

Yoga: A Tool for Change

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Introduction

With the ever changing world around us, there has been a rise in mental and physical imbalance. Data shows that nearly twenty percent of adults in the United States suffer from some type of mental illness (NAMI). Over half of the country suffers from some type of chronic disease, equaling out to millions of people in pain and poor health (CDC). There is something wrong with this picture, which is why there seems to be a search for a remedy that can bring peace, health, and happiness into the lives of people here and all over the world. The cliché rings true, happiness comes from within. It is not unreasonable to assume the same thing of our health. The search, perhaps, should be for the tools to create balance in the mind and body from the inside out. The tools exist and are not only more accessible than one would think, but they are also in alignment with nature. Research has shown that yoga can be used to help with weight loss, stress reduction, improved cognitive function, and even empower the mind in such a way that gives smokers the ability to quit. It is a habit creator and a movement maker – both of which modern humans need more of. While yoga is, by no means, a cure all, it is a valuable tool for change. When aspects of the physical, mental, and community practices of yoga are properly utilized together, it can drastically impact many imbalances of mind and body for the better.

What is Yoga?

Without diving too much into the philosophical meaning, the definition of Yoga is “a system of physical postures, breathing techniques, and sometimes meditation derived from [traditional] Yoga, but often practiced independently, especially in Western cultures to promote physical and emotional well-being” (Merriam-Webster). The literal meaning of the word “yoga” is “to yoke”, to bring together mind and body, embodied in human consciousness (Shaw 3). It is

nearly synonymous to the word “meditation” and was intended as a spiritual awareness practice. It is thousands of years old, stemming from ancient religious practices of Hinduism, Buddhism, and Jainism. While it was originally used for religious purposes, it has developed into a mind-body practice with no religious affiliations here in the United States. Yogic breathing and movement integrate a meditative quality, tying in both mental and physical health benefits. On top of the practice itself, yoga offers a sense of community with other practitioners. As the reader learns throughout this discussion, “yoga” is not just the poses on the mat. It is a movement practice, a meditative practice, a source of connection to the body, to the world, and to others.

Yoga Impacts the Physical Body

Especially in the United States, yoga has been regarded as a type of exercise with thousands of studios, fitness centers, and online platforms offering it all across the country. The practice has branched off in several directions, offering different styles, paces, levels of difficulty, and even temperatures at which the consumers practice. While props may be used, this is a practice that can be done entirely with just the human body. Because it is a practice using the practitioner’s own body weight, the strength it builds is even and natural; meaning there is a balance between the strength and flexibility throughout the whole structure. They increase at the same time. For example, heavy weight lifters who never stretch nor move out of the regular ranges of their workout may experience great strength, but they will be lacking in flexibility. Yoga allows both of these aspects to build in unison.

Weight Loss

Yoga aids in building strength and muscle, but studies have found that yoga alone (meaning, the physical practice) only burns about 183 calories per hour of Hatha practice (a slow flow yoga session in which movement is matched to breath), according to a study done by Mayo

Clinic (Frothingham 2019). However, there are more heat-building types of yoga that would significantly increase the amount of calories burned such as Bikram Yoga. This style is practiced for an hour and a half in a room with the heat cranked up to 100 or 105 degrees Fahrenheit. Studies have found that Bikram yoga burns more than double the calories of Hatha, with women burning 330 calories and men 460 calories, in one practice alone (Frothingham 2019). Other sources share that the average male will burn 673 calories in a Vinyasa class (includes a faster pace with more challenging poses), while the female counterparts burn about 515 calories (Pitz 2016). The type of yoga, length of session, frequency of practice, and variations of poses are, of course, all factors in if and how the physical practice will help with weight loss. The nutritional plans and regular diets a practitioner follows play a large role as well.

What is interesting is that yoga as a whole offers more than just calorie burning and muscle building. Popular research by the Framingham Heart Study reveals that obesity has a tendency to run in social circles. This means when an individual participates in social circles with others who are also overweight, it is then, socially acceptable for the individual to be obese (Ross, A., et al.). With this in mind, one would find it more socially acceptable, in fitness and yoga atmospheres, to be more health conscious and fit. On top of that, involvement in a studio community offers a sense of support to practitioners, which encourages healthier lifestyles (Ross, A., et al.) In fact, a study conducted on weight loss concluded that yoga offered multiple tools to aid in wellbeing:

“The findings of this study imply that yoga may offer diverse psychological, physical, and social effects that may make it a useful tool for healthy, sustained weight loss. The yoga practitioners reported less stress eating, reduced appetite, fewer cravings, and a shift toward healthier, more mindful eating. Yoga provided them with social support and healthy role models. The subjects believed that yoga led to physical and psychological changes that supported weight loss including increased muscle tone, improved metabolism, reduced stress, as well as increased awareness, improved mood, and greater self-acceptance and self-esteem. This weight loss

experience was markedly different than past attempts, in that the weight loss was easier, and subjects felt more confident in their ability to maintain lasting weight loss.” (Ross, A., et al).

Along with social support and other psychological benefits that aid in weight loss, yoga also helps its connoisseur with better sleep. The National Sleep Foundation found with a variety of test subjects that yoga improves quality and quantity when it comes to sleep. (“How Yoga Can Improve Your Sleep Quality”). Better sleep means better overall bodily function and fat burning throughout the twenty-four hour span of the day (Frothingham 2019). Practicing on the mat alone may not provide much of the aerobic activity needed for weight loss, but the mindset and community that comes with it, aids individuals in maintaining and improving their health.

Flexibility

As mentioned above, yoga not only helps to build muscle, but it improves flexibility. Being flexible does not necessarily mean being able to do the splits or dropping down into binding postures. It refers to having a full range of mobility and elasticity in the fibers of the connective tissue that hold everything together (Ruiz 2007). There are many factors that impact how those tissues lengthen.

The first factor is *potential* for flexibility, how much give is actually available to the tissues. This comes from what is given through genes and the minerals one is supplied with at birth and throughout life. The structure, body, shape, and build play a part in our ability to lengthen the tissues. Along with the physical structure, biochemistry even plays a part. If one is not supplied with enough mineral content from his parents or does not build it up through nutrition in his lifetime, he is likely to have a smaller potential range for movement.

It is also important to keep in mind that some individuals move beyond the regular range of motion, making them *hyper*-mobile, which again is mostly related to body chemistry and

genetics. This hypermobility allows too much movement in the joint, making it unstable (Salvo 445-446). The tissues should be elastic, meaning flexible, but also able to bounce back. They should be *pliable*, able to adapt to where and how body stretches and changes position. Yoga practitioners should strive for balance in their practice, as mentioned earlier; maintaining tone and strength while improving range of motion. David Coulter, an anatomy specialist and author of *Anatomy of Hatha Yoga*, describes physical yoga practice as "a careful tending to your internal knitting", relating to the connective tissue that ties it all together (Ruiz 2007).

Yoga helps to build this evenness in the body, as mentioned above, but there is a method to achieving this quality flexibility. The first step is to listen to what the body is revealing as to how far is too far. The body has mechanisms to prevent stretching too far, but they can be overpowered if pushed incorrectly. There should be a feeling of a "pull" as the poses open up the tissues, but never a sharp pain, as this means the pose has gone too far.

Like any other process in the body there is a communication with the nervous system and several pieces working together to create a particular function. If a microscope were to zoom in on what is happening as the tissues are being lengthened, we would see receptors – spindles - in the belly of the muscle (Salvo 446). These act as a "seatbelt" for the muscle and prevent tearing from stretching beyond what the body is ready for. When there is an abrupt lengthening of the muscle, "muscle spindles detect the sudden motion and the nervous system responds by reflexively contracting the muscle" (Salvo 446). Then we have the Golgi Tendon Organs which reside between the muscle and the tendon. These are also used to prevent overstretching coming from a slower lengthening action in the muscle, but unlike the muscle spindles they do not encourage contraction of the muscle. The Golgi Tendon Organs, instead, communicate the

stretch and the nervous system responds by telling the muscle to relax instead of contract (Salvo 446). There are several intricate processes happening during the stretching postures.

These processes, while helpful to prevent injury, can also prevent the poses from going any deeper. The firing of the protection mechanisms stem from habitual movement patterns. The tissues may have the capacity to sink deeper into the stretch, but the neurological firing communicated through the nervous system is keeping them from doing so. Sometimes that seatbelt is just a little too tight, and needs to be loosened for better reach, or in the case of stretching: to break the plateau. This is where yoga truly opens the door for change that follows the yogi off the mat and into everyday life. A yogi can re-teach the natural nervous system responses to happen at a different time, deepen his or her practice, and change the mapping of the brain, which then allows the body to make strides in flexibility.

Vinyasa style yoga is generally the style required to make those changes in the nervous system responses (Ruiz 2007). However, if one can incorporate a technique called proprioceptive neuromuscular facilitation, his practice will deepen significantly. PNF is not generally taught in standard yoga classes (although some physical therapy based yoga or yogatherapy teachers may include it). If a yogi can apply this method on his own, it will open the door to a whole new dimension of the practice. An article on Yoga Journal describes the method best: “The PNF method manipulates the stretch reflex by having you contract a muscle while it's at near-maximum length. When you engage your hamstrings, you actually ease the pressure on your muscle spindles, and they send signals that it's safe for the muscle to release further” (Ruiz 2007). This is much more effective than static stretching – a stretch in which there is no muscle engagement. This type of stretch does not make lasting changes to the fascia as active-stretching techniques, like PNF, do (Warren 2019). There are some static stretches involved in yoga.

However, majority of the postures involve some form of muscle activation, while also pulling on the fibers, giving them lasting length.

Yoga Changes the Tissues

Yoga practice is one of the tools used to help unwind the connective tissues that get bound up throughout daily routines. To give some background, this connective tissue, the fascia, is what holds the human body together. Without it, the tissues would not be attached to the skeletal structure or held together in the beautiful anatomical human form. In one form or another, this connective tissue is intertwined through and around the muscles and organs. The really cool thing about it is that it is like a single wrapper around the body and it is all connected through its web-like structure from head to toe. This means that when one area of the tissue is bound up (from poor posture, repetitive movements, or even trauma), it can pull on other areas. In addition, because these bound up areas are those web-like fibers being stuck together, toxins (such as cellular waste or lymph the body is trying flush out) can be trapped in the area and blood flow will be restricted, leading to more troubles than just soreness and stiffness (Myers 2018).

The postures and flows involved in practicing yoga work this connective tissue in a way that is different than other movement practices. The fascia is mostly made of water, so when fibers are constricted, fluids and other necessary nutrients do not flow as easily. Yoga stretches the fascia in such a way that it reaches into the deep networks of the tissue and releases and even hydrates it, allowing those nutrients to flow freely to cells (Tom 2018).

Tom Myers is an expert on the subject with 40 years of integrative manual therapy experience. He shares that yoga can change patterns that are as deep rooted as childhood and even change DNA. Research is showing that these fibers actually reach down into the cell, so all

the movement yoga creates in the body loosens restricted tissues, so nutrients can make it into the cells (Myers 2018). In the same way, it allows cellular waste to flow out of the cell to be disposed of. These fibers actually reach all the way into the cell and into the nucleus, where genetic material is housed. Myers writes, “This means that when you’re doing yoga stretches, you are actually pulling on your cells’ DNA and changing how it expresses itself. Thus, the mechanical environment around your cells can alter the way your genes function” (Myers 2018). Yoga has the capacity to change a person on a genetic level!

Yoga makes us more flexible, which is very beneficial for modern humans, since we move very limitedly compared to what our planes of movement offer. It gives us a purpose and plan to move differently than what is available in exercise equipment and postures held through long days of work. Because of that, yoga helps us to make the tissues more flexible, hydrated, and adaptable, preventing injury. Flexibility is great, but having a tool at one’s disposal to make lasting, deep rooted changes in the ebb and flow of natural processes in the body is even better.

Yoga Changes the Mind

Yoga ideals rely heavily on mind and body connection. That being said, the fact that practicing on the mat can change the physical body and address fascial and postural patterns, means the mind and neural patterns are impacted as well. This is especially true because, as yoga points out, the mind and body are of the same system. Brain, body, and spirit work as one in bodily functions

It can physically be observed that yoga stretches and changes patterns in the fascial tissues, but what is happening from a psychological perspective? Remember, nothing is separate. The physical body, the nervous system, thoughts, emotions, and habitual patterns are all one. “David Williams, one of the first two Americans to practice Ashtanga Yoga, once observed that

the real yoga is what you can't see. He means that the real process of yoga unfolds beneath the obvious shapes that we contort our bodies into” (Clark 2016). Yoga is the bridge between mind and body. It establishes communication and awareness of all the processes that are already working in unison. Just as the yoga poses pull on fascial fibers, the energetic meridians are being worked at the same time (Clark 2016). Meridians are channels through which electrical energy flows at 0.05 Hertz (NITE 30). These meridians can house blockage of electricity, which can be caused by a variety of things; one of them being trauma or unprocessed emotions. As movement is created in the tissues and meridians, it can promote the release of blockages in these energetic pathways, stimulating an emotional response during the practice.

A study titled, “Mass Disasters and Mind Body Solutions”, illustrates how yoga can elicit an emotional reaction during practice. After the 1994 Genocide in Rwanda, victims were left traumatized from the inhumanities they suffered. Some of them were forced to lie down next to their family, friends, and fellow Rwandans to be executed. Some survived and are haunted by triggers that remind them of the horrors and pain that traumatized them in that moment. Corpse Pose, a pose involving lying flat on the back, could be one of those triggers for them (Gerbard, Patricia L, et al.). The brain recognizes this position from memory and the neural mapping has associated it with the trauma experienced. This same thing can happen to anyone that steps on to the mat no matter what degree of trauma he or she has suffered.

One of the ways emotions manifest in the tissues is through the nervous system. For example, a stimulus will elicit a stress response from the sympathetic nervous system. The tissues may react by tightening up in alignment with the fight-or-flight response. If this emotion stays long-term – unresolved - the muscles remain tensed up in this way. The tissues remain contracted to carry out fighting or running from the “threat”. The fascia then molds to that

posture (Smith 2014). The body will literally hold the stress in the affected muscles manifesting the “issues in the tissues”. This is where it all comes together. The tissues are restricted, the energetic flow is blocked, and the brain recognizes this activity and creates neural pathways. The tension becomes a pattern and the repetition of signals sent back and forth from the tissues and brain will root it deeper into mind and body.

Changing Patterns

Yoga will not only help the yogi consciously recognize these detrimental patterns, but reverse them, and facilitate new patterns that will serve him. It is important to first unwind the patterns that manifest in the tissues before addressing those in the brain mapping that solidify them (Smith 2014). The fascia that holds the tension is more willing to move if it is made more pliable with yogic stretching first. Then, the more “unseen” things like the nervous system and the messages it sends, will be able to adapt more readily; otherwise, the yogi is working against the bound up fascia (Smith 2014). As Tom Myers shares during an interview about mind-body transformation, “So you change the pattern of that fascia and thus you can get down to the chronic tension patterns lodged in the tissues. This can lead to a wonderful emotional unfolding over the long term.” (Smith 2014). Addressing habits in brain and fascia increases the level of understanding the yogis have of their own bodies and makes them more adaptable in many sectors of their lives.

Awareness in the Breath

There is such a detachment from the self, that most are not even aware of holding these patterns. Yoga is a listening tool to help discover, and fix them. Yogis are likely familiar with the term “awareness”. Yoga teachers often cue things like, “ground yourself”, “bring awareness into your body”, “release distractions and bring yourself to the present moment.” What is being

instructed is really to draw on your conscious experience in the moment; truly recognizing what is occurring from a neutral perspective, as an observer in the body. Without the awareness, there would be no way of identifying and addressing the patterns. While the physical yoga practice is advantageous, the full benefit is reached when the practitioner partakes in the meditative/cognitive aspects.

Deepak Chopra has given many talks and written books on consciousness and experience. In his book, *The Ultimate Happiness Prescription*, Chopra explains, “Being aware of your body unleashes intelligence, creativity, and power... Once you withdraw your awareness by being distracted... the flow of intelligence, creativity, and power is broken off. Most of the ‘natural’ decay and disease in old age is actually the unnatural outcome of decreased awareness, which is felt by every cell, and damages every cell” (Chopra 36). Chopra goes on to say that the best way to increase awareness is by breathing and honing in on any sensations being felt.

Awareness is a major focus (if not *the* focus) of the practice. The yoga breathing, referred to as pranayama, plays a huge role. In fact, the breath is so important to the traditional practice, that it is the entire fourth limb of the eight limbs of yoga philosophy. The breath is viewed as life; it is what gives energy. The conscious breathing makes the difference of practicing with a “quiet” mind vs a “distracted” mind, so the practitioner is perceptive to signals the body is sending.

There are several types of yogic breathing techniques, but they all include acknowledgement of the breath. Inhaling and exhaling is an automatic function of the autonomic nervous system. It does not require thought to execute, but when the thoughts are actively focused on the breath, they are not focused on distractions. It takes effort to use the slow, deepened breathing yoga calls for. Once this is practiced more and more, there is more habit

formation, more neural pathways made! The breath and awareness practiced on the mat will follow the yogi from the mat into everyday life.

Breathing for the Body

The breathing aspect of yoga can be practiced with the asanas – the poses – or as a stand-alone meditation. However, if it is practiced in unison with yoga movement, it ties in the body awareness and will, over time, change one’s regular breathing tendencies. As Beth Shaw discusses in her *Yogafit* teacher training program, the world today is a “forward-flexion” society made up of individuals that sit for several hours of the day (Shaw 25). After this pattern is repeated day after day, the tissues (think fascial patterns) begin to shorten in the front of the body as it slumps forward. This makes the “at rest” breath very shallow because the diaphragm has a hard time expanding to full capacity. The lungs are most abundant with blood vessels in the bottom lobes, so short, shallow breaths do not utilize this area for oxygen intake (Shaw). This is detrimental to overall wellbeing because the full potential of oxygen is not being reached; and at the same time, it limits the amount of toxins being exhaled (Shaw p.25). Practice the breath and in turn, all body systems receive its vitality. In particular, the breath helps to balance the lymphatic, circulatory, and nervous systems.

Research from the International Journal of Yoga Therapy was done involving a breathing exercise called, Sukha Pranayama, a Sanskrit term for a technique involving six breaths in a minute: inhaling, holding, exhaling, holding again, all for equal amounts of time. This study was conducted on individuals with hypertension who practiced this Sukha Pranayama for five minutes. After five minutes, results showed that the patients’ heart rates and blood pressure had been lowered and strain on the heart was reduced (Bhavanani and Sanjay 2011). In conjunction, the sympathetic nervous system was decreased and parasympathetic increased. Here, this means

stress response goes down and relaxed state goes up. What is especially interesting is that this is recognized as a balancing practice. Even though this practice lowered sympathetic activity and blood pressure, it did not drop any further after a normal rate was achieved (Bhavanani and Sanjay 2011). The study goes on to explain that adding rosary prayer or yoga mantras have shown “beneficial effects in restoring autonomic cardiovascular rhythms” (Bhavanani and Sanjay 2011).

As mentioned above, the lymphatic system is positively impacted by conscious deep breathing as well. When the body has not been as mobile as it should be, the tissues, the lymph, and the circulation all slow down. This is problematic because stagnant lymph left unaddressed can lead to other health problems as the body is not flushing waste and toxins as it should. Move the lymph and, at the same time, boost the immune system. This movement is encouraged by the push and pull of the inhale and exhale. This action is similar to that of the circulatory system. Energy is created inside the abdominal cavity by the expanding and receding of the diaphragm. It pushes down on the organs, giving them a massage, moving lymph through the deeper channels in both the abdomen and the legs (Wallace 2019). Respiration and physical movement /manipulations are the best ways to move stagnant lymph. Yoga, with its conscious breath, twists, and flows, involves these methods.

Breathing for the Mind

Yoga breathing is found to be quite a powerful influence over mental health imbalances. In general, deep breathing is known to be relaxing and helpful to lower blood pressure in stressful situations, but it goes much further than relaxation. As mentioned before, this breath is

the awareness and brings the yogi to the present moment. Studies show it is effective in preventing the development of Post-Traumatic Stress Disorder in patients who experienced a trauma. This involves the victim being “haunted” in a sense, because he is reliving the emotions and memories of the trauma. If yoga brings one’s awareness to the present moment, the mind cannot, at the same time, give attention to the trauma. Studies have shown that yoga has helped prevent the development of severe PTSD after disasters and traumatic experiences (Gerbard, Patricia L, et al.)

Graceful Aging with Yoga

Often when there is an image of a person practicing yoga, they appear to be youthful, and healthy. This is in part because of advertising efforts encouraging consumers to purchase memberships and workouts, but there seems to be some truth in the connection. Yoga practice takes the mind and body to places that reduce stress levels and help to lessen and even reverse some of the effects of aging. The type of aging discussed here is not that of just diminishing wrinkles or appearing younger. As discussed above, yoga has the capacity to change the human body down to the cell. The aging talked about in studies is *cellular aging*, which relates to cell division, telomere length, and how long the cell itself lives. The telomere’s role is protecting the DNA. When the telomeres are not under a significant amount of stress, they maintain their length for a longer period of time throughout cell divisions, keeping the genetic material protected; and thus, continuing to function properly (“What Is a Telomere?”). Cellular aging has been found to be linked to diseases like diabetes, heart disease, and even infertility (Tolahunase, Madhuri, et al.). Utilizing methods that aid in slowing the rate of cell death would impact the major diseases that plague society.

A study from the All India Institute of Medical Sciences has shown yoga to be effective in slowing down cellular aging. Researchers measured markers like telomere length, telomerase activity (the enzyme that helps prevent telomere decay), cortisol levels, oxidative stress, and more (Tolahunase, Madhuri, et al.). The study follows individuals who practiced yoga for ninety minutes daily for a total of twelve weeks including both class and home-based sessions.

The study concluded that yoga made positive changes in many of the biomarkers being tracked: increased telomere length, less oxidative stress, lowered cortisol levels, etc. There were additional benefits recorded like reduced inflammation, but the most interesting was what it does to the brain mapping. It was found to increase neuroplasticity - the ability of the brain to create new pathways and better brain mapping, which is great for maintaining and improving cognitive functions (Tolahunase, Madhuri, et al.). All of these keep the body in balance and safe from the grips of chronic disease. Oxidative stress and DNA malfunction are caused by many factors like nutritional deficiencies, emotional stressors, environmental poisons, etc. This practice is helping fight against these challenges.

As mentioned earlier, yoga not only directly impacts health. It also provides community and encouragement for those practicing, including encouragement of a healthy lifestyle and diet – both also leading to less cellular stress.

The yoga practice from the study above did not just slow the cellular aging, it reversed it! The researchers concluded their discussion with, “Making Yoga and Meditation an integral part of our lifestyle may hold the key to delay aging or aging gracefully, prevent onset of multifactorial complex lifestyle diseases, promote mental, physical, and reproductive health, and prolong youthful healthy life” (Tolahunase, Madhuri, et al.) Yoga, a path to blissful, cellular longevity!

Cultural Mind Body Practices

Yoga has become increasingly popular in the United States as there is a basic knowledge that it brings health benefits. Although, it is interesting to take a look at the health of people in other cultures where mind-body practices are a part of everyday routine. There have been studies that show areas in the world of longevity, where populations tend to live longer and suffer fewer health conditions. While not all of them practice “yoga”, they integrate some sort of meditative quality to their life and use movement all through the day instead of carving out time for exercise. It brings forth the chicken and the egg kind of question, is it the mind-body practice that promotes the qualities needed for healthy living, or is it a culture and mindset focused on health that brings meditation?

Yoga Meditation originated in India with references as old as 5000 BC, where it began only as a meditative practice. The physical aspect of the practice came later. Other branches of meditation have been referenced all through history, most in relation to religious or spiritual practices. Whether it is an act of prayer or a step toward enlightenment, meditation has been documented in Hinduism, Buddhism, Islam, Judaism, Christianity, Native American spirituality, and then, as it grew in modern America, medical and scientific research (Mead). Even thousands of years in the past, there was the search for something greater, the same search that still exists in society today.

One group who seems to have it all figured out is the Hunza. This is a community in North Pakistan with many lifestyle practices that differ from norms of society. They are well known for living up to 100 years of age and beyond. One of their disciplines include regular practice of yoga meditation and breathing techniques to prevent stress (“Most People in this Mountainous Valley”). They also participate in jobs and work in the community, keeping them

active. Other groups known for their quality longevity have been studied and named “Blue Zones” by Gianni Pes and Michel Poulain and trademarked by Dan Buettner (“History of Blue Zones”) These Blue Zone communities, like Hunza, have built on traditions and habits for optimal health. They, too, have a focus on community and place a high value on health, relationships, and quality food. In particular, their days involve a lot of movement as they are completing tasks and work. It is the top of Buettner’s pyramid for longevity: Natural Movement. Buettner explains during his Ted Talk that these folks have naturally occurring physical labor weaved into their day today: “they set up their lives so that they’re constantly nudged into physical activity.”

Here is where it ties in to yoga. The average American does not move throughout the day, but keeps a rather sedentary life and (some) plan thirty to ninety minutes of exercise. This becomes a habit, and limited movement is deep rooted into the brain mapping and connective tissue. As mentioned previously, neuroscience teaches those neural pathways are re-teachable. Lara Heimann, a Physical Therapist and founder of LYT Yoga methodology, has spent hours teaching her in-person and online yoga community just that. If one creates a new habit of daily yoga practice first thing in the morning, there is a communication between mind and body, “we are moving today”. Stretching and exercising first thing, reinforces good posture for the work day and encourages one to take time for stretching and movement multiple times in the day. If better habits and everyday routines are the key to longevity, perhaps yoga is the gateway to changing those habits.

Who Should Be Practicing?

Yoga has proven to be quite a versatile tool thus far, giving the yogi opportunity for benefits expanding from the physical to the energetic to the emotional. From the information

given so far, it would seem that anyone and everyone should implement yoga practice into daily life. While this may be true, there are specific groups of people who would find more benefit in personalizing the practice to fit their body chemistries.

Humans are made very differently from one another; born with different genetic predispositions, weakness tendencies, nervous system dominances, blood types, metabolic types, the list goes on. The blood type is much more than a letter. It plays a huge role in body chemistry, optimal nutrition, personalities, and effective exercise regimes for each individual. Dr. Peter J D'Adamo studied and addressed this with his book *Eat Right for Your Type*. There, he educates his readers on optimal health and immunity based on not just eating for your blood type, but living for one's type – changing unhealthy habits and patterns that are sub-optimal.

Dr. D'Adamo explains, blood type O's do well to combat stress with heat-building aerobic activities that raise the heart rate (D'Adamo 127). Because they need vigorous exercise, such as weight training, jogging, or martial arts, they are at higher risk for injury if not properly warmed up or stretched (D'Adamo). Adding short yoga flows before and after an O's exercise routine would be valuable, but yoga would not be his primary source of exercise. If the O Type favored yoga, he would need to practice the more aerobic yoga styles such as Vinyasa or Ashtanga. Again, the O-type would do well to add workouts that are more vigorous than yoga.

A Blood Types fight stress by adopting meditations and quieting exercises such as golf, yoga, hiking, walking, Tai Chi, etc (D'Adamo 166-167). D'Adamo shares that for A's, "the key is your mental engagement in your physical activity." Yoga is found to be of extreme help to A Blood Types in releasing their stress and many A patients of Dr. D'Adamo do not leave their home until they have had their morning yoga routine (D'Adamo 167).

B Blood Types, similarly to O, need vigorous exercises, but like A Types, they need quiet time to unwind. It is recommended they primarily use high-intensity, non-competitive exercises complemented by yoga or relaxation techniques (D'Adamo 200-201). Hatha Yoga, slow flow, with focus on breath and flow is most favorable.

Last is the AB Type. AB Types are not adept at handling stress and therefore, need to combat it with relaxation-movement techniques, where again yoga is found to be the most balancing (D'Adamo 237). This is another group of D'Adamo's patients who generally do not leave the house until they have had their practice in.

As the reader has learned already, stress manifests in the body in many negative ways, causing imbalance in the brain, tissues and nervous system. Personalizing the yoga practice to match blood type is important, but there is another aspect to take into account: nervous system dominance and imbalance. Everyone lies somewhere on a spectrum of nervous system dominance from Sympathetic – high-strung, organized, logical, routine - to Parasympathetic – artistic, unorganized, emotional, relaxed. Especially for the sympathetic dominant, yoga's deep breathing and unwinding movements will help balance out the stressful, fight-or-flight energy carried, suppressing sympathetic and activating parasympathetic. Parasympathetic dominant yogis have nothing to fear as they will not be pushed further into the rest-and-digest state. Yoga brings balance.

When the question is asked who can practice yoga, the answer is everyone. Even if one believes he is unable to practice yoga due to physical injury, emotional trauma, or just plain self-consciousness, it can be done. Yoga is for every body and every mind. For those with difficulty getting up and down, there is chair yoga. For the self-conscious or those who cannot afford a membership to a studio, yoga is accessible at home via streaming or just from one's own ability

to move and breath. For the trauma victims, yoga has been integrated into therapeutic techniques. Yoga is for every human.

Conclusion

Yoga does not necessarily equate to putting on high-end stretchy pants, eating vegan, or buying a \$200 biodegradable mat. Yoga is the breath, the awareness, the connections in mind and body. Yoga is what the yogi makes it – even if that means practicing the breath in a busy grocery store or taking a stretch break in the middle of the work day. If there is breath, there is the ability to practice.

“The current human disconnection from the natural world starts with our disconnection from our own bodies, which we as a culture inherited – to a degree that most of us generally don’t quite acknowledge the extent of our inability to feel our own bodies,” a quote from Simon Thakur sums up how yoga can create change. This practice is an awakening, making people aware of their most valuable possession: the body, the vessel housing the soul. It is helping fight the battle against the modern health challenges, which are so prevalent that the population really cannot afford to *not* fight them. We have yoga, a tool, or better yet, a weapon at our disposal to create change; to aid in the correction of the stresses and imbalances afflicting our bodies and maybe, even the world around us.

It is not the cure all. But perhaps yoga is a first step in the realization that society has taken some wrong turns. The way we live, eat, sleep, and breathe is chaotic, but this mind-body experience helps us to own that and in response, create peace that flows into every facet of our lives. It empowers us to seek balance.

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