recent times, many share a common factor. They involve lifestyle choices. Lifestyle choices include the foods we eat, the activities we do, and the habits we adopt. Shifts in how people live their lives over the last fifty years have been a reason why some of these health problems have become more common. Green therapies place a strong emphasis on lifestyle and our daily behaviors. Because modern medicine focuses more on medicines and surgeries, lifestyle and behavior changes are sometimes neglected. Green therapies can help improve health by placing more attention on these important health areas. In

[4] Ibid.

practice, green therapies complement regular medical care in promoting good health.

A Snapshot of Our Times

So, what changes have occurred over the last fifty years that have caused some illnesses to be more common? For one, people have become more isolated from the natural world. People in general spend more time indoors and less time in nature. Did you know most people living in developed countries spend more than 90 percent of their time indoors? In fact, most of these people spend less than 5 percent of their waking hours outdoors.[5] Even kids on average spend less than half the time outdoors that they did a few decades ago.[6] As cities have increased in size and number, and as computers and electronics have become more popular, people have progressively spent more time inside.

People moving to cities and the increasing use of technologies have affected both children and adults. Without access or desire to be outside, people's time spent in nature has

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[5] U.S. Environmental Protection Agency, "The Inside Story: A Guide to Indoor Air Quality," November 24, 2009, retrieved from http://www.epa.gov/iaq/pubs/insidest.html.

[6] Harris, Marlys, "Kids Stay Indoors: What Happened to, 'Go outside and play'?" *MinnPost*, 2013, retrieved from http://www.minnpost.com/cityscape/2013/08/kids-stay-indoors-what-happened-go-outside-and-play.

declined. Inner cities often have fewer green spaces, higher crime rates, and greater traffic, as well as higher rates of air pollution. All these factors reduce the time people want to spend outdoors.[7] One might think living in suburban neighborhoods might encourage more outdoor activities. But larger home and yard sizes have made no difference in time spent outdoors. Children and adults alike often choose to watch television, play video games, or interact with a computer indoors rather than explore their natural surroundings.[8]

Stress also plays a role in people's recent lifestyle changes. With the development of the Internet, email, smart phones, and other technologies, people ironically have less time to accomplish their daily tasks as obligations have grown. People feel pressure to be more efficient and to attain greater achievements. As a result, people's levels of stress have climbed progressively. In recent surveys, 42 percent of people described elevated stress levels above what they considered to be healthy. In addition, two-thirds of people say they manage their stress

[7] Ibid.
[8] Ibid.

poorly.[9] The effects of high levels of stress get compounded, as stressed-out people tend to eat poor diets, exercise less, and sleep poorly. While 38 percent of Americans admit to eating poor-quality foods due to stress, two-thirds skip meals altogether. Likewise, insomnia and limited exercise have also been linked to higher levels of stress in about 40 percent of people.[10]

Even the way we interact with one other has changed dramatically over the last few decades. Talking face-to-face with someone is becoming less and less common. While the invention of the telephone limited our ability to directly see a person's response, the invention of email, texting, and social media has further reduced face-to-face interactions.[11] Even today when people are in the same room, they are often distracted because they are texting, answering emails, and surfing the Internet. We

[9] American Psychology Association, "Stress in America Survey 2013 Highlights," *APA.org*, 2014, retrieved from http://www.apa.org/news/press/releases/stress/2013/highlights.aspx.
[10] Ibid.
[11] Robert Kraut, Michael Patterson, Vicki Lundmark, Sara Kiesler, Tridas Mukophadhyay, and William Scherlis, "Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-Being?" *American Psychologist* 53, no. 9 (1998): 1017.

are reduced, at best, to using emoticons and punctuations to express how we feel. Actual in-person social interactions are becoming fewer for each progressive generation.[12] Each of these changes has resulted in greater isolation and less interaction with both nature and with others.

The History of Green Therapies

Our need for a relationship with nature has become disrupted. This has left us feeling unbalanced and open to a variety of physical, mental, and emotional problems. Research suggests awareness of who we are, how we feel, and what we desire depends greatly on our relationship with nature and our surroundings. Many experts believe disconnection from the natural world to be the cause of many of society's problems. Because we have an innate need to connect to nature, failure to do so leads to various physical, mental, and emotional health problems.[13]

[12] Ibid.
[13] Terry Hartig, Agnes E. van den Berg, Caroline M. Hagerhall, Marek Tomalak, Nicole Bauer, Ralf Hansmann, Ann Ojala et al., "Health Benefits of Nature Experience: Psychological, Social

The importance nature has played in human well-being dates back to the time of Hippocrates. In ancient times and even our recent past, nature and environment were associated with diet, work, and recreational activities. Each of these were important to well-being. During the Enlightenment period, reason and science were recognized as being important as a means to understand nature and its relationship to our health. And during the Romantic period, the love of nature was felt to be important for human development and health.[14] The concept of nature's importance in people's well-being is therefore not new. Perhaps we have just recently lost our way and need to find our way back.

The term "green therapy" itself is relatively new. In the past, such therapies might have been called naturalistic or holistic therapies. With environmentalist movements, these same natural philosophies have been labeled "green." Green therapies are therefore consistent with ancient beliefs that saw nature and

and Cultural Processes," in *Forests, Trees and Human Health* (Springer Netherlands, 2011), 127–168.
[14] Ibid.

people's well-being as inseparable.[15] Since the beginning of time, our interaction with nature has determined how we evolve and grow. Likewise, a person enjoys the greatest physical, emotional, and mental well-being through interacting with nature. We were never meant to live in isolation, and having a connection with nature offers the best way to enjoy good overall health.[16]

Green therapies consist of many different behaviors and activities that allow us to better connect with nature. These therapies may involve an activity in the wilderness, or they may involve an interaction with animals, music, or nature in a variety of ways. Green therapies may also be activities that excite our senses. Through sound, smells, and touch, our bodies often react in a positive way. Even foods we eat and the exercise we choose can allow a deeper connection to nature and thus improve our health. The common thread among these therapies is their focus on reconnecting us with nature in some way. For these reasons, green therapies seek to promote health in a safe and natural way

[15] Ibid.
[16] Ibid.

that not only helps prevent illness but allows us to enjoy our health more fully.

Nature and Basic Human Needs

Most people are aware of the beneficial effects of walking on a beach, paddling in a stream, or hiking in the mountains. It is no accident we are drawn to these areas of natural beauty when time allows. In addition to better air quality, nutrition, and even materials for shelter, nature also helps us recover from stress, focus our attention, and enjoy spiritual experiences. For centuries, many native cultures have used nature's healing practices as part of their remedies. These same practices are now being researched and used in combination with modern medicine to help people become as healthy as possible.[17]

Modern therapies have primarily been reactive to the symptoms of disease. For example, when someone becomes sick with an illness or a disease, medicine subsequently seeks a cause for the condition. Once a cause is found, our medical system

[17] Fontaine, 2005.

attempts to treat that cause. Of course, in some cases cures are lacking, and trying to prevent the illness in the first place is not necessarily the main goal. Because of this reactive approach to illness, medicine has often been behind the curve. Only recently has prevention care been identified as a priority, and the complementary use of green therapies has supported this change.

Prior approaches to health and healing placed a great deal of emphasis on science and medicines. If science did not have the answers, limited solutions were available. Natural therapies, and green therapies specifically, view health and healing a bit differently, however. While scientific knowledge is certainly important, green therapies focus on the body's ability to heal itself. When the body is provided with what it needs, illness and disease are less common. By giving our minds and bodies natural compounds and experiences, health becomes more likely. We were designed to be self-healing in many ways, but we must have the right ingredients for this to happen.[18] While some explanations as to how green therapies benefit our health remain

[18] Ibid.

unknown, they do help meet our body's needs in pursuing well-being.[19]

Recently, people have begun to recognize green therapies as being important to health. Proper diet and exercise are examples of basic green therapies that have gained increased attention. Both doctors and scientists have shifted greater focus to these areas over time. In addition, the importance of sleep and stress control has been noted in relation to our well-being. Our immune system, our mental health, and even how long we live are beneficially affected by good sleep and low stress states. Each of these areas highlight our need to connect with the natural world as much as possible. Green therapies and a connection with nature help us develop, grow, and live as healthily as possible. By meeting our basic human needs, green therapies allow us to enjoy the best life has to offer.

Research continues to support the effectiveness of green therapies. Therefore, many doctors and scientists increasingly are accepting the inclusion of green therapies in health treatments.

[19] Ibid.

Common sense suggests that reconnecting with nature will give us the chance to become healthier. These therapies let us achieve a better balance in life, and this balance has always been shown to promote better health.[20] In the chapters to follow, we'll provide details on specific green therapies. Through research findings and personal stories, green therapy benefits on health will become increasingly clear.

[20] Ibid.

CHAPTER 2

AN OVERVIEW OF TRADITIONAL GREEN THERAPIES

Green therapies, as previously described, have been used for a long time to promote health. And recently our society has a newfound appreciation of their importance to our well-being. In this chapter, we will explore some of the most common forms of green therapies, including details about how to use various green therapies as well as specific techniques. Because some green therapies have been studied more thoroughly and thus have a greater body of data, we will offer differing amounts of information about each therapy. Some green therapies, such as nutrition and exercise, will naturally be explained in greater detail. However, each green therapy has been researched to at least some extent, while others have a greater amount of anecdotal data as opposed to true double-blind studies. Either way, we share this information to increase understanding of each one.

NUTRITIONAL THERAPY (I.E., DIET)

Providing the body (and mind) with proper nutrition is perhaps the most well-studied and commonly practiced green therapy. An abundance of information is available about healthy (and unhealthy) diets. With that being said, entire books and volumes of books have been written on diet and health, and this level of description is beyond the scope of this book. The purpose of this overview is to simply provide basic knowledge about diet as a green therapy as it relates to health. Specific recommendations about diets and nutrition will be provided later in the book. But in this section, we will discuss the basic facts about nutrition to provide a simple introduction to nutritional therapies.

Water

One of the most important components of nutritional therapy is water. Water is considered a natural therapy since all forms of life require its presence. Did you realize the average adult body contains about 60 percent water? This percentage is even higher for children and infants. Because water makes up the majority of

our body weight, adequate water intake is understandably important.[21] Water serves many health functions. Water aids in digestion and in the elimination of wastes and toxins from the body. As a universal solvent, water helps natural molecules and chemicals within the body dissolve so our cells can function normally. In addition, water provides a medium for our circulation so blood can flow properly to tissues and organs to deliver glucose and oxygen and to remove wastes. A lack of sufficient water can therefore affect several body systems, causing poor health in the process. Water thus reflects an essential ingredient of healthy nutritional therapy.

The amount of water one should drink daily varies from person to person. Body size, age, and level of activity affect the exact amount necessary for health. A good rule of thumb is to make sure you drink at least one liter of water per day, although drinking between two and three liters of water daily is ideal.[22] Unfortunately, many people fail to drink this recommended

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[21] U.S. Geological Survey, "The Water in You," *USGS.gov*, 2014, retrieved from http://water.usgs.gov/edu/propertyyou.html.
[22] Ibid.

amount of water and drink other beverages instead. Sugar-sweetened sodas, drinks with artificial sweeteners, and those with artificial flavorings do have some water content. However, they also contain other substances that work against the health content of the liquid.[23] Likewise, some sources of water may contain contaminants that can also be unhealthy. Therefore, distilled or purified water is preferred.

Proteins, Carbs, and Fats

The human body thrives when the diet provides the right amount of nutritional substances. Micronutrients refer to minerals and vitamins that the body and mind need. These substances are important since the body is unable to manufacture them on its own. However, macronutrients are also important. Macronutrients consist of proteins, carbohydrates, and fats contained in foods in various combinations. These substances are essential to provide the body with energy resources and building

[23] Qing Yang, "Gain Weight by 'Going Diet?' Artificial Sweeteners and the Neurobiology of Sugar Cravings," Neuroscience 2010, *The Yale Journal of Biology and Medicine* 83, no. 2 (2010): 101–108.

blocks for metabolism. Macronutrients come in different types, with some being healthier than others. Because of these differences, understanding which proteins, carbohydrates, and fats are best for one's health is an important part of nutritional therapy.

Proteins typically come from lean meats or from other foods like tofu. Carbohydrates come from a variety of foods, including pastas, breads, cereals, fruits, and more. Fats are also found in a variety of foods, with nuts, oils, and animal fats being most common. Each of these categories are important for proper nutrition since each is involved in different cellular and tissue functions. But some of these macronutrients may have unhealthy effects in addition to healthy ones. Having the proper balance of these macronutrient types is important for optimal health, and the quality and quantity of these food components can often determine how healthy one's diet is.

The ideal percentage of proteins, carbohydrates, and fats in a healthy diet should be roughly 20 percent protein, 30 percent fats, and 50 carbohydrates based on the total number of calories

eaten per day. Fats provide more than twice the number of calories per gram (9 calories/gram) as opposed to proteins and carbohydrates (4 calories per gram).[24] As a result, the amount of fats included in the diet should be much less than the amount of carbohydrates and proteins. Unhealthy diets often have too many fats in proportion to proteins and carbohydrates. Eating the proper percentages of each macronutrient in one's diet represents an important step toward healthy nutritional therapy.

Carbohydrates are classified as simple or complex. Simple carbohydrates are those with simple structures that are quickly metabolized. Simple carbohydrates thus result in rapid rises (and subsequent falls) in blood sugar levels. These yo-yo changes in blood sugar levels from simple carbohydrates are known to trigger sugar cravings. This can be particularly unhealthy in people sensitive to sugar, leading to weight gain and even diabetes.[25] In contrast, complex carbohydrates, as the name indicates, are more complex in structure and require longer

[24] Linda DeBruyne, Kathryn Pinna, and Eleanor Whitney, *Nutrition and Diet Therapy* (Belmont, CA: Cengage Learning, 2011).
[25] Ibid.

periods of time to metabolize. When one ingests complex carbohydrates, blood sugar levels remain more steady and consistent.[26] Good nutritional therapy thus promotes more complex carbohydrates than simple carbohydrates in the diet.

Some complex carbohydrates are also known to be high in fiber. Fiber in the diet has many positive health effects. In addition to helping with overall digestion and bowel function, high-fiber foods lower cholesterol and reduce the risk of both heart disease and colon cancer. Also, because some fibers are poorly digested, fiber can provide a greater sense of fullness, which can curb appetite.[27] Fiber therefore helps sustain one's ideal weight. Including complex and high-fiber carbohydrates in the diet offers better chances for better health as a general rule.

Like carbohydrates, fats can also be categorized as either healthy or unhealthy. Unsaturated fats, which include both monounsaturated and polyunsaturated fats, are generally considered the healthier types of fats. These fats lower cholesterol levels and reduce the risk for heart disease and stroke.

[26] Ibid.
[27] Ibid.

This group also includes omega-3 fatty acids, which reduce the risk for heart disease and reduce inflammation.[28] Unsaturated fats are commonly found in vegetable oils and nuts and should replace saturated fats as much as possible in the diet.

Saturated fats, in contrast, are linked to atherosclerosis and to heart disease. These types of fats are commonly present in animal fats. Therefore, fatty meats (hamburger, lamb, most cold cuts) as opposed to lean meats (fish, chicken, pork) have a higher amount of saturated fats. Trans fats (a type of saturated fat) are the worst for one's health. In particular, these unhealthy fats are linked to heart disease, stroke, and other circulation problems. Trans fats are most commonly found in deep fryer oils, pastry icings, and some margarines and should be avoided completely if possible.[29] Despite the unhealthy effects of saturated and trans fats, fats are an important part of healthy nutritional therapy. Choosing unsaturated fats and eating the proper amount of fat in the diet is an important part of pursuing a healthy diet.

[28] Ibid.
[29] Ibid.

Minerals and Vitamins

Vitamins and minerals are often called micronutrients because they are much smaller in nature than proteins, carbohydrates, and fats. Regardless, they are still essential for proper nutrition. Vitamins and minerals are necessary for cells in tissues and organs to function correctly. In fact, major systems of the body, including the immune system, the nervous system, and the digestive system, fail to function properly when adequate intake of vitamins and/or minerals is lacking.

Like macronutrients, vitamins and minerals are essential to the human body. However, vitamins and minerals differ in two major ways from proteins, carbohydrates and fats. First, vitamins and minerals do not provide the body with energy in any form or fashion. In other words, micronutrients do not provide calories. Second, in some circumstances, the body can generate proteins, fats, and carbohydrates from other molecules to meet basic needs. This is not true for vitamins and minerals.[30] These

[30] Ibid.

micronutrients must be included in the diet to be available for the body to use.

Natural sources of vitamins and minerals come from several foods. The most common sources of these micronutrients is fruits and vegetables. Unfortunately, fruits and vegetables are deficient in many people's diets, and therefore, vitamin and mineral supplements are often encouraged for this lack of dietary vitamins and minerals. However, supplements are not as ideal when compared to natural sources of vitamins and minerals. For one, yet-to-be-discovered micronutrients may exist in natural food sources. While science has identified many small nutritional compounds used by the body, new discoveries are made all the time. This fact makes it impossible to give the body every possible nutrient it needs through supplementation. Natural foods, in addition to offering unknown micronutrients, often provide the amounts of vitamins and minerals in ideal proportions to facilitate health. For these reasons, natural sources of vitamins and minerals are preferred over supplements when proper nutritional therapy is available.

Overall, thirteen major vitamins are recognized as essential to human health. Of these, four are fat-soluble, meaning they can be stored in the body's fatty tissues for later use. However, the other nine vitamins are water-soluble and cannot be readily stored. This means a continuous supply of these vitamins from the diet is necessary.[31] In addition to vitamins, at least ten minerals are recognized as being essential to good health. In all likelihood, other yet-to-be-discovered vitamins, minerals, and micronutrients are also required for optimal health. Therefore, ideal nutritional therapy encourages adequate amounts and varieties of fruits and vegetables in the diet to ensure an adequate supply of these substances.

Organic vs. Processed vs. GMO

Green nutritional therapies not only involve macro- and micronutrients and their proportions in the diet. They also comprise the way foods are grown, processed, and prepared. As science has evolved, many foods are grown and processed in

[31] Ibid.

ways that are less than natural. As a result, choosing unnaturally prepared foods may hinder health regardless of the vitamins, minerals, and other ingredients in the raw food. Knowing the differences between organic foods, non-GMO foods, GMO foods, and processed foods is helpful. Some of these labels are associated with healthier diets while others may introduce harmful substances into the diet. Green nutritional therapies thus consider these aspects of nutrition as well.

Processed foods are foods that have been changed (often through the use of chemicals and preservatives) to allow a longer shelf life, enhanced taste, and/or improved appearance. Most of these chemicals and preservatives are not natural but instead manufactured, and are a potential for harm when it comes to health. Often, manufacturers claim that these chemicals are safe since they are routinely tested before use. But rarely have these substances been tested in combination with other preservatives or for an extended period of exposure. Because of these limitations, a lack of safety information continues to exist regarding processed foods.[32] As a rule, processed foods typically have less

nutritious value than unprocessed foods, and they may be less safe in many cases.

GMO stands for "genetically modified organism." GMO foods are therefore foods that have been grown from genetically modified seeds or plants to allow greater productivity or food enhancements. Even if these foods are not "processed" further after harvesting, the genetic changes to the plants prior to planting may also cause unhealthy effects. The long-term effects of GMO foods on health remain poorly known, and many groups want GMO foods to have package labeling identifying the product as GMO.[33] By definition, GMO foods are not natural or green but instead artificially manipulated to enhance production. Therefore, these foods are not considered a part of green nutrition therapies.

Many people assume non-GMO foods and organic foods are the same. However, this often is not the case. Both these food

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[32] Ibid.
[33] Dan Charles, "Why the 'Non-GMO' Label Is Organic's Frenemy," National Public Radio Website, 2014, retrieved from http://www.npr.org/blogs/thesalt/2014/02/28/283460420/why-the-non-gmo-label-is-organic-s-frenemy.

types lack genetic modification or processing; however, they have different growing standards. Organic foods, for example, are not exposed to chemical pesticides or fertilizers, while non-GMO foods may be. In contrast, farmers cultivating organic foods use crop rotation, crop cover, and natural animal fertilizers to enhance production.[34] In regard to green therapies, organic foods are the most desirable because these represent truly natural crops and foods. These food sources offer nutrients while avoiding unnatural chemicals and substances that may harm our physical, mental, or developmental health.

A Balanced Diet

The human body needs a variety of nutrients to function properly. No single food delivers everything, and our diets should be diverse while eating specific foods in moderation. Different foods provide the building blocks necessary for good health from a holistic perspective. Unbalanced diets, which lack certain nutrients or contain unnatural chemicals and

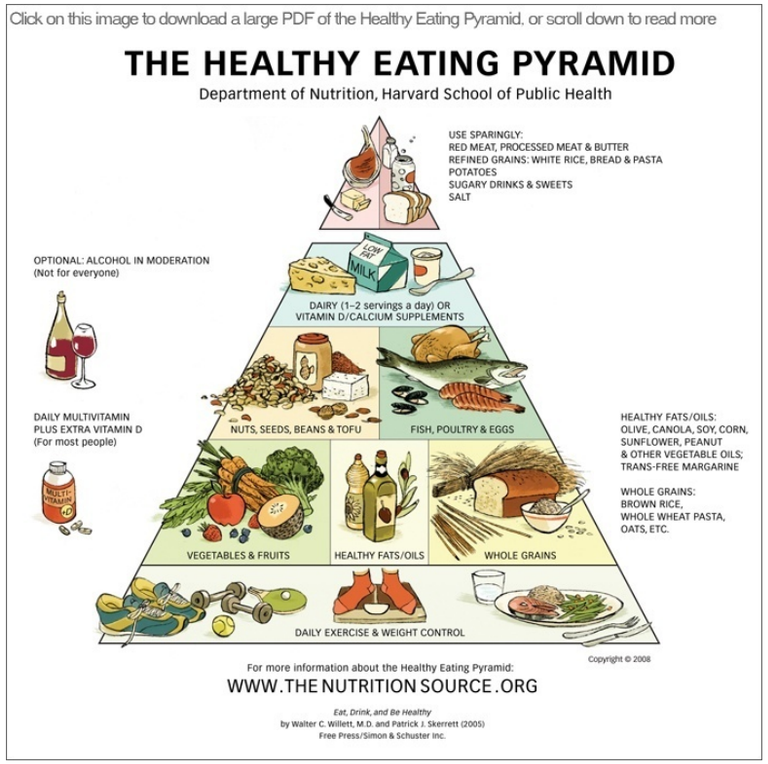
[34] Ibid.

preservatives, may result in unwanted side effects. As a result, poor health effects can undermine the ability of our bodies to function properly.

Poorly balanced diets have been associated with many health conditions. Reduced muscular strength, increased stress, delayed concentration, low energy levels, mood swings, and weight gain are only a few of the adverse conditions that have been described in this regard. In addition, poor nutrition also increases the risk of developing many chronic diseases. Obesity, high blood pressure, heart disease, high cholesterol, diabetes, cancer, and stroke are illnesses commonly linked in part to poor diets. To reduce these risks, a balanced diet that includes the nutrients previously described should be the goal.[35] This approach is a central message of green nutritional therapies. The following figures demonstrate the components of a balanced diet for various age groups:

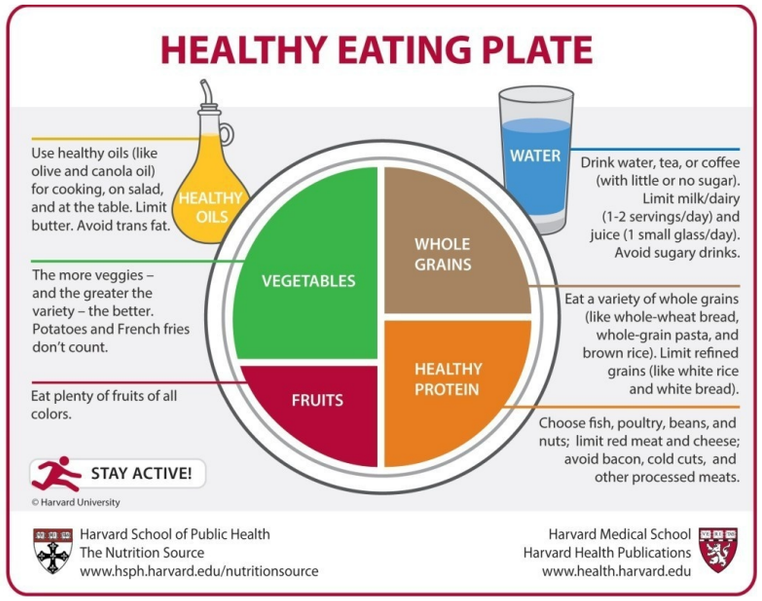
[35] Harvard School of Public Health, "Food Pyramids and Plates: What Should You Really Eat?" *Harvard School of Public Health Website, 2014*, retrieved from http://www.hsph.harvard.edu/nutritionsource/pyramid-full-story/.

Figure 1: Healthy Eating Pyramid[36]



[36] Ibid.

Figure **2**: Healthy Eating Plate[37]



Good health is a more likely result when the body and mind receive the nutrients needed to function well. A healthy, balanced, and natural diet is essential toward achieving this goal. Proper nutrition remains the foundation to health promotion and disease prevention. The human body has the ability to achieve good health given the right tools and conditions, and green nutritional therapies strive to do just this.

[37] Ibid.

Exercise Therapy

The human body was designed to be active. As a result, the phrase "use it or lose it" certainly applies when it comes to exercise and physical activity. Nothing could be more natural than the body's need to move, interact, and engage with its environment. Unfortunately, sedentary activities have become increasingly common. Desk jobs, television, computers, and video games have all encouraged reduced levels of physical activity. The amount of time we spend sitting each day has increased greatly over the last half century, and too much sitting has recently been linked to poor health conditions. At the same time, most adults exercise only fifteen minutes per day.[38] Such lifestyles are far from optimal.

Exercise as a green therapy encourages physical activities on a regular basis. In doing so, we can enjoy the health benefits exercise provides. Not only does exercise enhance physical abilities and health, but it also improves mental and emotional

[38] National Heart Foundation of Australia, "Sit Less, Move More," National Heart Foundation Website, 2011, retrieved from http://www.heartfoundation.org.au/SiteCollectionDocuments/HW-PA-SittingLess-Adults.pdf.

health as well. Physical benefits range from better heart health to improved mobility and strength. Likewise, exercise reduces stress, improves mood, and provides self-confidence as far as mental and emotional well-being is concerned.[39] Combining exercise with other green therapies naturally helps us achieve optimal health and wellness.

From a physical perspective, exercise is beneficial in many ways. Exercise is known to suppress appetite and assist with weight control. Exercise also improves metabolism and glucose control, lowering the risk for diabetes.[40] Aerobic exercise, which stimulates the heart and circulatory system, helps lower blood pressure, cholesterol, and heart disease risks. And the musculoskeletal system benefits from exercise with improved overall strength, movement, and balance as well as reduced risk for arthritis, osteoporosis, and falls.[41] Exercise therapy thus helps keep the physical systems of the body in proper working order.

[39] American College of Sports Medicine, *ACSM's Guidelines for Exercise Testing and Prescription* (Philadelphia, PA: Lippincott Williams & Wilkins, 2013).
[40] Robert Ross, "Does Exercise Without Weight Loss Improve Insulin Sensitivity?" *Diabetes Care* 26, no. 3 (2003): 944–945.
[41] American College of Sports Medicine, 2013.

Exercise therapy is also important for mental and emotional health. Physical activity has long been recognized to reduce psychological and emotional stress. Exercise allows the release of natural chemicals from the brain and body, which help alleviate mental stress.[42] In addition, increased oxygen and circulation improve the brain's abilities to concentrate while also enhancing memory and attention. And exercise fosters a sense of well-being, which improves confidence and self-esteem.[43] For these reasons, exercise therapy is used in several ways to achieve better mental health.

Other advantages to exercise therapy involve longer life spans and better social health. Physical fitness reduces inflammation in the body and boosts the immune system. These effects reduce the risk of infection, cancer, and other inflammatory conditions and have even been shown to slow down aging.[44] Many exercise activities provide the chance to

[42] William P. Morgan and Stephen E. Goldston, eds. *Exercise and Mental Health* (New York, NY: Taylor & Francis, 2013).
[43] Ibid.
[44] Neil P. Walsh, Michael Gleeson, Roy J. Shephard, Maree Gleeson, Jeffrey A. Woods, Nicolette Bishop, Monika Fleshner, et al., "Position Statement Part One: Immune Function and

interact with nature and with other people. These interactions are important for human health in terms of social well-being. Thus, the use of green therapies often seeks to combine fitness with exposure to nature to help realize these benefits.

Like proper nutrition, adequate amounts of exercise and physical activity are necessary to achieve better health. Exercise therapy also offers specific advantages in managing other illnesses, as we will discuss later in subsequent chapters. The body and mind enjoy many positive effects from exercise, and this green therapy should be a part of everyone's daily life in pursuing good health.

Exercise," *Exercise Immunology Review* 17 (2011): 6–63.

Sleep-Related Therapy

Like proper nutrition and exercise, adequate sleep and rest on a regular basis is necessary for good health. Despite this being common knowledge, sleep deprivation is incredibly common. The most common reason people fail to get enough sleep is simply by choice. People choose to skip a few hours of sleep because they believe they have more important things to do. A little extra time at work, another half hour out with friends, or a little extra time watching the nightly news seems more enjoyable than getting the sleep we need. Particularly in the fast-paced, achievement-oriented society in which we live, productivity is in high demand. Sleep, on the other hand, is not.

Everyone requires a certain amount of sleep to function well. This amount varies, however, from person to person. Most people need between seven and a half and eight hours of sleep per night to feel fully rested. But this may not be the case for everyone. A small minority of people require only four to five hours of sleep per night, and others may need as much as ten hours. Interestingly, the amount of sleep per night a person needs

does not change over time. So once a person reaches adulthood, they should have a pretty good idea how many hours of sleep per night they need to feel well.[45]

Despite this sleep need, people do have an ability to tolerate sleep deprivation to a degree. For example, a medical intern or a young corporate executive may burn the midnight oil in an effort to pursue their career. Over time, they become adept at functioning on fewer hours of sleep than their body optimally requires. But tolerance is not the same thing as performance and health. When sleep deprivation occurs, peak performance declines, both physically and mentally, and the risk for a variety of health disorders increases.[46] In order to enjoy good health, one needs to get the amount of sleep their body requires on a regular basis.

The amount of sleep we get is certainly relevant to our well-being. But the quality of our sleep is also important. Sleep is categorized as being non-REM (NREM) sleep or REM sleep

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[45] Michael S. Aldrich, *Sleep Medicine* (Oxford: Oxford University Press, 1999).
[46] Ibid.

based on specific observations and characteristics of brain and body patterns. REM (rapid eye movement) sleep is an active phase of sleep where brain activity is increased and vivid dreaming is commonly experienced. This phase of sleep is important for optimal attention, concentration, memory formation, and learning.[47] Because REM sleep occurs more in the second half of the night, sleep-deprived people typically get less REM sleep than NREM sleep. As a result, their ability to perform their best mentally may be impaired.[48]

NREM sleep, on the other hand, is less active in nature. From Stage I to Stage IV, NREM sleep is associated with a progressive slowing of brain waves, heart rate, and the body's metabolism. Based on these observations, NREM sleep is believed to be important in restoring the brain's and body's ability to function the next day.[49] Because NREM occurs mostly in the first half of the night, it is suspected of being vitally

[47] Ibid.
[48] Ibid.
[49] Ibid.

important to health. Specifically, the deepest phases of NREM sleep occur almost exclusively in the first four hours of sleep.[50]

Both quantity and quality of sleep are important for overall wellness. When either of these is insufficient over a period of time, disturbances in health can occur. Physical, mental, and emotional effects can result. At the same time, proper sleep duration is important in preventing or improving many health conditions. For example, depression often gets better when good sleep is restored. Likewise, wound healing is more successful with proper sleep. Therefore, the inclusion of sleep therapies in the arsenal of green therapies makes logical sense. Sleep is a natural function of the brain and body that promotes well-being, and its presence is just as valuable as nutrition and exercise on our ultimate health.

Sleep deprivation affects about a third of all people, and secondary effects on physical, mental, and emotional health are quite common as a result. Inadequate sleep has been associated with higher risks for obesity, high blood pressure, heart disease,

[50] Ibid.

and stroke. In addition, poor sleep places people at risk for various infections.[51] Last, sleep deprivation causes reduced abilities in learning in both children and adults, and it commonly causes mood swings and depression. In fact, a significant number of children with sleep deprivation may be falsely diagnosed with attention deficit hyperactivity disorder (ADHD).[52] Paying attention to the amount and quality of one's sleep thus plays an important role in the pursuit of good health.

Most doctors and healthcare providers pay attention to proper nutrition, exercise, and sleep. Strong evidence supports these natural approaches to good health. But the extent to which these green therapies are used can vary. Some doctors and providers emphasize these therapies, while others tend to focus more on medications and surgery. The human body, mind, and spirit have remarkable abilities for self-healing and sustaining health as long as the necessary tools are available. Ensuring the right nutrition, exercise, and sleep helps us stay healthy and avoid illness. In addition, combining these natural approaches to

[51] Ibid.
[52] Ibid.

health with other green therapies can help us attain even greater degrees of well-being.

Chapter 3

An Overview of Contemporary Green Therapies

The green therapies involving nutrition, exercise, and sleep are well known by most healthcare professionals. Proper diet, physical activity, and rest are essential for the mind and body to function well and remain healthy. Even though these therapies are not stressed to the same degree by all doctors and providers, they are widely accepted as being important to our well-being. In addition to these green therapies, other natural therapies are also important in promoting health. Some are used routinely to help us maintain healthy bodies and minds. Others are used more specifically to help certain health conditions. Regardless, both uses encourage our reconnection with nature and the natural world. In doing so, we give our bodies what they need to heal themselves and to optimize overall health. In the following sections, several more modern green therapies will be described in addition to their benefits and uses.

Animal Assisted Therapy

Animal-assisted therapy (AAT) involves the use of animals to help promote our well-being. The premise of this therapy is based on the natural bond between animals and people. Animals that have been used for AAT have included cats, birds, rabbits, horses, and even dolphins. The most common animals employed in AAT, however, have been dogs. Animals provide unconditional love and affection to people, which is therapeutic in a variety of ways. These interactions benefit children and adults alike, helping them emotionally, mentally, and even physically. And increasingly, research studies are verifying these health benefits that animals provide.[53]

From a physical perspective, AAT has been used to help people with limited mobility. This does not refer to service-related animals that help those with limited eyesight. Instead, AAT in this instance refers to animals that help people with conditions like arthritis, stroke-related weakness, and other

[53] Aubrey H. Fine, ed., *Handbook on Animal-Assisted Therapy: Theoretical Foundations and Guidelines for Practice* (Burlington, MA: Academic Press, 2010).

conditions that limit individuals' ability to move.[54] For example, walking a dog every day can improve one's mobility through exercise while also giving the person a sense of purpose. AAT has also been shown to reduce symptoms and lengthen the life spans of people suffering from heart disease. AAT in these situations is believed to reduce anxiety and stress, which in turn reduces heart disease risks.[55] These benefits occur with AAT without the use of medications or other "unnatural" treatments.

Specific examples of AAT have made the news in some notable cases. For example, the use of horses to treat poor movement abilities and depression have been well publicized. Ann Romney, wife of Governor Mitt Romney, used equine-assisted therapy (horse-related AAT) to overcome her depression associated with multiple sclerosis.[56] Rising Hope Farms, a nonprofit organization, uses horses to help veterans suffering from various injuries and conditions.[57] Individuals with physical,

[54] Ibid.
[55] Ibid.
[56] Sheena McKenzie, "Roll Over Freud – The Rise of Animal Therapy," CNN.com, 2012, retrieved from http://edition.cnn.com/2012/11/30/sport/equine-horse-therapy-mental-health/.

mental, and emotional wounds participate in these programs to enhance healing and recovery. And providing these animal-assisted therapies outdoors further promotes healing by allowing these individuals to interact with nature.

AAT has also been used in people suffering from memory problems and dementia. Interacting with animals improves both short-term and long-term memory, as individuals must remember to feed and care for the animals on a regular basis. These interactions also require people to recall the name of the animal, which further exercises their memory.[58] A further benefit of animal therapy is that animals have a calming effect on people. Finally, AAT has been helpful in reducing agitation and anxiety in people with dementia. Interacting with animals promotes verbal and facial expressions. This may be important in helping dementia patients with limited social skills and with language abilities.[59] Each of these benefits of AAT can be useful in specific settings where emotional or mental difficulties exist.

[57] Rising Hope Farms, "Horses for Heroes," n.d., retrieved from http://risinghopefarms.com/?page_id=31.
[58] Fine, 2010.
[59] Ibid.

In most instances, AAT is provided under the direction of a trained therapist. But over time, people may learn to continue these interactions with animals on their own. Everyone, not only people with specific illnesses, can benefit from interacting with animals. Reductions in stress, opportunities for companionship, and increased sense of responsibility all contribute to better health. AAT offers these as well as other benefits to most everyone.

WILDERNESS THERAPY

Wilderness therapy is, quite simply, spending time in and around nature. The experience and connection to nature as a vital aspect of good health is certainly not new. In fact, two of America's most famous writers stressed the importance of interacting with nature in order to be the best a person could be both intellectually and morally. Ralph Waldo Emerson and Henry David Thoreau each described how nature allowed a person to become better connected to every living spirit. They believed one could get to know oneself through immersion in nature. By spending time in

the wilderness, one learns to depend on one's self and also to respect all living things. This promotes integrity and self-confidence.[60] Since the time of these authors' writings, many programs using wilderness therapy have been developed based on the authors' beliefs about human interaction with nature.

Wilderness therapy functions in three major areas of health and wellness. These include programs that focus on personal growth, those trying to change unwanted personal behaviors, and programs involving drug and alcohol use. In each case, the wilderness provides an escape from everyday routines and an experience to appreciate all nature has to offer.[61] Wilderness therapy helps people break out of negative patterns and see new opportunities and personal strengths. The connections made with nature allow individuals to envision a larger purpose and perspective in life. Ultimately, this

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[60] Ann Woodlief, "Emerson and Thoreau as American Prophets of Eco-wisdom," in *American Romanticism. The Greenhaven Press Companion to Literary Movements and Genres* (1999): pp. 92–6.

[61] Chad P. Dawson and Keith C. Russell, "Wilderness Experience Programs: A State-of-the-Knowledge Summary," (2012): 127–133.

strengthens a person's self-esteem and provides hope so individuals can make positive changes in their lives.

Specific wilderness therapy programs can help with several different health problems. For example, some wilderness therapy programs strive to help people with anger issues, vandalism, and other destructive behaviors. Other wilderness programs can help individuals with anxiety and stress since experiences in nature can improve both of these conditions.[62] Likewise, wilderness therapy can encourage a stronger balance of emotions, which helps people with a variety of mood disorders.[63] Wilderness therapy can also be used with recreational activities to allow both the combined benefits of nature and exercise to improve one's health. And spiritual health programs often use wilderness therapy to promote wholeness and well-being.[64]

Wilderness therapy is often provided by different types of health professionals trained in areas of personal growth, mental

[62] Ibid.
[63] Ibid.
[64] Ibid.

health, and/or substance abuse. However, wilderness therapy can be used in a more casual way by anyone. Each of us needs to connect with nature to grow and develop, and nature fosters this growth in a positive and complete way.[65] For example, exposure to sunlight enables the human body to produce vitamin D needed for strong muscles and bones. At the same time, sunlight can lift our spirits and improve our mood. On the other hand, a lack of sun over a long period of time can cause many people's moods to be somewhat depressed. This is simply one example of how experiences in nature play an important role in helping us maintain good health. With more time being spent indoors, wilderness therapy offers a back-to-basics approach to health, reminding us the importance nature has in regard to our well-being.

HORTICULTURAL THERAPY

Horticultural therapy is the use of plants and gardening for human healing and rehabilitation. Interestingly, the use of

[65] Ibid.

gardening and horticulture has been used as a therapy tool since the 1700s when it was used to help people with mental illness.[66] However, horticultural therapy began to be used in the U.S. more commonly after World War II when occupational therapists began using gardening as part of their treatment options. By the 1970s, this green therapy was accepted among many different disciplines, and today it is part of treatments used by many doctors, nurses, and therapists.[67]

Research studying horticulture as a therapy for people with physical, mental, emotional, and social disabilities has grown in the last few decades. Studies in the 1980s demonstrated how patients who engaged in horticultural therapy benefited from reduced length of hospital stays as well as reduced quantities of pain medications needed.[68] In addition, horticultural therapy encourages self-care and independence since taking care of plants teaches one that they can also take care of themselves.

[66] Patricia Porchey, "Horticultural Therapy: How Can It Make a Difference in Your Everyday Life," in *Proceedings of Florida State Horticultural Society*, vol. 120 (2007): 351–352.
[67] Ibid.
[68] Ibid.

The basic belief behind this therapy is that plants will respond to anyone who takes the time to care for them. This creates a natural environment of acceptance while also giving a person responsibility.[69]

Specific conditions that improve using horticultural therapy include mental illness, mood disturbances, and some physical conditions as well. For example, gardening can assist with dexterity, mobility, and coordination in people who may have arthritis or stroke-related problems. People with depression, anxiety, stress, and anger may also improve by using horticultural therapy. In addition to being relaxing, horticulture therapy also highlights an accomplishment and promotes self-confidence. Finally, concentration and problem-solving skills are enhanced when taking care of plants, which can help people with memory loss or mental impairments.[70]

By interacting with plants and caring for them, people can better understand vulnerabilities in life. They realize every living thing needs assistance and support. At the same time,

[69] Ibid.
[70] Ibid.

providing care for plants gives people a sense of self-worth and achievement in performing something positive and good. Horticultural therapy therefore encourages healing and good health for people of all ages and with a variety of conditions.

Music Therapy

Music forms a universal bond among people. It helps people express themselves and calms the body and mind through its rhythm, order, and predictability. Throughout time, people have sought music as a means to relieve stress and express emotions, thoughts, and insights. And likewise, music has often served as a way to relieve discomfort. Over the last century, music has been used to promote healing and health; and music therapy can now be found as a form of therapy in hospitals, nursing homes, and community programs. While music has always been known to be therapeutic, recent research also supports its benefits in promoting good health.[71]

[71] Leslie Bunt and Brynjulf Stige, *Music Therapy: An Art Beyond Words* (New York, NY: Routledge, 2014).

Music therapy can best be described as the use of sounds and music to promote physical, mental, social, emotional, and spiritual well-being. Music therapy is performed by a music therapist who uses musical experiences to help others. Music is presented in a structured way to help people progressively achieve goals over a period of time.[72] Music therapy can thus involve a number of activities and experiences. Therapists may use songwriting or music composition, teach individuals about a musical instrument, or have them listen to structured melodies as part of their therapy. Likewise, music and movement activities may be used together, or music may be combined with vocal lessons.[73] Several different musical techniques are useful, depending on the needs of the person.

Music therapy offers many natural benefits. It promotes the ability to sing words in a smooth fashion, which may help someone with a stutter or who has a problem with voice expression. Music also helps with memory recall since words of songs need to be memorized and remembered.[74] Other

[72] Ibid.
[73] Ibid.

advantages include mental and emotional benefits. Music can trigger positive feelings, reduce levels of stress and worry, and increase feelings of better self-control.[75] Finally, music can promote social interactions and greater awareness of the world around us.[76] Music therapy has proven to be useful for several health conditions and is commonly used in many health settings today.

Music therapy has been used in many developmental disorders, such as learning disabilities, autism, speech impairments, and visual and hearing problems. It has also been useful for mental health conditions, such as schizophrenia, depression, anxiety conditions, and personality disorders.[77] Patients with severe pain and with memory loss also benefit from music therapy.[78] Depending on the specific needs a person has, a music therapist can use several of the above techniques to create unique therapy sessions to help them achieve their goals. Music

[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.

therapy is useful in either an individual or a group setting, depending on the situation.

Approximately seventy accredited music therapy programs exist in the U.S. today, and music therapy has been recognized as an important therapy for health and healing.[79] The natural healing effects of music on the body and mind have been demonstrated time and time again. Because music influences how we think, feel, and interact, it helps promote our overall well-being.

[79] Ibid.

AROMATHERAPY

We all understand that smells like the salty ocean air, recently mowed grass, and lush pine trees have a way of making stress melt away. Since ancient times, people have used aromas and fragrances to help promote better health and to relieve stress and worries. This practice continues today in the form of aromatherapy. Through a variety of creams, lotions, compresses, bath salts, and aromatic oils, smells and scents can help the body attain better health.

The way aromatherapy works to promote health and healing is thought to involve two different mechanisms. The first involves the olfactory centers of the brain (those areas which detect and recognize smells) and the way these centers react to various fragrances and smells. The olfactory region is directly connected to the emotional and memory centers of the brain. Therefore, a specific smell may trigger detailed feelings and/or thoughts.[80] This phenomenon explains why a certain smell may

[80] Kathi Keville and Mindy Green, *Aromatherapy: A Complete Guide to the Healing Art* (New York, NY: Random House LLC, 2012).

remind you of some childhood experience or how some odors cause a change in your mood.

The second way smells affect health involves their direct effects on the body. In addition to stimulating the brain, smells also interact with other parts of the body. For example, some scents are believed to influence a person's immune system, making it more reactive and effective. As a result, a person's ability to fight off infections or cancers may be improved. Scents and fragrances do have natural chemicals. Therefore, these natural compounds are believed to promote better health through the chemical effects they have on the body.[81]

In terms of specific ways in which aromatherapy has been used, conditions related to stress, anxiety, fear, and worry are most common. By using specific aromatherapy oils, people experience greater relaxation and more positive moods. Aromatherapy can therefore help with a variety of anxiety conditions, including panic attacks and generalized anxiety. Likewise, aromatherapy can improve depression. Aromatherapy

[81] Ibid.

has also been found to reduce pain levels and decrease medication side effects, such as those occurring with medications used in chemotherapy.[82] The use of therapeutic smells has been found to lower blood pressure, reduce seizure occurrence, and increase memory and attention levels. Also, aromatherapy has been used to treat insomnia, as it helps the body relax and experience deep sleep.[83] Aromatherapy can notably offer a wide range of positive health effects.

Over 130 different fragrances are commonly used as part of aromatherapy. Different aromas are beneficial, depending on the situation and a person's condition.[84] Stimulating our sense of smell encourages the natural healing abilities of the body to take over. This in turn promotes well-being and better health. While the sense of smell may be stimulated by other forms of green therapies described in this book, aromatherapy provides a targeted therapy way to use the sense of smell to help specific health conditions. Combining aromatherapy with other green

[82] Ibid.
[83] Ibid.
[84] Ibid.

therapies can offer cumulative advantages in achieving overall wellness.

Massage Therapy

Another ancient green therapy involves the use of touch to promote health and wellness. Massage therapy can range from superficial to deep and involve several techniques developed over time. Through the application of pressure, tension, motion, and vibration, massage therapy can improve tissue functions, facilitate healing, and encourage relaxation.[85] As a result, massage therapy can improve several health conditions and sustain well-being.

Massage therapy is believed to be a healing therapy for many reasons. First, massage of the body's tissues relaxes the body through the release of natural body chemicals. These natural body chemicals include endorphins and serotonin.[86] Second, massage therapy improves circulation in the body,

[85] Trish Dryden and Christopher Moyer, *Massage Therapy: Integrating Research and Practice* (Champaign, IL: Human Kinetics, 2012).
[86] Ibid.

which provides better oxygenation of the tissues and also enhanced functioning of the immune system.[87] Massage therapy has also proven to be effective in preventing scar tissue formation after injury and in reducing pain. Pain reduction and improved mobility are common reasons people pursue massage therapy.[88] Finally, massage promotes better sleep and restfulness, naturally enhancing health and healing in its own right.[89]

The range of conditions where massage therapy has been used are quite broad. Massage has been shown to help social skills and brain development in children, assisting in their growth and development. Massage can thus aid children suffering from developmental conditions, poor emotional control, or behavioral problems. Likewise, massage can help adults with mood disorders such as depression and anxiety.[90] Because of the mood-enhancing benefits of massage therapy, it is an effective green therapy to use during pregnancy and with cancer patients. And massage therapy is commonly known to help with physical

[87] Ibid.
[88] Ibid.
[89] Ibid.
[90] Ibid.

conditions like headaches, back pain, neck pain, and athletic injuries. Even fibromyalgia patients receive benefit from massage therapy, as massage can both reduce pain and increase energy levels.[91]

The number of massage therapy techniques that have been shown to be helpful are too numerous to detail within the scope of this book. Each technique has been developed over time to address specific aspects of health conditions. Massage therapy is commonly employed by both lay individuals and professionals alike to enhance wellness. By the simple use of touch and manipulation, massage therapy can often help avoid the need for medications or other less natural interventions. And in other instances, it provides an important complementary therapy for health and healing.

Among the contemporary green therapies discussed in this chapter, some are more commonly used than others. For example, massage therapy is routinely used in all areas of medicine while the benefits of music therapy and animal-assisted

[91] Ibid.

therapy may not be as widely appreciated. Regardless, each of these therapies promotes health and healing, and this chapter has explained how each can be useful in specific conditions. Likewise, their use in maintaining good health is well reported in various medical studies. The use of these natural techniques promotes the body's natural ability to heal itself. In some cases, these alternative green therapies work better in conjunction with medical intervention, but in other instances, these green therapies alone may be adequate in helping people attain good health. In the next chapter we will describe examples of how these green therapies have been beneficial in the lives of specific individuals. Through their stories, you can gain a deeper understanding and appreciation of the usefulness of various green therapies.

CHAPTER 4

STORIES OF GREEN THERAPY APPLICATIONS AND SUCCESSES

Green therapies as described in the preceding chapters can be used in a variety of circumstances to assist in promoting wellness and health. However, because the application of green therapies is not well recognized by many individuals, providing personalized accounts of how to use these interventions to help specific health conditions offers greater insights into these treatments. This chapter will enlighten you with personal stories of individuals who have successfully used green therapies to help various developmental, emotional, and physical conditions. By no means are these stories meant to be comprehensive and all-inclusive of how green therapies might be used to promote wellness, but these anecdotes will deepen the level of understanding of how green therapies can be beneficial as independent and adjunctive health tools.

DEVELOPMENTAL DISORDERS

Developmental disorders encompass a variety of conditions that range from learning disabilities to attention deficit disorders to speech impairments and more. Many therapies, such as speech therapy and occupational therapy, offer mainstream care approaches to assist individuals in maximizing their developmental potential through sensory stimulations and modality-specific exercises. In the same way, many of the green therapies identified in this book take a similar approach from a broader perspective. The following stories demonstrate some examples of how green therapies might be used in some developmental conditions.

Kevin's Story – Cerebral Palsy, Learning Disabilities, and Music Therapy

Kevin was diagnosed shortly after birth as having cerebral palsy, and in time, the condition was associated with several learning disabilities. Despite having supportive therapies from speech therapists, occupational therapists, and educational specialists,

Kevin, at the age of ten years, had limited verbal speech, the comprehension abilities of a preschooler, and periodic behavioral outbursts. Each of these problems limited his parents' ability to care for him, and as he had grown in both size and age, the behavioral tantrums were becoming a serious concern. On occasion, Kevin would swing and flail wildly, and though his movements were poorly coordinated, the risk for injury to others was increasing.

Kevin's parents had regularly taken him for medical care, and in fact, Kevin periodically saw a pediatric neurologist who helped coordinate many of Kevin's therapies and treatments. As the behavior became more aggressive, the physician suggested using medications to control Kevin's behavior. But after trying several, either the medications' side effects caused a reduced level of alertness or negatively affected Kevin's abilities in other areas. And many times, the medications did little to improve Kevin's outbursts to any significant degree. Before long, both parents became increasingly frustrated, as nothing seemed to be working for their son.

A few weeks later when Kevin was seeing the occupational therapist, his mother voiced her complaints about his behavior and the problems with the medication. She had taken Kevin off all the medications, and his level of alertness had returned. But at the same time, his tantrums had again increased. The therapist asked if Kevin had ever been considered for music therapy. Kevin's mother had never heard of this intervention, but after hearing about its potential benefits, she called Kevin's doctor and asked for a referral. Fortunately for Kevin, this intervention was covered by his health insurance, and a music therapy center was located at the university medical center. Perhaps this was the answer for which they had been searching.

Within a few weeks, Kevin had an appointment with the music therapist for an initial evaluation, and his parents held out hope that something could be done about the tantrums. By the end of the evaluation, it became evident that the therapist wanted to address much more than just Kevin's behavior. In short, with the use of both passive and active musical therapy, she felt that Kevin's behavior would not only improve but that his speech,

memory, and ability to communicate might be enhanced as well. As she explained, a large part of his behavioral outbursts could be resulting from an inability to express his emotions and thoughts in a more acceptable way. Music might offer that opportunity.

Each week, Kevin spent time with the music therapist. She tried passive listening exercises to help provide calmness and to reduce the tantrums, and she instructed the parents in how to continue using these exercises at home between his therapy sessions. In addition, the therapist got Kevin to actively participate in the creation of music using a simplified keyboard to help him better express his emotions. Over time, he was able to learn and recall some lyrics to songs, which furthered his expression to an even greater extent. Progressively, over a couple of months, Kevin's behavior was much improved, and he showed clear developmental progress in his language and memory abilities.

Kevin's situation is not unusual, and it highlights the holistic nature of health and how everything works together in

unison to create optimal results. For Kevin, his inability to express himself led to worsening tantrums, and the use of medication alone was unsatisfactory in helping this situation. But through music therapy, he gained an opportunity to better communicate his feelings and thoughts, which in turn improved his behaviors as well as his learning abilities. While music therapy did not completely cure his developmental and learning disabilities, it did result in improvements that made his and his parents' quality of life markedly better.

Megan's Story – Autism, ADHD, and Swimming Therapy

My name is Megan, and I am twelve years old. At four years of age, I started taking swimming lessons. At the beginning, learning all the different swim strokes was difficult for me, and as a result, I often thought about quitting. But my parents encouraged me to stay focused and committed to the task at hand. Their words still ring in my head: "Nothing worthwhile is easy or else everyone would do it!"

Through perseverance, I did learn to swim, and in fact I started swimming competitively for the YMCA in my community. Swimming became one of my greatest loves for a variety of reasons. For one, swimming on a team combines individual performance in a team environment. We each compete individually against one another, but at the same time, we win or lose as a team. Because of this, swimming has helped me to develop as an athlete as well as a team member in a setting that is both positive and supportive. Swimming was also an excellent way to exercise and stay fit, and it allowed me to make many friends along the way.

Not long after joining the swim team, I began to see swimming in a different light. My YMCA sponsored a swimming program for children with autism, and several of the program's coaching assistants were members of the swim team. Because some of my friends were involved with the program, and because it sounded worthwhile, I volunteered my time as a coach as well. I soon realized that in addition to the many advantages swimming had offered me, swimming also provided

other important benefits to these kids. As soon as these children jumped into the pool, their mood would suddenly change for the better. A sort of calmness overcame them as the water surrounded their bodies. This made me reflect on how swimming long distances often had the same calming effect on me. It was as though the water simply washed away any stress or worries.

Coaching autistic children and seeing their enjoyment from swimming prompted me to do a little reading. I found out that swimming is helpful for autism because of the therapeutic way the water touches them in a nonthreatening way. This, and the sense of weightlessness in the water, exerted relaxing effects on the children with autism, allowing them to enjoy the moment. Their reactions made perfect sense to me after reading this information. I also learned Michael Phelps, the famous Olympic swimmer, suffered from attention deficit hyperactivity disorder (ADHD) as a child. His mother used swimming as a way to channel his energies into an activity and to help him focus. Certainly this had a positive outcome!

In addition to these benefits of swimming, I later realized how swimming could be an effective exercise to help heal physical injuries. While playing soccer, I tore my anterior cruciate ligament in my right knee, which prevented me from doing many activities, including soccer. Without a second thought, I turned to swimming again to help me stay fit and to enjoy the benefits this type of exercise provided. Being somewhat depressed about injuring my knee, swimming helped me emotionally as well as physically. Not only was it helpful for the rehabilitation and healing of my knee's ligaments, but it also provided me with a sense of peace and calmness that I needed at the time.

I still swim on a regular basis, and at times I have the urge to be competitive. But I can honestly say that swimming has provided me with many benefits that range from physical to emotional to even spiritual aspects. And I have seen how it can help others developmentally reach their goals. In retrospect, I am very glad my parents encouraged me to stick with swimming. I suppose their words of wisdom were correct after all.

Mental Health and Emotional Disorders

The holistic nature of green therapies and their ability to help us reconnect to life, the environment, and our inner needs naturally help enhance wellness in conditions involving mental and emotional health disturbances. While these therapies may or may not provide adequate treatment for some of these conditions, many green therapies are useful adjunctive interventions, as the following stories demonstrate.

Josh's Story – Post-Traumatic Stress Disorder

At the age of eighteen years, I enlisted in the military to defend our country's rights and liberties. I was a proud American who was filled with patriotism and a strong belief that our nation was the best in the world. During my initial four-year stint, times were relatively peaceful, and the call to engage in any type of combat fortunately never came during that time. So after my tour of duty, I was honorably discharged and returned to civilian life. I joined and remained in the military reserves, but I also married, had children, and began a promising career. I was proud to have

served my country, and likewise I took my responsibilities as a reserve officer seriously.

In 2002, my life would be forever changed. I was called back into active duty from the reserves, and within weeks I found myself stationed in Afghanistan in a combat unit in the aftermath of the Gulf War. One of the first things I witnessed after being reassigned was the suicide of one of my fellow comrades. Being away from my wife, my children, and the life I had come to know was hard enough, but the emotional aspects of experiencing death and violence were exceptionally intense. In such settings, however, little time exists to deal with such emotions, and I, like most soldiers, chose to ignore and suppress those feelings, rationalizing them away. At least this strategy seemed to be effective until I returned home.

Witnessing someone take their own life had a profound effect on me. If this soldier had chosen to take his own life to alleviate his emotional suffering, could I possibly do the same? Would the same horrors and worries driving this man to commit suicide plague me as well? Looking at the statistics, the answer

to these questions would seemingly be a strong "yes." Between 2001 and 2006, the number of suicides occurring among military personnel doubled to a rate of about twenty for every 100,000 enlisted soldiers. And amazingly, over 30 percent of these suicides occurred among officers who had never been in combat![92] The writing was on the wall, and before long, I would begin to experience what many of these soldiers had perhaps experienced before they chose to take their own lives.

I eventually returned home, and I thought my memories of the suicide had vanished. In my mind, I assumed my comrade had been weak where I, of course, was strong. But upon returning to my old life, everything became a challenge. Being a husband was difficult, and I became verbally abusive to my children. Slowly, my group of friends began to shrink as they either feared my demeanor or simply preferred not to stick around. I was able to land a job after returning home, but within

[92] Bartley Frueh and Jeffrey Smith, "New Study: U.S. Military Suicide Rate Now Likely Double or Triple Civil War's," *Time Magazine*, 2012, retrieved from http://nation.time.com/2012/08/06/new-study-u-s-military-suicide-rate-now-likely-double-or-triple-civil-wars/.

months, I was let go. Life looked pretty bleak, and thoughts of suicide became increasingly common. Between the feelings of anxiety and depression, my days were miserable. I had never felt so out of place.

One day, someone knocked on my door. I opened the door and in front of me stood a soldier from the local military base. He introduced himself as being in charge of repatriation efforts for service personnel returning from the Gulf, and I soon learned that my wife and friends had contacted him out of concern for my state of mind. As we talked, he began to explain post-traumatic stress disorder (PTSD). I had heard of PTSD, but admittedly I had little real knowledge of what the term meant. But after listening to this soldier describe its effects, somewhere deep down the message resonated with the emotions I had been experiencing.

PTSD is a mental health condition triggered by some type of traumatic event. The event may be purely emotional in nature, or it may involve an array of actual physical traumas such as combat. Afterward, various symptoms begin to develop that can

include profound anxiety, nightmares, visual and auditory flashbacks, intrusive thoughts, as well as mood swings. And while PTSD can develop after any trauma, it is extremely common among military personnel.[93] Being a condition within the family of anxiety disorders, PTSD is often disabling, preventing individuals from returning to a normal level of emotional and mental functioning.

While PTSD symptoms as a post-war condition have always been well recognized, the condition has only recently, in the last few decades, been labeled as PTSD. In the aftermath of the Civil War, for example, the same set of symptoms was labeled insanity or melancholia. After World War I, the same condition was termed shell shock. And after World War II, the label "combat fatigue" was often described.[94] Regardless of the name, the occurrence of PTSD symptoms as well as depression

[93] John P. Wilson, Matthew J. Friedman, and Jacob D. Lindy, eds., *Treating Psychological Trauma and PTSD*. Guilford Press, 2012.
[94] N.A., "'Wartorn 1861–2010' New Doc Chronicles Post-Traumatic Stress Disorder from Civil War to Iraq & Afghanistan," *Democracy Now*, 2010, retrieved from http://www.democracynow.org/2010/11/10/war_torn_1861_2010_new_doc.

and suicide are extremely common after exposure to war. By some estimates, one in five veterans returning from Iraq and Afghanistan today experience symptoms of PTSD or major depression.[95] Sadly, many of these service members don't seek treatment because they fear it will harm their careers or because they fear others will think they are weak.

At first, I resisted what this officer was trying to explain to me. But he was persistent in returning to visit me to see how I was doing and to again talk to me about the effects of PTSD. One afternoon, he described a fishing program that the base offered for veterans suffering from emotional difficulties and PTSD. He explained how fishing offered many benefits to help alleviate anxiety and help promote emotional stability. I had always loved fishing, and after he repeatedly invited me to attend, I eventually agreed to give it a try. It seemed like the path of least resistance since I had no desire to see a psychiatrist or admit I had any real problems. What could the harm be in going fishing?

[95] Ibid.

From the moment I escaped into nature and started fishing, I could feel the peacefulness and calmness surround me. The woods and streams had been a large part of my childhood, and being back in the wilderness was comforting. Fishing demands very little of you except for time, and time out in nature was exactly what I needed. Sitting on a log alongside a pond, the majestic character and expansiveness of the woods and hills surrounding me was more evident. The smell of fresh pine and the sound of the birds and rustling leaves heightened my senses. While these familiar sensations provided a feeling of contentment, the experience also made me aware of a more powerful force in the world. Fishing helped me not only emotionally but mentally and spiritually as well.

Realizing the positive benefits the program had provided, I continued to participate in the fishing expeditions. My wife and friends began to notice my moods and anxieties were less intense. And soon, I agreed to see a therapist at the local base clinic. My journey has been a long one, but without question, I am much healthier today than I was then. The healing power of

nature and wilderness therapy played a key role in my recovery and in recognizing I needed further help and support. I was in a place where I had become disconnected with life, and participating in the fishing program allowed me to begin the reconnection process.

Beth's Story – Depression and Horticulture Therapy

Being depressed was not new to me. In fact, my first bout of depression occurred shortly after my first son was born. Everyone said I just had the postpartum "baby blues," but after hibernating alone in my bedroom for months, eventually I was diagnosed with major depression. At that time, my gynecologist placed me on an antidepressant, and slowly the symptoms resolved. My energy level gradually increased, I stopped crying at the drop of a hat, and I began to smile again. Within a year, I was able to wean off the medicine and once again enjoy my life. I assumed the worst was over.

I was twenty-six years old at that time, and though I had been told depression could recur, I assumed it was gone for good

since I had no plans to become pregnant again. But I was wrong. A few years later, I gradually lost interest in many of the things that I used to enjoy. I could not find any pleasure in going out with friends even though I used to be extremely social. Participating in my son's school activities seemed like a chore. Intimacy with my husband was essentially nonexistent, and I had little interest in trying to improve the situation. I found myself having more and more difficulty getting out of bed. Clearly, I was unhappy, but I had not suffered any major trauma or problems in my life. From the outside looking in, everything looked perfect. But I was anything but fine.

Of course, my husband was the first to notice. "Beth, what's going on? I can't remember the last time you smiled." He was right. He asked if we needed to see a marriage counselor, but honestly, I loved my husband and didn't have any real complaints about our marriage. But I knew that I was unhappy even though I couldn't explain why. At his insistence, I returned to see my gynecologist, who again diagnosed me with major depression. I again tried the same medication, which had worked

years previously, and hoped for the best. But this time the results were not as positive. Six months and three different medications later, I was hardly improved, and my depression felt as though it was consuming me. Something had to give.

My gynecologist referred me to a psychological counselor, and once again, he switched my medication. The psychologist explored many aspects of my life and my history, and what soon became evident was a lack of purpose. Shortly after having my son, I decided to give up my business as an interior designer. I wanted to be a perfect mom, and dedicating my time to my son and family aligned well with my values. But my son had since started school, and I had lost direction in my life. In addition, the notion in my head of what a good mother should be did not include any of the activities I really enjoyed. I loathed housekeeping, carpooling, grocery shopping, and the like. I had chosen to surround myself with activities I disliked simply because I believed this was what I should be doing as a mother.

Of course, I had kept these thoughts within my own subconscious, and only after speaking with the psychologist did these complaints become identified as real triggers to my depression. In addition, I also recalled two of my aunts who had suffered significant depression and one who even committed suicide. Not only had I placed myself in a negative environment, but I also had a genetic predisposition for developing depression. This helped explain my risk for postpartum depression, and the subsequent life choices that I had made explained why the medications had been of little help.

While continuing with counseling, my therapist suggested enrolling in a therapeutic horticultural class that she conducted. Once a week, she met a group of her clients with depression and other mental health conditions at the community gardens where she had rented several plots for gardening. She would assign each of her clients their own area and allow them to grow and care for any type of plants they wanted. At first I thought the idea sounded rather silly, but as she explained how gardening might help me, I became intrigued. Reluctantly, I agreed to give it a try.

Gardening was perhaps one of the best things I could have done to help me snap out of my funk. First of all, the gardens provided me with a sense of escape from my routine life. Being surrounded by plants and the outdoors despite being in the midst of urban sidewalks and buildings provided a peaceful environment that felt more alive. Additionally, caring for my little garden gave me a sense of purpose as I carefully decided which plants to include and how to care for them. Seeing them thrive gave me a great sense of satisfaction as well. Rather than sitting at home ruminating over negative thoughts or feelings of self-pity, gardening kept me active and focused on positive things. And participating in the activity with others made me realize my need for socializing and having my own projects.

Over the next few months, I made many life changes and went back to work. Gradually my mood improved, and happiness again returned to my life. And though I continued the antidepressants for a while, I eventually was able to wean off the medications without my depression returning. Horticultural therapy was an effective way to help me reconnect to the things

that were important to my well-being, because in essence I had lost my way. And I still make time even today to spend a little time gardening at home to help remind me of exactly who I am and what my needs are.

Physical Conditions

The use of natural and green therapies in some health conditions offers direct benefits to specific physical conditions as well. For example, some green therapies interact with our body's chemistry to promote healing and wellness. In other instances, physical touch or stimulation of our other senses helps us regain a sense of well-being and connectedness to others. In the following stories, we provide examples of how some green therapies assist in aiding physical conditions related to natural diseases as well as treatment-induced problems.

A Daughter's Story – AAT and Alzheimer's Dementia

The day my father was admitted to a nursing home was one of the worst days of my life. He had always been a vibrant man who was full of energy, purpose, and focus. His array of accomplishments in school, the military, and even his career as a mechanical engineer were proof of that, in addition to his natural gifts as a father and husband. But two years prior, his memory had begun to fail, and over the course of several months, his personality began to change, too. The pleasant, energetic person I once knew became irritated, frustrated, temperamental, and to a degree, unpredictable. Having been diagnosed with Alzheimer's dementia, he had tried all the common medications and treatments to improve his ability to remember and behave. But after several courses of drugs, his condition was clearly declining further.

One late afternoon, I visited my parents' home unexpectedly. I knocked on the door, but no one answered, so I opened the door and went inside. My mother, likely exhausted from being my father's sole caregiver, had fallen asleep on the

couch as the television continued to broadcast the evening news. And in the reclining chair next to the couch, where my father typically sat, was only a pile of newspapers left in disarray. My father had decided to go looking for an old friend who he thought lived down the street; and after a couple of hours (which seemed like a couple of days), my mother and I found him three blocks from the house, confused and upset. We both knew then that my parents' long-time home would no longer be safe for his well-being.

Unfortunately, my father did not take well to the nursing home environment. Repeatedly, he was agitated, and on occasion, belligerent. On a good day, he might ask to help the nurses in their tasks, and then moments later, begin yelling uncontrollably at them. On one occasion, he convinced the staff to let him pass out dinner trays to other nursing home residents, but this was stopped suddenly when he began hitting another resident's bed with the food tray. Sedating medications became an inevitable treatment for his own safety and the safety of the staff and residents. But as a result of these treatments, my father

slept all the time and barely recognized my mother or me when we visited. The father I had known was no longer there.

A few weeks later, the nursing home arranged for an animal-assisted therapist to provide routine visits to the facility. The dog was a Labrador retriever named Rusty who had been certified as a therapy dog, and to my amazement, my father immediately engaged with this animal. As soon as the dog would enter his room, my father's old familiar smile would return, and a sense of joy became clearly evident. It was the first time we had seen him smile since being admitted to the nursing home. During the visits, my father would gently stroke the dog's hair and even help brush the dog's fur. The visits, which were three times a week, soon became one of the highlights of his week.

After a few weeks, we convinced the nursing home physician to reduce the dose of sedative medication based on my father's improvement in mood. And despite taking a very small dose, his agitation did not return. Seemingly, the visits from Rusty had provided a calmness and sense of connectedness that had not previously been present within his new environment.

And my father certainly enjoyed the visits. Not only did his behavior and spirits improve, but his appetite also increased. Though his memory was no better, and periods of confusion persisted, my father was happier because of Rusty. And because my father's quality of life was better, my mother and I were likewise relieved.

Jessica's Story – Aromatherapy and Breast Cancer

Breast cancer was one of those things that happened to someone else . . . not me. But after feeling a lump in my right breast, the mammogram and subsequent biopsy proved this assumption was wrong. Not only did I have breast cancer, but it was also highly aggressive. Within the blink of an eye, I had undergone bilateral mastectomies, a radical lymph node removal, and was preparing to begin chemotherapy and radiation therapy. Neither my family nor I had time to prepare for the roller coaster ride we were about to undertake.

The ups and downs of being diagnosed with cancer can be described in different ways. First, one's emotions fluctuate on

an hourly basis. One moment you're sad, and the next you're angry. In one instance, the loneliness feels suffocating, and the next, the appreciation for the love and support around you is overwhelming. From fear, to shame, to despair, to hope, one emotion flows into the next; and with each new piece of information, the process often begins all over again. As someone who was always stable in her demeanor, labile emotions were something new for me to manage.

In addition to the emotional fluctuations, physical ones came as well. Chemotherapy and radiation therapy are no joy ride; and despite medications to alleviate the nausea, vomiting, insomnia, and loss of appetite, the side effects of these poisons were profound. Often, I contemplated in amazement the choices people would make in the hope of preserving life that is so precious. Hope remains despite the miseries, and you fight through the discomforts, if not for yourself, but for others who depend on you and love you. Deep down you realize that they would do the same for you, and every possible effort available should be pursued to allow this hope to become a reality.

At perhaps the worst point of my treatments, the nausea and vomiting became awful. I pleaded with my husband to give me another dose of the anti-nausea medication, but it was more than two hours before I could take the next dose. My husband, likely as distraught as I was, had been exploring other options to appease the side effects; and he had come across some other patients who had used aromatherapy oils to help reduce the nausea and restlessness associated with breast cancer treatments. That evening, he used peppermint and lavender aromatherapy to see if it might help my miseries. After applying the oils to my chest, I went back to bed while he set the alarm for ten o'clock, which would have been the time for my next dose of anti-nausea medication. But when the alarm sounded, he found me peacefully asleep. In fact, that evening I slept through the night for the first time in days.

From that point onward, I used different types of aromatherapy oils to help control nausea, aid with sleeping, and to provide relaxation when anxious. Though I still needed the other medications, the essential oils I used allowed me to use the

medications less often, and they gave me greater relief overall when combined with other treatments. I am now three years and four months cancer-free, and I have a new perspective on life and all it holds. And I share my story with other women going through the same ordeal that I did so they can gain some sense of peace and perspective as well. And, of course, I share the benefits that aromatherapy provided me. When you're fighting for your life, every little bit helps; and aromatherapy gave me that extra boost that helped me persevere during my darkest hours.

Chapter 5

Strategies for Self-adoption of Green Therapies

With a better appreciation of the benefits of green therapies in relation to health and wellness, adopting these activities in one's normal routines is the logical next step. Strategies involving diet, activity, sleep routines, and other activities can promote health, and in many cases, can deter or prevent illness. The following sections provide some useful information about how to incorporate green therapies in an effort to achieve better health and wellness through some common-sense approaches.

Dietary Strategies for Wellness

Choosing to implement a healthy diet as part of your wellness efforts is something everyone has complete control over. Proper nutrition allows the body to have needed nutrients, vitamins, and minerals to enable the ability to fight off infections and illnesses while enhancing overall quality of life. A basic understanding of how to adopt a healthy diet offers the opportunity to maximize

wellness. The following represent some simple yet effective ways to utilize this essential green therapy in the effort to achieve health.

- Choose Natural and Colorful Foods – Most individuals fail to include enough fruits and vegetables in their diet on a regular basis, yet these foods offer the highest sources of vitamins and minerals that the body demands for optimal health. Select an array of colors when choosing fruits and vegetables, since different colors suggest different nutrient content. Variety is the best strategy when selecting fruits and vegetables, and striving to eat five servings per day is ideal. In addition, eating these foods either uncooked or steamed preserves nutrients to the greatest degree.
- Pick Healthy Carbs and Avoid Unhealthy Ones – Carbohydrates come in several varieties ranging from simple to complex. Simple carbohydrates, such as sugars, are easily digested and cause a rapid rise (and subsequent fall) in blood sugar levels. As a result, these types of

carbohydrates are associated with food and sugar cravings, weight gain, a higher risk of diabetes, and obesity. In contrast, complex carbohydrates take longer to digest, provide a steadier and more even blood sugar level in the body, and help with digestion. Therefore, choosing complex carbs is preferable over simple carbs to optimize health. Examples of foods with simple carbs are those high in sugar, such as carbonated sodas, candies, pastries, and other sweets. Complex carbs, including high fiber foods, are more often found in whole grains, nuts, vegetables, and fruits. This strategy is important not only for health pursuits but also for maintaining an ideal weight.

- Choose Healthy Fats and Avoid Unhealthy Ones – Healthy fats are generally referred to as mono- and polyunsaturated fats needed to nourish your brain, heart, hair, skin, and other organ systems. Monounsaturated fats (omega 9) are a type of unsaturated fat found mainly in vegetable foods such as olive oil, canola oil, peanut oil,

sesame oil, sunflower oil, nuts, seeds, and avocadoes. Polyunsaturated fats (omega 3 and 9) are found in salmon, herring, mackerel, anchovies, sardines, and some cold-water fish oil supplements. Other sources of polyunsaturated fats are in sunflower seeds, corn, soybeans, flaxseed oils, and walnuts. Research has shown diets with healthy amounts of unsaturated fats have a host of amazing health benefits, including decreased risks for breast cancer, heart disease, stroke, obesity, and elevated cholesterol levels, in addition to other health benefits. In contrast, saturated fats, and particularly trans-fats, have been associated with atherosclerosis, vascular disease, heart disease, stroke, obesity, colon cancer, and other health problems. These unhealthy fats are commonly found in bakery items, fried foods, and fatty (non-lean) animal meats. Avoiding or at least minimizing these types of fats is important in the promotion of overall health.

- Supplement When Needed – Eating a variety and adequate servings of fruits, vegetables, lean meats, and

legumes will often provide the body with essential vitamins, minerals, and other nutrients for well-being. But in some cases, supplements of these micronutrients may be needed to optimize overall health. Iron, calcium, magnesium, and folic acid are examples of such nutrients, as well as water-soluble vitamins, which may require regular supplementation to ensure optimal nutrition.

- Specific Foods to Avoid – Several categories of foods have been shown to have detrimental effects to our health. Specifically, processed foods that contain various chemicals, preservatives, and taste enhancers are less favorable to our health when compared to natural and organic foods. Many processed meats contain nitrites and a high salt content, which can be potentially harmful over time. Even diet sodas, which contain alternative sweeteners, are associated with negative health effects, including obesity.[96] Avoiding these foods, as well as alcohol, is an important dietary strategy for health, while

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choosing natural, organic foods offers much greater advantages.

- Additional Dietary Strategies – In addition to the above guidelines to "green" diet recommendations, strategies in how one pursues nutrition and dieting can also be helpful in attaining healthy goals. First, any diet plan should be simple and achievable. A strict and complicated diet plan is often doomed for failure. Second, pacing and moderation are important. Make gradual changes rather than abrupt, drastic ones, and rather than adopting complete elimination of a specific food or food type, strive for moderating its intake at the beginning with plans to make ongoing progress in time. This allows new habits to develop gradually, which will more likely result in permanent behavioral changes. Third, eat more frequent yet smaller meals throughout the day. Smaller portion size is perhaps the best strategy in avoiding excessive caloric intake, and this strategy also allows one to listen more effectively to the body when it is satiated.

Fourth, when possible, eat with others. This naturally slows down the eating process, as conversation and social interactions allow a slower pace, further preventing excessive food intake. And last, learn more about the foods you are consuming. Read nutrition labels, nutrition articles, and healthy diet recommendations. Behavior often follows our thought patterns, and if the focus of our thoughts is on healthy dieting, healthy eating patterns are likely to follow.

Exercise Strategies for Wellness

While dieting has been attributed to 80 percent of weight loss efforts when compared to exercise, physical activity has many additional health benefits involving mood, mental health, and spirituality.[97] As a result, adopting strategies to facilitate more physical activity into our daily routines offers positive ways to promote health and wellness. Consider the following suggestions

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that may provide a greater number of active opportunities on a regular basis.

- Start with Simple Changes – Many individuals today have jobs where they sit all day in front of a computer. They then find themselves seated for meals, seated while watching television, and lying in bed all night. The actual time spent standing and active is a small fraction of the day, and research supports that prolonged sitting is associated with reduced longevity.[98] By making some simple changes in your day, you can achieve a greater amount of physical activity and reduced sitting times. For example, get in the habit of choosing the parking spot farthest away from the building you're planning to enter. In addition to preserving your vehicle from dings and scratches, the additional distance in walking will boost your activity level. Similarly, instead of taking the elevator or escalator, choose to take the stairs. Rather than hiring a lawn service or the neighbor's kid, decide to

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mow and care for your lawn yourself. And when opportunities permit, insist on standing rather than sitting. By making small adjustments in your daily routine, you can significantly increase you daily activity level.

- Select Fun Exercise Activities – Regular exercise involving both aerobic and anaerobic activities is important for good health, but often going to the gym, running and jogging, or other routine activities can become monotonous. To avoid this natural deterrent, choose exercise activities that are fun and engaging. Perhaps dancing offers a more exciting option for exercise, or maybe community softball, neighborhood basketball games, or tennis is more entertaining. By selecting activities that enhance our senses, we naturally perceive exercise opportunities as more enjoyable rather than laborious. And the chance we will continue such activities over the long haul is much more likely.
- Be Social – In the same way entertaining activities can help distract us from the perceived physical effort

involved, exercising with a group of friends can similarly make an active lifestyle more enjoyable. This could involve group classes, such as spinning, aerobics, or Pilates, or it might relate to team sports and activities within the community. Even bowling leagues offer a social atmosphere to enjoy physical activity. By having social interactions to help stimulate your senses, an array of exercise options become less cumbersome and more attractive.

- Combine Exercise with Other Green Therapies – While exercise is natural in its own right, physical activities are also easily combined with other forms of green therapies. For example, gardening can be physically engaging in many ways while offering the benefits of horticultural therapy. Likewise, hiking, camping, skiing, and other outdoor activities have the additional benefit of taking place outdoors, in their own way a form of wilderness therapy and reconnection with nature. And utilizing music in various ways while exercising can similarly

enhance the experience while providing emotional, mental health, and spiritual benefits. Combining these activities can serve not only to enhance the enjoyment but also augment the healing and health advantages of the activity. Being creative in how physical activity is combined with these other therapeutic endeavors can offer many opportunities for greater well-being.

Strategies for Optimal Sleep

Despite sleep being an inherent requirement for optimal health, about a third of people describe having at least periodic episodes of insomnia. This figure fails to include others with common sleep conditions like sleep apnea, sleepwalking, and more. In addition, over-the-counter and prescription sleep medications represent one of the largest pharmaceutical sellers on the market. Unfortunately, while many of these medications work for a short period of time, they can have significant side effects and/or cause one to become dependent on them for sleep. Rather than pursuing this approach, natural strategies exist that provide more effective long-term solutions for insomnia. Even for those who

require adjunctive medications or treatments, these strategies should still be employed to optimize one's sleep quality and quantity.

- Pursue Consistency – In certain situations and with some activities, consistency may not be required or even desired. For example, eating the same food or meal day after day gets old quickly. But for sleep, sticking to a schedule facilitates better sleep. In fact, changing bedtimes or wake times can result in delayed sleep onset or early awakenings with an inability to return to sleep. The body has an internal system by which its core body temperature varies slightly, thus affecting the specific times one is more prone to falling or staying asleep. Variations in sleep schedules, as a result, can cause misalignment between the body's internal clock and the clock on the nightstand.
- Aesthetics Are Important – An uncomfortable sleeping situation naturally makes sleep less likely to occur. From the bed to the pillow to the room temperature, one should

make sure the bed and bedroom are conducive to optimal sleep. Using a sleep mask, sunlight-resistance shades, a white noise machine, and other measures may be reasonable depending on the situation. But while these techniques are important, too much emphasis can be placed on these aspects alone and should not be the only focus of one's attention.

- Leave Worries Behind – One of the most common causes of insomnia involves stress and worry. In many cases, individuals begin worrying about their daily problems the moment they lie down in bed. Being the first "quiet" moment of the day, trying to sleep permits the mind to roam and contemplate various anxieties and stresses. But a state of anxiety is a heightened state of alertness that naturally opposes sleep. And soon, the bed becomes associated with not only thoughts of stress but also worries about not being able to sleep. Rather than worry in bed, set aside several minutes in the evening to write down worries and list plans to address these worries in

the near future. This will help reduce bedtime thoughts about stress and disconnect the bedroom from the habit of worrying.

- Keep the Bed a Sanctuary – The bed should be used for only two things, and one of them is sleep. In today's world of high-pressure demands, many individuals choose to work in bed, watch television, or even read on their tablet. The problem with these other behaviors in bed relates to behavioral association. Just as Pavlov's dog begins to salivate when the bell is rung, our bodies should associate lying down in bed with falling asleep. Plan other activities somewhere else, and keep the bed reserved for sleep only.
- Have a Thirty-Minute Limit – Did you know lying in bed for extended periods of time can make falling asleep more difficult? In fact, many people make the mistake of going to bed too early to ensure they get more sleep. But because their mind and body are not ready for sleep onset, they lie awake for an hour or more while anxiety

builds about their inability to fall sleep. This anxiety then serves as a detriment to falling asleep. A general rule is to allow up to half an hour to fall asleep, but after this amount of time passes, one should get up or turn on the light and perform a sedentary activity such as reading. Television watching, work tasks, and household chores are not recommended, since these are "activating" behaviors and will make sleep less likely. And one should never "watch the clock," as this similarly stimulates feelings of anxiousness. These simple guidelines can assist in helping sleep come more easily.

- Diet, Exercise, and Sleep Aids – Adjusting one's diet and exercise behaviors can also either facilitate or deter sleep depending on the substance and timing. For example, late-night meals or snacks increase the risk for gastric reflux at night, which may interfere with sleep. Consuming caffeine and other stimulants in the late afternoon hours can have a stimulating effect that lingers and makes falling asleep more difficult. Alcohol is known to specifically disrupt REM sleep and often may cause early morning awakenings. Over-the-counter or prescription sleep aides are often associated with the development of a dependency on these substances to fall asleep with decreasing effectiveness over time. In contrast, herbal remedies, which are typically more natural, engender less risk for dependency than medications and encourage natural sleep onset. Chamomile, valerian, kava, passionflower, skullcap, catnip, and hops are some of these natural compounds used for sleep assistance. Also, performing exercise during the day or early evening (not immediately before bedtime) can also enhance sleep onset and sleep duration. Heeding an optimal diet and activities can further help one's sleep quality and quantity.

Getting Back to Nature

Regardless of whether you live in a major city or in rural farmlands, opportunities to immerse yourself in natural

surroundings and to enjoy the healing qualities of nature are readily accessible. While formal group activities involving nature therapy exist, you can similarly participate in your own version of nature therapies with just a little bit of effort. The following offers some common resources available to anyone wishing to enhance their health through nature.

- Personal Retreats – Opportunities to immerse yourself in natural surroundings are everywhere. If you happen to live in an urban center, parks, preserves, and gardens are usually accessible nearby and can be utilized for you to reconnect with your natural surroundings. Taking a long walk along a nature trail, hiking a mountainside, or sinking your toes in the sand can be extremely therapeutic for the mind, body, and soul. Making the time and committing to these activities is often the bigger challenge, but once you locate natural environments close to where you live, you can enjoy these escapes regularly to facilitate true healing and wellness.

- Gardening and Farming – There is something inherently therapeutic about digging your hands in the soil and cultivating crops. Whether you enjoy flowers or vegetables, or whether you simply like tooling around in the yard, gardening is an excellent way to reconnect with your natural surroundings. For urban dwellers, many cities now have city gardens for personal use. Alternatively, you might find a local farm where you could volunteer to care for farm animals or assist with crop harvesting or care. Cooperatives are often great resources for this as well.
- Creative Explorations – While immersing yourself in nature can be beneficial, working with natural materials can also serve as a strategy for reconnection. Using natural materials like wood, clay, bark, and even grass to construct arts and crafts projects offers another activity for artsy types to enjoy. Whether you choose to make something out of pine cones or draw a picture inspired by

your natural surroundings, artistic pursuits can greatly enhance your connectivity to nature.

- Other Nature-Related Activities – An abundance of options exists when it comes to nature-related activities and your regular routine. In addition to nature hikes, gardening, and artistic pursuits, exploring other events in your community that involve natural surroundings offers other opportunities for wellness and green therapy. For example, rafting, kayaking, rock climbing, and cave exploration groups might be nearby and allow you to combine entertainment, excitement, and nature into your weekly schedule. Meet-up groups and community centers are great resources for some of these activities. In addition, you might choose to participate in conservation efforts in your community. Regardless of what activity you choose, having a regular chance to be out in nature and to reconnect with your natural surroundings can go a long way in promoting positive health and well-being.

SOUNDS AND SCENTS

Many of the strategies associated with green therapy involve a holistic approach to health, and including all our senses in the process of healing facilitates optimal well-being. All too often, some of our senses are neglected in our goal of achieving health. In other instances, we can experience the wrong kind of sensory stimulation, especially with disharmonious smells and sounds. But fortunately, several activities and practices exist that allow you to enhance your health through natural healing strategies related to your olfaction and auditory systems.

- Essential Oils – Did you know that specific fragrances and smells have inherent healing qualities? Suppose you want to feel less nervous. Chamomile, valerian, sandalwood, and lavender fragrances all relieve feelings of anxiety. Likewise, jasmine and orange smells are known to improve your mood, while rosewood and frankincense can help you relax and sleep. A variety of essential oils are available and accessible for you to purchase at local shops, assisting you in promoting your

own health through green therapies. Whether you choose to burn them or place a small amount on pulse points on your body, these fragrances have natural healing qualities.

- Candles and Other Fragrances – Even if essential oils are not readily available, you can achieve the same benefits by using fragrant candles, natural perfumes, or incense. You will want to avoid products with excessive chemicals and artificial ingredients and instead choose smells that align with the health strategy you are seeking. This activity is easy to do and should be included in your weekly routine to augment mental and emotional wellness.
- Selective Culinary Practices – In addition to the dietary strategies that you can pursue for better health, the use of specific seasonings, herbs, and recipes can also fill your home with pleasant smells and aromas that have beneficial effects on wellness. Though not as powerful as essential oils and specific aromatic fragrances, pleasant

smells associated with cooking can trigger positive memories and serve to enhance mental and emotional health as well.

- Vocalizations – For many centuries, a variety of cultures have used mantras and recitations as a form of relaxation and healing. Incorporating the use of mantras into your daily rituals can therefore be a powerful tool to facilitate wellness that is both simple and readily accessible. Whether you choose to sing, recite, or chant, vocalizations can serve to promote feelings of positivity and peace that will improve your sense of well-being.
- Getting in Tune – In addition to mantras, other vocalizations and an array of tuning instruments and devices can be used as part of natural healing therapies. These devices or techniques produce sounds that have harmonious frequencies, resulting in a re-equilibration of your brain waves and enhanced congruence with the surrounding natural frequencies. Tuning forks,

Himalayan singing bowls, and even the use of drums can be used as part of this practice if you choose.

- Sound Awareness Exercises – In today's hectic and populated world, we are often bombarded with harsh sounds and noises that undermine health and wellness. Noise pollution is a real thing, but all too often, we become numb to its presence. Take the time to practice sound awareness and routinely identify the sounds in which you are immersed on a regular basis. Are they natural, soothing sounds, or are they abrasive, anxiety provoking, and irritating? Where possible, choose to immerse yourself in a more natural sound setting and/or those that provide pleasant, peaceful environments. You may choose to play soothing music or simply allow nature to determine the melodies through the course of the day. Either way, the first step requires a heightened awareness of your sound environments from the start.

SEEKING SPECIAL SERVICES

While the activities previously listed can go a long way in promoting self-initiated green therapy as part of life, one may find the services of a specialist are needed or desired. Green therapy, which is also often call ecotherapy, is still a relatively novel area of health and wellness practice from the perspective of the health professions. Therefore, it can be challenging at times to find someone who is knowledgeable in the specific area of green therapy needed. Here are a few strategies that may help you access the services you seek when a specialist is required.

- Search for Specific Green Therapy Services – If you know exactly which services you need, searching local websites and listings for those services may help you access the green therapy in question. For example, searching for animal-assisted therapy is more likely to yield positive results than simply searching for green therapists in general.
- Connect with Local Holistic Providers – Local green therapists often connect with holistic health communities

in the areas they practice. As a result, asking other holistic health providers and practitioners may be a great resource in locating the special services needed. Yoga instructors, massage therapists, and other natural healers often have knowledge about the green therapies available in the area.

- Explore Certification Requirements and Listings – Despite being a relatively new area of health practice, some states do require certifications and licensure for green therapy services. Check with your state to see if such requirements are in place, and if so, ask for a listing of licensed green therapists (or eco-therapists) in your region.
- Contact Mental Health and Rehabilitation Specialists – More advanced and innovative mental health and rehabilitation specialists often refer to green therapists and utilize their services. If other strategies have proven to be unsuccessful in locating the special services needed,

making a formal inquiry into these types of health providers may offer another option to help in the search.

Conclusion

The need for green therapies as an adjunct to healthcare is an obvious one. Chronic diseases are becoming more prevalent, and mental health conditions seem to be increasing significantly. At the same time, traditional healthcare has been more reactionary in the past, but it, too, is realizing the need for proactive strategies to promote health while addressing mental and spiritual health needs in addition to physical ones. Green therapies offer an ideal approach to achieve just that while reducing the cost of healthcare services over time. Holistic, natural therapies can play a major role in advancing the health of our nation and society, and those listed in this book provide a glimpse of therapies that should be more routinely available to all of us.

Certainly, society has advanced in many ways. We enjoy many conveniences today that would have amazed our forefathers in centuries past. We can have almost any type of cuisine we want at any time, regardless whether we choose to purchase it from the grocery store or at a restaurant. We can

travel to multiple cities if we choose all in the course of a day, and we can access information and news from around the world with a few taps of our fingers. But with these advances come challenges. Unhealthy dietary choices have become increasingly common, and the time available for relaxation and exercise has become progressively constrained. Likewise, the settings in which we find ourselves each day involve surroundings that are less and less "natural." In essence, we have become accustomed to a lifestyle that is much more artificial than natural.

Many of us confine ourselves to an office in front of a desk and a computer. We commute back and forth to home inside our cars and subways. Once home, most of our time is spent inside an air-conditioned house, and if we exercise, we might even choose to be inside a gym jogging on a treadmill. In addition to being inside the vast majority of our time, life's fast pace has encouraged us to cut our sleep schedules short, opt for fast food and processed food for our meals, and ignore our bodies' needs for activity. All these things, despite their apparent

advantages in work productivity, are extremely unnatural and counterproductive when it comes to health and wellness.

From this perspective, the solution in pursuing healthier lifestyles and overall wellness needs to include green therapies. By getting back to nature and incorporating natural influences in our lives, we allow our innate healing mechanisms to flourish and function the way they were intended to perform. By selecting natural diets and nutrition, active exercise in natural settings, and opportunities for adequate sleep, we provide our bodies with the necessary ingredients it needs to be healthy and fit. And by avoiding harmful stimuli and environments, we reduce the degree of stress our bodies and mind suffer along the way. This approach to health is not only more logical and commonsensical, but it is also desperately needed in today's society.

As discussed throughout this book, many of the green therapies detailed are now recognized as therapeutic in a number of specific conditions. For some developmentally delayed individuals, animal-assisted therapy and other interventions have shown significant benefit. Likewise, various mental health

conditions and mood disorders respond well to aromatherapy and horticultural activities. Even physical ailments and cognitive problems have been improved by some green therapy techniques. Given the simplicity of these interventions, as well as their minimal costs, it only makes sense that such efforts should become an increasing component of overall healthcare.

Many green therapies have been described in the preceding chapters, including animal-assisted therapy, aromatherapy, wilderness therapy, and more. These holistic services are becoming increasingly popular, and many health specialists are choosing to expand their expertise and skills in these areas. But at the same time, you can incorporate several of these activities into your routine without much ado. Certainly, the easiest ones to start immediately include changes to diet, nutrition, sleep, and exercise, but getting yourself outdoors more often and surrounding yourself with pleasing sounds and smells are also easily within your capability to do on short notice. Each of these activities provide you the chance to take control of your health and realize a much greater quality of life.

Being healthy does not have to be complicated. Most of the time, pursuing wellness involves simply making the right choices when it comes to your lifestyle. Going "green" when it comes to health essentially means adopting a lifestyle that is more natural and self-healing, and this is easily done through the foods we eat, the activities we do, the rest we get, and the environments in which we decide to live. A natural lifestyle thus invites health by giving our minds, body, and soul the things they truly need, and when necessary, green therapies provide natural remedies and solutions to help us get back on track toward wellness. Incorporating these therapies and strategies into your recipe for promoting good health seems like not only the logical choice but the "natural" one as well.

BONUS CHAPTER – GREEN THERAPY ART

Art is often used to channel people's emotions and has proven to be very therapeutic. The following artwork was submitted by people who would like to promote art as a means to help abused and special needs children, including themselves.

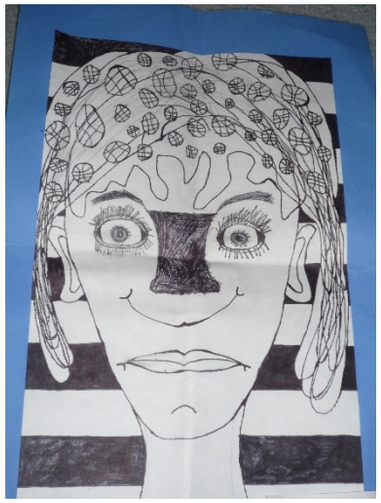
RACHEL HOROWITZ

My name is Rachel. I Work at a YMCA and work with special needs adults in fitness. Behind closed doors in my head I suffer from anxiety, bipolar disorder and post-traumatic stress disorder (from getting bullied). I use photography and paintings for my own therapy. As I do my art work, it's like I vanish in thin air. The paintings are done by using straight edges, spoons, q-tips, plastic wrap instead of brushes. Please visit me at visit at www.horowitzart.com.

ERIC LEE

Eric enjoys playing basketball and soccer as well as working on art projects. He also takes horseback riding lessons, goes to concerts, surfs YouTube videos for music, and sings karaoke. He goes bowling, swimming and to the movies and laser tag with his friends. He also plays tennis and golf, goes hiking and bike riding with his family. He also enjoys cooking and going on vacation. Eric works part time at Burger King and attends self advocacy and youth partnership meetings.

ERIC LEE (continued)



ERIC LEE (continued)

ANNALISE DEBIASI

Annalise is a 7 year-old girl who loves art almost as much as she loves her 9 year-old brother, Alex, who has autism. They have an incredibly strong bond. Alex loves the outdoors. So, so Annalise has dedicated this drawing to him.

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