

Aromatherapy & The Immune System

A Student's Perspective



by Gabriella DeCastro

It is no secret that the world is a toxic place. Every day we are exposed to innumerable disease-causing agents. The quality of the air we breathe and the water we drink is no doubt in decline. Our meat is full of hormones and antibiotics & our produce is sprayed with harmful pesticides. Bacteria have become resistant to even the strongest antibiotics. Every year there's a new flu shot and millions of us head to the doctor to get vaccinated. Many find themselves sick anyway because the shot only works against last year's "bug;" this year the bug has "mutated."

In addition to all these factors, prolonged periods of stress have become the norm for many. Not only do we have to deal with everyday stressors (traffic jams, family problems and demanding jobs) but we can now add a bad economy, the threat of terrorism and pending wars to that list. In the mad rush to survive we forget about taking care of the emotional side of ourselves. In light of all these factors it's no wonder that disease takes hold.

The human body, with its intricacies, beauty and mysteries shows a remarkable ability to survive. Cells, organs, proteins and hormones, each one essential to our body's proper function, all work together in order to keep us alive and healthy. At the core of our ability to stay alive lies our immune system, a system of astonishing complexity. Researchers discover something new about immunity virtually everyday. However, many questions remain unanswered. Two concepts, nonetheless, seem to have withstood centuries of research

on the human body: balance and integration. In health, all of the body's systems and functions are in balance and well integrated. No process in the body occurs in isolation; complex processes are dependent on seemingly small ones, showing the body's extraordinary degree of integration. When physical discomfort occurs the body reacts in ways that will bring it back to equilibrium, demonstrating its innate desire for balance. However, many factors can upset this equilibrium. This lack of balance sets off a chain of reactions that can cause disease.

Thus, the question arises: Can we help our bodies maintain or achieve balance and integration? The answer is a resounding: Yes! Disease does not occur in a vacuum. There are environmental, nutritional, emotional, mental and genetic factors that play a role in our health. Addressing disease as a manifestation of a dysfunction of the whole person, not just of our physical health, is the key to a healthy life. Alternative practices offer a holistic view of health. Among these is aromatherapy, an art and science that seeks to enhance the body's own ability to heal and attain balance through the use of essential oils.

Aromatherapy offers us a multilayered approach to health that addresses the body, mind and spirit.

What is the immune system?

Alternative Medicine. The Definitive Guide states that "the immune system is a complex network of specialized organs, cells and substances that acts as the body's

primary defense against disease and a wide variety of bacterial, viral, and fungal infections, all of which we come in contact with simply by breathing, eating, and the acts of everyday living. In addition, on a daily basis many cells are damaged or killed due to trauma, toxins, microbial attack, and other processes in the body. The immune system is responsible for removing such cells, a task it can only perform if healthy."¹

The immune system protects us against the millions of viruses, bacteria, parasites and fungi to which we are exposed on a regular basis. In addition to this, it protects us from our own unhealthy cells (free radicals) by disposing of them before they can reproduce and become a problem.

So how does the immune system accomplish this? How does it defend us against all these enemies? The processes involved in immunity are so complex that researchers have just begun to understand their intricacies. They tell us, however, that immunity begins at the cellular level. The cells primarily responsible for keeping us healthy are our white blood cells. To understand these cells we need to take a closer look at the composition of blood.

Blood Composition

Often referred to as "the river of life," blood is the transportation vehicle for substances responsible for sustaining life and promoting wellbeing. Blood carries oxygen from

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the lungs to the rest of the body, and transports carbon dioxide from body tissue to the lungs. It also carries nutrients and hormones secreted by different glands throughout the body. But more importantly blood transports disease-fighting substances throughout the body.

Plasma contains proteins, enzymes, electrolytes, sugar, glucose and fats and constitutes 55 percent of the blood. The other 45 percent of the blood is made up of cells, including red blood cells (erythrocytes), white blood cells (leukocytes) and platelets (thrombocytes).

Red blood cells are responsible for carrying oxygen to all other cells in the body. Platelets help cuts and wounds heal. White blood cells form the army of the immune system. Although all these cells depend on each other to keep a person healthy, it is the work of white blood cells that is at the core of our immune system.

Blood and lymph are the transport mechanisms for leukocytes (white blood cells), the basic units of immunity.

Leukocytes

White blood cells, or leukocytes, come in different sizes and perform different functions. Leukocytes all have a nucleus, which contains the material for growth, nourishment and reproduction. All leukocytes arise from a stem cell, or parent cell, located in the bone marrow. Stem cells give rise to different types of blood cells, which then mature into different types of cells depending on where in the body the maturation process takes place.

All the body's leukocytes fall into one of three categories: polymorphonuclear granulocytes,

monocytes and lymphocytes. Each of these has its own role to play in immune function.

Polymorphonuclear granulocytes (polys): These cells form the first line of defense. They don't have a specialized function: they can attack all foreign intruders. Polys include neutrophils, eosinophils, basophils and mast cells.

♦ **Neutrophils:** These cells are extremely mobile. Neutrophils are phagocytic cells, meaning that they can engulf other cells, microbes and other particles. Neutrophils play a major role in the inflammatory response. They comprise 55-70 percent of all white blood cells.

♦ **Eosinophils:** These cells are phagocytes. It is believed that they play an important role in regulating the severity of allergic reactions by secreting an enzyme that breaks down histamine. They also seem to be involved in combating parasites. Eosinophils comprise 1-3 percent of the total of white blood cells.

♦ **Basophils:** These cells are not phagocytic; however, they are responsible for releasing histamine, a chemical involved in the allergic response. Basophils also release heparin, an important anticoagulant. These cells are found in small numbers in the blood, accounting for less than 1 percent of all white blood cells.

♦ **Mast cells:** These cells are similar to basophils, but they do not circulate in the blood. Mast cells can be found closer to the skin and are very active in the allergic response.

Monocytes: These cells make up 3 to 8 percent of all circulating leukocytes. They are phagocytic. Although monocytes are active in the immune response, their most important role is to mature into macrophages.

♦ **Macrophages:** These are very large and extremely "hungry" phagocytic cells that can not only circulate in the bloodstream, but also settle in the spleen, liver, lymph nodes, tonsils, lungs and bone marrow. There they can engulf aging or damaged cells and microbes. They are also good defenders against fungi. Along with the neutrophils, macrophages are the body's major phagocytes.

Together, neutrophils, monocytes and macrophages play a major role in the inflammatory, or nonspecific, immune response. These phagocytes are able to engulf invaders and abnormal cells and then help to clean up after the immunological response. However, as we will see later, monocytes and macrophages are also involved in the more specific immune response.

Lymphocytes: These are very specialized leukocytes and comprise 20-50 percent of all leukocytes.

T-cells: These cells are called T-cells because they mature in the thymus. They comprise 60-70 percent of lymphocytes. When humans are still in the fetal stage of development, immature stem cells migrate from the bone marrow to the thymus, where they become T-cell "parents." The progeny of these cells endure a selection process that weeds out T-cells that are abnormal or have receptors that recognize normal body structures.

The cells emerging from this

process are programmed to respond to a single enemy. They then migrate to the spleen and the lymph nodes and await an attack. These cells now compose what is called **cell-mediated immunity**. T-cell receptors are made of proteins and they specialize in identifying viruses and other organisms that invade a cell.

There are three basic types of T-cells:

♦ **Helper T-cells:** Most abundant T-cells. They stimulate the growth of cytotoxic and suppressor T-cells. They also stimulate macrophages to perform their engulfing duties and B-cells to produce antibodies.

♦ **Cytotoxic T-cells (killer cells):** These cells attach to specific antigens and secrete enzymes to puncture the shells of the invaders.

♦ **Suppressor T-cells:** These cells suppress the active immune response. They keep the immune system from becoming overactive.

B-Cells: These cells comprise 10-20 percent of all lymphocytes. Once a stem cell produces a descendant, the stromal cells of the bone marrow decide whether this cell will become a B-cell or another cell type. Once a cell is designated as a B-cell, a specialized structure called the surrogate complex determines which cells will survive and be allowed to circulate throughout the body. The B-cells that survive migrate to the lymph nodes and spleen to await action. B-cells are especially adept at catching intruders like bacteria. B-cells fight intruders by manufacturing antibodies. This type of immunity is known as **humoral or antibody-mediated immunity**. Antibodies are

very specific; each one can bind to only one specific antigen. This binding helps destroy that particular antigen. Antibodies come in five different types: IgM, IgG, IgA, IgE and IgD. Ig stands for immunoglobulin.

♦ **IgM:** is the first antibody to appear in response to an invader. It attaches to the intruder and marks it for destruction by phagocytic cells. It remains in the blood stream and it is very effective against bacteria. However, its effects are very short-lived.

♦ **IgG** is the most abundant antibody and it provides lifelong immunity against a specific antigen. It can enter tissue spaces and is the only antibody able to pass through the placenta, giving the fetus its immunity.

♦ **IgA** is found in wet surfaces such as saliva, tears, nasal and vaginal secretions. It fights off invaders at the sites of entrance.

♦ **IgE** is able to adhere to mast cells and basophils to release histamines responsible for allergic reactions. It is also involved in the fight against parasites.

♦ **IgD** almost exclusively found inserted into the membrane of B-cells, it seems to regulate the cell's activation.

♦ **Natural killer (NK) cells:** These are lymphocytes that are granular in appearance. Their role is nonspecific. They can destroy invaders, specifically cancer and virus-infected cells, without assistance from other cells.

The Communication System

As expected, in order for all these specific and non-specific

leukocytes to perform their duties, there has to be an effective communication system in place. How do these cells “speak” to each other? Through proteins called cytokines. Manufactured by monocytes, macrophages and lymphocytes, these proteins regulate cell growth and function during inflammatory and specific immune responses. Among these proteins are interferons, interleukins, tumor necrosis factor, colony-stimulating factor, and erythropoietin. Cytokines can enhance inflammatory and immune responses, and can inhibit these responses in the fight or flight response. (see section on Stress and Immunity).

The Immune System at Work

When a macrophage attacks an antigen, it takes fragments of it to helper and suppressor T-cells. In turn, these orchestrate a response. Helper T-cells always want to send too many cytotoxic T-cells to fight, while the suppressor T-cells never want to send enough. Together they arrive at a balance. The cytotoxic T-cells are sent to fight armed with enzymes, when they find the invader, they can use these enzymes to drill holes on its shell causing its insides to pour out. Phagocytes arrive and clean-up debris. This is cell-mediated immunity.

Humoral or antibody-mediated immunity involves B-cells and T-cells. It is a highly sophisticated response. When the macrophages cannot handle a foreign invader, they surround the entire antigen, dissolve most of it, and carry back molecular fragments of the antigen to the helper and suppressor T-cells for examination. If antibodies are needed, antigen fragments are presented to B-cells. A portion of B-cells transform themselves

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into plasma cells and start manufacturing antibodies, mostly of the IgM type. Antibodies are displayed on the surface of B-cells like antennas, ready to lock on to invaders. Once the B-cells label the invaders with antibody, a signal is sent to phagocytic cells to devour the intruder.

The remaining B-cells become memory B-cells, which remember a particular antigen and remain on alert for future invasion. The next time memory cells are presented with the same antigen, they will be able to respond more efficiently to the attack by quickly becoming plasma cells and secreting antibodies (mostly of the IgG type).

Disorders of the Immune System

Many things can go wrong with our immune system. An underactive immune system is not able to successfully combat the many bacteria, viruses, parasites and fungi that we come in contact with in our daily lives. An overactive immune system may react to harmless foreign substances, causing allergies.

The immune system can also mistake normal body tissue for a foreign antigen and attack it, as is the case in auto-immune diseases, such as AIDS and lupus. In cancer, abnormal cells reproduce uncontrollably. This can happen in any organ in the body, including the immune system. Leukemia is an example of abnormal cell reproduction in the immune system.

In his book Total Wellness, Dr. Joseph Pizzorno lists a number of factors that have a detrimental effect on our immune system. Among these are stress, obesity, excessive sugar and concentrated carbohydrate consumption, nutritional deficiencies,

toxic chemicals, excess alcohol consumption, overuse of antibiotics, drugs like aspirin, ibuprofen, acetaminophen and corticosteroids, frequent exposure to infectious agents like viruses, bacteria, parasites and fungi, and the list goes on. At some point in our lives, we all have been exposed to at least some of these factors and/or engaged in some of these behaviors.

Remaining healthy and improving our quality of life is a choice. We can look at the list above and see a few items on which we have direct control. We can definitely make good nutritional choices and reduce our consumption of alcohol. There are many natural alternatives to aspirin, steroids and antibiotics. One of the most important things you can do for yourself is to learn how to manage stress.

Stress and Immunity

So what does stress have to do with immunity? Robert M. Sapolski in his book Why Zebras Don't Get Ulcers argues that "a period of stress will disrupt a wide variety of immune functions—the formation of new lymphocytes and their release into the circulation, the time preexisting lymphocytes stay in circulation, the manufacture of antibodies in response to an infectious agent, and communication among lymphocytes through the release of relevant messengers, to name just a few of these actions."²

To better understand how stress has such impact on immunity, it is vital to understand the basics of the stress response. At the heart of the stress response lies the autonomic nervous system. This system consists of two branches: the sympathetic and

the parasympathetic nervous systems.

The sympathetic nervous system has nerve projections that start in the brain and extend to the rest of the body. It responds in cases of real or perceived danger. In these types of situations the system responds by releasing adrenaline from its nerve endings in the adrenal glands and noradrenaline from nerve endings throughout the body. These two hormones prepare our bodies to "fight or flight," diverting blood flow from the heart to the muscles.

The parasympathetic nervous system acts in opposition to the sympathetic nervous system. Where the sympathetic system speeds up our heart rate, the parasympathetic slows it down.

Another hormone that plays an essential role in the stress response are glucocorticoids. In stressful situations, the hypothalamus secretes a set of hormones into the pituitary, among these is CRF (corticotrophin releasing factor). CRF then triggers the pituitary to release ACTH or corticotropin. When ACTH reaches the adrenals it causes them to secrete glucocorticoids, which act similarly to adrenaline but can be active for minutes or hours.

In addition to the hormones discussed above, in stressful times the pancreas secretes glucagons, which in combination with glucocorticoids, adrenaline and noradrenaline are responsible for mobilizing energy to the muscles in the form of glucose. Stress also triggers the release of prolactin and vasopressin by the pituitary. The first suppresses reproduction and the second displays antidiuretic effects. Both the pituitary and the brain secrete endorphins and

enkephalins, which are responsible for an analgesic effect at the site of pain.

In addition to all this hormone activation and suppression, hormones related to growth are inhibited in stressful times, as are testosterone, estrogen and progesterone. It makes perfect sense from a survival point of view. When we are in real or perceived danger, our bodies have evolved to divert energy to those parts that can get us out of the mess we're in—our muscles.

The stress response is a great mechanism to get one out of a dangerous situation. So what is so wrong about being stressed out? Why is it harmful to our immune system? The problem arises when we go through periods of prolonged stress. Robert Sapolski argues that glucocorticoids play an active role in immune suppression. These hormones inhibit the production of new lymphocytes in the thymus and the release of messengers like interleukins and interferons. They cause lymphocytes to be pulled out of circulation and can actually enter lymphocytes and cause them to manufacture a suicide protein that disintegrates their DNA.

As a result, in long periods of glucocorticoid secretion we're left with fewer lymphocytes and, in the absence of cytokines, the few that are left can't even communicate with each other! Ironically, a mechanism set in place to save our lives can actually kill us.

As we can see glucocorticoids are major players in suppressing the immune system; however, they do not act alone. Adrenaline and noradrenaline, CRF and beta-endorphins are also involved.

Depression is another enemy of the immune system. Michael

Alexander, in his paper entitled "*Aromatherapy and Immunity*", refers to one study that shows that fluctuations in mood can affect the amount of IgA in the subject's saliva. IgA, as mentioned earlier, is the type of antibody that is found in the body's wet surfaces (saliva, tears, vaginal secretions). IgA levels are higher when the subject is in a good mood.

In the same paper, the author adds "Investigators have revealed many immunological changes associated with depression. Among the more prevalent of these changes are reduction in natural killer (NK) cell activity, lymphocyte responsiveness (T- and B-cells) and immune control over, for instance, latent herpes viruses."

Aromatherapy and Immunity

Now that we understand the basics of our immune system and have an idea of how stress can have a negative impact on it, we're ready to discuss how aromatherapy can help us fight disease.

Aromatherapy is both a psychological and physical healer. It is a discipline that treats the individual as a whole. When it comes to our immunity, aromatherapy can help us by working on both the psychological and physical level. It can improve our emotional health as well as support our bodies against microbes.

As aromatherapists we begin the process of addressing a client's issues with a consultation. We become familiar with the client's symptoms, lifestyle, level of stress and other matters of consideration. We then create a program, which addresses the client as a whole. For example, for a stressed client we choose oils that address both the psychological symptoms like fear, anxiety, withdrawal

and depression, as well as the physiological ones like increased heart rate, elevated blood pressure, etc. We choose oils that are sedative, antispasmodic, uplifting and deemed appropriate for the individual client.

We choose the appropriate essential oils, methods of application and dosages based on the unique chemical constitution of each oil and its known effect on the psyche and the body. Contrary to popular belief, aromatherapists don't just choose oils because they smell good. As professionals, we guide ourselves by the body of evidence and by experience.

Research and experience show that essential oils can be effective in achieving and maintaining a healthy immune system in three ways:

- They can be used as tools to de-stress and uplift.
- The antiviral, antibacterial, antifungal and antiparasitic properties of essential oils are well-documented. Essential oils can attack antigens at the cellular level.
- Certain essential oils can strengthen aspects of our immune system, thereby by making the body a less friendly place for foreign invaders.

Essential Oils Working Against Stress Through the Psyche

To work on a psychological level, essential oils must act on the central nervous system. According to Robert Tisserand, essential oils can have an effect on our central nervous system in two ways. The first would occur via our olfactory nerve. Stimulation of this nerve would cause "aromatic" messages to reach the limbic area of the brain, comprised of the pituitary, the thalamus, the hypothalamus, the hippocampus, the amygdala and the pineal glands.

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The second mechanism in which essential oils could have an effect on the central nervous system would be by being absorbed into the bloodstream via the olfactory membranes. Robert Tisserand argues that it could be possible that essential oils act in both ways. This seems to be the consensus in the aromatherapy community.

Here's what some authors have concluded about the effect of essential oils on the psyche:

- ♦ In his book *Advanced Aromatherapy*, Kurt Schnaubelt states that "The citronellal of melissa and *Eucalyptus citriodora* and the linalol found in lavender are among the components with the strongest sedative effects. Also, the limonene of lemon has a significant calming effect. Oils derived from melissa, *Eucalyptus citriodora*, lemon, verbena, citronella, and other oils with a high aldehyde content also have a sedative effect." The author later states that "The phenylpropane ethers, especially estragole (methyl chavicol) stabilize an overactive sympathetic nervous system (sympatholytic effect) and restore a healthy balance between the sympathetic and parasympathetic nervous systems."

- ♦ In the same book, Schnaubelt adds that "For their effects on the central nervous system and stress-related symptoms, oils with a high-ester content, such as clary sage and Roman chamomile, are equally effective antispasmodics. They reduce tension in stressful situations or with premenstrual discomfort."

- ♦ In his paper entitled "Aromatherapy as Mind-Body Medicine", Robert Tisserand states that "The vapours of several essential oils have been found

to significantly reduce a stress-induced rise in blood pressure, indicating a stress-counteracting effect. These include neroli, nutmeg and valerian (Warren et al., 1987)."

- ♦ In another paper entitled "Success with Stress", Tisserand refers to a study that shows that menthol can lower blood pressure through vasodilation. He also cites other studies that show calamus, carrot seed, melissa and tagetes lower blood pressure.

- ♦ Shibata et al. (1990) showed that labdanum, oak moss and tuberose can block the activation of the hypothalamus in response to acute stressors after four days of treatment.
- ♦ Peter Holmes, in his paper "Uplifting Oils", argues that the oils of rose, ylang-ylang, clary sage, atlas cedarwood, sandalwood, myrrh and valerian have a sedative yet euphoric effect. This is achieved by the oils working through the raphe nucleus and thalamus to release serotonin and GABA, and enkephalins. These oils would work for an individual who is suffering from depression involving nervous hyperactivity and restlessness.

- ♦ In the same paper, Peter Holmes lists fir, tea tree, niaouli, cypress, lemon, rosemary and holy basil as restorative oils. Working through the locus ceruleus, hippocampus and amygdala, these oils can influence the release of noradrenaline, dopamine and other hormones. These oils would be useful for cases of depression which are accompanied by low energy, fatigue, and despair.

One could go on and on presenting research. The truth is that these are a few examples of the research that has been taking place in the last few decades. There's plenty of evidence that leads us to believe that aromatherapy can help immensely in

stress management and thus help us to maintain a healthy and balanced immune system.

Essential Oils Working at the Cellular Level Against Microbes

Much has been written about the antiviral, antibacterial, antifungal and antiparasitic properties of essential oils. It is speculated that these oils are effective against microbes because they possess the ability to penetrate their cell membrane and influence cellular metabolism.

- ♦ In the antibacterial aspect of oils, one of the most significant advances was made by Paul Belaiche in his 1979 work *Traité de Phytothérapie et d'Aromathérapie*. By using the aromatogram method, he was able to prove the effectiveness of individual oils on specific bacteria. He not only did this in a lab, he actually treated individuals with infectious illnesses. He concluded that oils could be grouped in three categories. He referred to oregano, savory, thyme and clove as the oils with the broadest spectrum of efficacy (in later studies Belaiche added tea tree oil to this list). Pine, cajeput, *Eucalyptus globulus*, lavender, myrtle, geranium, petitgrain, tarragon, niaouli and *Thymus serpyllium*, were grouped as oils effective against a certain types of bacteria. With the final group having a strengthening effect on the immune response but not directly active against bacteria.

- ♦ Extracts from plants belonging to the Lamiaceae family have shown antiviral properties. Among these are rosemary, clary sage, lavender and melissa. Extract of melissa is used in Germany as the active ingredient in a

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cream to treat herpes.

- ♦ In a 2000 study, an Argentinean team of researchers (Benencia & Courreges, 2000), after conducting a study to examine the antiviral activity of eugenol (a constituent of clove oil), concluded that eugenol was indeed effective against the herpes simplex virus, the oil seems to act by dissolving the viral lipidic envelope.

- ♦ Essential oils of *Thymus vulgaris* and *Origanum vulgare* exhibit anthelmintic properties, meaning that they destroy or expel intestinal parasites. This is due to their carvacrol content. The 1,8 cineole found in the different eucalyptus species and in cajeput, for example, is also known to exhibit anthelmintic properties.

- ♦ The fungicidal activity of essential oils can be seen in oils rich in esters like lavender and geranium. However, strong antifungals also include oils lacking in esters such as tea tree, melissa, myrrh and patchouli.

Essential Oils Strengthening Our Immune System

Rosalind Blackwell and Michael Smith make an interesting argument in their paper entitled “*Aromatograms*”. They argue that while conventional antibiotics act by slowing down or stopping bacterial growth or by directly killing bacteria, essential oils have the added benefit of acting on the environment in which bacteria grow. In other words, essential oils somehow strengthen the immune system so that it can battle antigens better.

Here is some of the research that supports this idea:

- ♦ Robert Tisserand states that the oils of cardamom, eucalyptus, ginger, dill,

nutmeg, lemongrass, lemon and orange stimulate the phagocytic activity of leukocytes.

- ♦ In a very exciting 1999 study, a team of researchers conducted an experiment in –vitro, the results of which showed that tea tree oil and terpinen-4-ol “can markedly increase the ability of certain white blood cells in the immune system to destroy microbial cells that have been attacked by antibodies”

- ♦ Kurt Schnaubelt states that thymol and thujanol “stimulates the immune response as well as the regeneration of liver cells.”

- ♦ Schnaubelt offers that studies suggest that immunoglobulin levels in the blood can be raised or lowered by the use of essential oils. He argues that in conditions that show a depressed gamma-globulin level, savory, thyme (linalol type), spike lavender, and *Eucalyptus globulus* have the ability to restore the antibody to a proper level.

In cases of immune suppression, Borneol, abundant in Moroccan Thyme, is very effective in normalizing high levels of immunoglobulin.

Conclusion

As we have seen essential oils offer us a holistic way of looking at health. Where orthodox medicine has failed to treat us as multifaceted beings by simply targeting symptoms, aromatherapy succeeds at maintaining and promoting our psychological, as well as physical and emotional wellbeing.

Orthodox medicine tends to take a “one size fits all” approach, where there is one remedy for a symptom. The remedy prescribed is the same for everyone, regardless of the cause of the symptom. In contrast, aromatherapy treats each of us as

unique individuals who are never static. This results in care plans that are customized to our specific needs in a specific time.

Aromatherapy empowers us to take charge of our own health. More often than not, orthodox practitioners take a “disease just happens” approach. This is disempowering. It leaves us feeling victimized and at the mercy of invasive treatments that often result in a weakened immune system. Essential oils, when administered properly have no harmful side effects.

The truth is that health is a conscious choice. As we just learned, there are many factors that can impact our health. Many of these are factors over which we have control. To attain and maintain health, we must choose to use healing tools that honor all the parts of ourselves. Aromatherapy is one of those tools.

Our bodies have the capacity to heal; our immune system and its complex processes are a perfect example of that. Aromatherapy offers us a natural and safe way to support the body’s innate power to heal itself.

**Bibliography available upon request.

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