

# **STRESS MANAGEMENT AND MIND/BODY MEDICINE**

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*"If you give a person a fish they will have food for a day.  
If you teach a person to fish they will have food every day."*

- an old Chinese proverb -

### **AN OVERVIEW OF STRESS AND THE STRESS RESPONSE**

The above proverb embodies the essence of stress management. The various stress reduction techniques described at the end of this chapter can compliment any current traditional or non-traditional health care intervention you are currently involved in. Rather than giving you an experience of relaxation, the following stress management techniques will provide you with a set of tools that you can always draw upon to reduce your stress level. First we will review what we mean by stress, as well as the evolving field of mind/body medicine.

It appears that stress can contribute significantly to various disease states in many different ways. *Stress* is a word that we all intuitively understand, but when asked to define it, a clear definition often eludes us. Webster's Seventh New Collegiate Dictionary defines stress as: "a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation; a state resulting from a stress, especially one of bodily or mental tension resulting from factors that tend to alter an existent equilibrium." Steven Locke, M.D., co-author of The Healer Within provides a clearer definition of the essence of stress with his definition: "perception of individuals that their life circumstances have exceeded their capacity to cope."

One of the first pioneers in the exploration of the psychoneurophysiology of stress was the Chicago psychiatrist Franz Alexander, M.D. who in 1939 made the then controversial statement: "Many chronic disturbances are not caused by external, mechanical, chemical factors or by microorganisms, but by the continuous functional stress arising during the everyday life of the organism in its struggle for existence." Dr. Alexander's ideas developed into the medical specialty of psychosomatic medicine, which was to pave the way for our ever evolving understanding of *mind-body medicine*. During the 1930's and 40's Dr. Walter Cannon, a physiologist at Harvard Medical School mapped out the neuronal pathway from the hypothalamus (which is a part of the brain about the size of the tip of your thumb) to the adrenal medulla (the middle part of small gland that sits on top of the kidney and when activated secretes epinephrine and norepinephrine - which are also known as adrenalin and noradrenalin). This tedious research demonstrated a direct connection from the brain to the gland that secretes these chemicals into the bloodstream. This was a major finding because epinephrine and norepinephrine together produce many physiological changes including: increasing the heart rate, blood pressure, and respiratory rate; increasing the blood flow to muscles three to four fold; causing the blood to clot quicker; triggering the release of stored fat into the blood stream (which increases the blood cholesterol level - this in turn increases the amount of cholesterol available to attach to plaques in the arteries throughout the body, including the arteries of the heart); and decreasing immune functioning. Hence, this *brain-body* connection provided a mechanism for stress to act on the body through neural pathways from the brain.

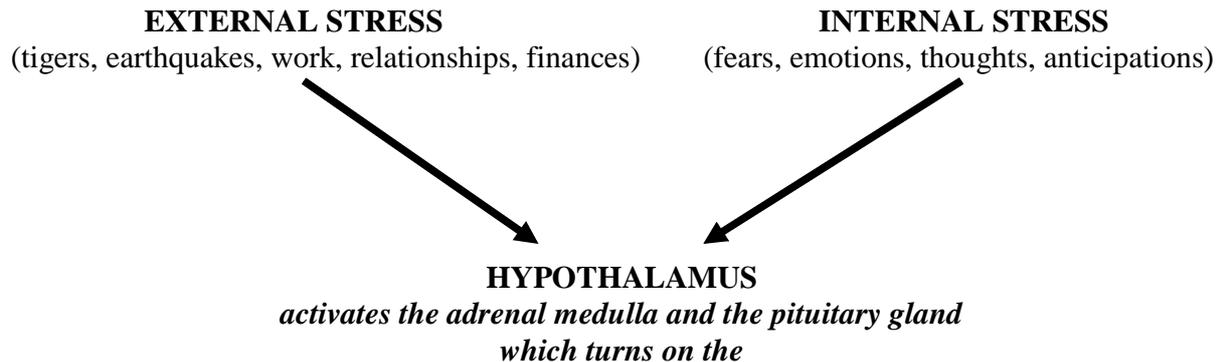
Another pathway for the brain to induce an aroused physiological state like that which is observed when an individual is under stress was delineated by Hans Selye, an organic chemist at McGill University in Montreal. He defined the hormonal contribution to the stress response. When the brain perceives any kind of stress (physical, emotional, intellectual, or psychological), it activates the hypothalamus. The hypothalamus then activates the adrenal medulla through direct neuronal connections, which results in the release of epinephrine and norepinephrine as

described above. It also activates a small gland in the brain, called the pituitary gland, which is close to the hypothalamus. The pituitary gland then secretes a variety of "stress hormones" which enter the blood stream directly and further amplify the stress response.

This activation of the hypothalamus when a person perceives stress, with its subsequent cascade of neurochemicals and hormones released into the blood stream creating a highly activated physiological state has come to be known as the ***Fight or Flight Response***. The following diagram shows this response and how chronic activation of it can lead to or exacerbate various common disease states. As our brain was evolving three to five million years ago, the fight of flight response was quite adaptive. It would maximize an individual's chances of survival from some physically threatening aggressor (for example lions, bears or a club bearing barbarian) by creating a hyperaroused physiological state; diverting blood to all the major muscle groups, and increasing the delivery of oxygen and an energy supply to those muscles through an increased heart rate, blood pressure, respiratory rate and other changes that have been described above. As human civilization has gradually conquered all of its *external physical* threats, the brain continues to activate the fight of flight response when it perceives any type of stress; physical, emotional, intellectual, or psychological. The problem arises when the stressor is emotional, intellectual, or psychological because the body is all geared up to fight or flight in a physical manner, but most often there is no opportunity to act in a physical way. All of the physiological changes still occur, and if the stress is chronic, this state of hyperarousal can continue chronically with resultant medical complications.

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## THE STRESS RESPONSE



### **FIGHT OR FLIGHT RESPONSE**

increased heart rate, increased blood pressure, increased respiratory rate, decreased blood flow to gastrointestinal tract, increased muscle tension, release of sugars and fats into the blood stream, decreased immune functioning (decreases bodies ability to fight infection and monitor body for precancerous cells), increased sweating, activation of the thyroid and adrenal glands, hyperarousal.

### **CHRONIC ACTIVATION LEADS TO DIS-EASE**

cardiac disease, hypercholesterolemia, hypertension, sleep disturbances, muscle aches, headaches, gastritis, irritability, fatigue, anxiety, depression, panic attacks, restlessness, irritable bowel, increased susceptibility to infections, poor concentration, and possibly increased risk of cancer

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## MIND/BODY RESEARCH AND MEDITATION AS ANTI-STRESS MEDICINE

In the past several decades there have been major advances in medical research demonstrating a powerful interdependence between "mind" and "body". A research literature of over 1200 publications has evolved demonstrating the effectiveness of **meditation** in promoting physical and psychological health (The Physical and Psychological Effects Of Meditation; Michael Murphy and Steven Donovan; 1988; Esalen Institute Study Of Exceptional Functioning; San Rafael, CA.). Physiological changes resulting from the practice of meditation include: decreased blood pressure, heart rate, oxygen consumption, carbon dioxide elimination, respiratory rate, muscle tension, blood lactate levels, cholesterol levels ("A Relaxation Technique In The Management Of Hypercholesterolemia"; Cooper and Aygen; Journal Of Human Stress; pgs. 24-27; December 1979.), and serum cortisol levels; EEG hemispheric synchronization and an increase in alpha rhythms (these are the rhythms associated with deep relaxation and physical and psychological rejuvenation); increased skin resistance; and improvement in perceptual skills.

Another study of medical utilization among meditators compared the medical utilization of 2000 meditators with 600,000 members of the same insurance carrier over a 5 year period. There was a significant decrease in the number of in-patient hospital days, out-patient medical visits, and hospital admissions for a wide variety of diagnoses (including tumors, heart disease, and mental illness) for the meditators as compared to the non-meditators. The rate of hospital admissions for childbirth was identical in both groups ("Medical Care Utilization And The Transcendental Meditation Program"; Orme-Johnson, David; Psychosomatic Medicine; 49: 493-507; 1987.). An interesting study with the elderly demonstrated an increased 3 year survival of residents of homes for the elderly in a group that was taught and practiced a meditation technique, compared with a no treatment control group ("Transcendental Meditation, Mindfulness, And Longevity:

An Experimental Study With The Elderly"; Langer, et. al.; Journal Of Personality And Social Psychology; Vol. 57, No. 6; pgs. 950-964; 1989).

In the early 1970's Dr. Herbert Benson, a cardiologist at Harvard Medical School, introduced the "relaxation response" as an effective anti-stress intervention. He had worked with practitioners of Transcendental Meditation (TM) who had effectively controlled their hypertension (Benson, H. and Wallace, R. Decreased Blood Pressure In Hypertensive Subjects Who Practiced Meditation. Circulation 46: (Suppl. 11), I, 130, 1972.), some being able to discontinue medication, through the practice of TM. TM is a form of **concentration meditation** which involves placing the mind's attention on a single object, like the breath, and returning to that object whenever the mind wanders (which initially occurs quite frequently).

In 1979 Dr. Jon Kabat-Zinn started the first hospital based **mindfulness meditation** based Stress Reduction and Relaxation Program in the United States. Mindfulness meditation is inherently different from other forms of meditation practice. Specifically, it invites the meditator to develop a calm, objective, non-judgmental, neutral attitude of sustained alert attention. Initially there are specific time periods devoted to developing **mindfulness**, but ultimately the individual can bring varying degrees of mindfulness into each moment of their life. Often through mindfulness one begins to recognize the root causes of stress, rather than simply having an antidote to reverse the stress that is already there.

Dr. Kabat-Zinn's program has become internationally known, and to date (June, 1995) there have been over 7,000 patients who have attended his program which is based at the University of Massachusetts Medical Center in Worcester. Dr. Kabat-Zinn has authored numerous scientific papers demonstrating the efficacy of his program for a wide range of medical and psychological conditions, he has authored two books (Kabat-Zinn, Jon; Wherever You Go There You Are:

Mindfulness Meditation In Everyday Life; Hyperion; New York; 1994; and Kabat-Zinn, Ph.D., Jon; Full Catastrophe Living: Using The Wisdom Of Your Body And Mind To Face Stress, Pain and Illness; Delacorte Press; New York; 1990.), and his program was featured in the 1993 Bill Moyers public television program Healing and The Mind.

What follows are eight techniques which can be used to reverse the effects of stress. The common feature of all of them is to develop sustained attention of the mind, and thereby allow all thoughts, judgments, and opinions to simply pass through the mind's awareness much like clouds passing through the sky on a windy day. It is OK to see the passing mind-object, but simply observe it with a non-judgmental passive stance and allow it to continue along its way while you bring your attention back to the instructions of whatever technique that you are using. Another way to understand this process is to see the intruding mind-object as a momentary event that has as much power as your awareness chooses to give it. Rather than being **you**, this mind object is what your awareness is experiencing in that particular moment. The quality of mind that develops can be called *tranquil but alert*.

### **STRESS MANAGEMENT TECHNIQUES**

What follows are a variety of stress reduction techniques that are commonly used in various stress reduction programs. The eight stress reduction techniques described are: a Body Scan, Breathing Meditation, Mindfulness Meditation, Self-Hypnosis/Creative Visualization, Hatha Yoga, Progressive Muscle Relaxation, Exercise, and Music. Each of these will be explained in detail. There are some general guidelines to follow to maximize your stress reduction experience and minimize your frustration, which is commonly felt by all beginners when practicing stress reduction.

**GENERAL GUIDELINES:**

- 1) Find a time that you will not be interrupted for at least 30 minutes.
- 2) Wear loose comfortable clothing; with low light, and preferably low background noise.
- 3) Position yourself in a comfortable spot, preferably with your entire body supported.
- 4) Ideally, choose a time of day that you are most awake and alert; the idea is *not* to fall asleep.
- 5) Practicing the techniques daily will produce the best results.
- 6) It is common initially for individuals to fall asleep, so be sure your head is supported.
- 7) Simply follow the directions as described - find your own breathing rhythm. You may follow the instructions on your own; make an audiocassette yourself of the particular technique that you find most useful; or send for a copy of a pre-made audiocassette.
- 8) ***BE KIND TO YOURSELF !!*** It is very common for the mind's attention to wander a lot during early stages of practice. When you realize that the mind has wandered, simply return to the instructions for the technique that you are using, letting go of whatever distraction pulled your attention away.
- 9) Individuals tend to like one technique more than the others. Begin by practicing several different techniques until you find the one that you are most comfortable with. Over time you may want to try several different techniques as your stress reduction capacity grows.
- 10) Each time you practice one of the techniques your experience will be different. A good general rule is to begin each session with no expectations and simply work with the state of your mind's attention at that time.
- 11) For many individuals, they are quite surprised and often discouraged at how easily their mind's attention wanders ..... ***remember, Rome wasn't built in a day ..... PATIENCE AND PERSEVERENCE ARE YOUR BEST COMPANIONS.***

12) As your attention strengthens and distractions lessen you will often notice increasing calmness and relaxation, as well as presence of sustained attention.

### **THE BODY SCAN**

This technique will guide your attention through your body, beginning with the right foot and moving up through the body to your head and then the entire body. Throughout the exercise you should direct your breath to each body part, directing calmness and relaxation with each in-breath, and breathing out any stress, muscle tension or distracting thoughts. You may notice feelings of lightness, warmth, or numbness, which are common. . These are signs for some people that their body has become deeply relaxed. Other experiences that can occur with any of the techniques include: feeling as though your body is floating (which indicates that your muscles are so relaxed that they become fluid like, and your bones are no longer held firmly in place by tense muscles); feeling that your mind is leaving your body (also a result of deep relaxation - this state is sometimes called depersonalization); and the recalling of past personal events from anytime in your life that may have been suppressed or repressed (discussed in more detail in the section on Mindfulness Meditation). As you work with this technique, you will become better able to quickly induce a state of relaxation in the body as well as the mind. You should plan to spend 30 minutes practicing the Body Scan. This amount of time will allow the beneficial effects of relaxation to provide the necessary physiological changes for the anti-stress effect.

Begin by placing yourself in a supported, comfortable position. If you are comfortable doing so, slowly allow your eyes to close. Place your attention on your breathing, and feel your breath as it enters and leaves your body. Once you feel grounded in your breath, direct the next breath down to the big toe of your right foot, sending calmness and relaxation to the big toe, and breathing out any tension, stress, or distracting thoughts. Do this for several minutes. You may also spend

time feeling any sensations that may be present at the big toe, for example the texture of clothing, the toe's position in space, any sensations in the toe itself. After several minutes, expand your mind's attention to include all of your right foot and follow the same procedure. After several minutes at the right foot continue with the body scan in the following order, following the same instructions as with the big toe: the right lower leg from the knee to the foot ..... the right upper leg from the hip to the knee ..... the entire right leg from the hip to the toes ..... the left big toe ..... the left foot ..... the left lower leg from the knee to the foot ..... the left upper leg from the hip to the knee ..... the entire left leg from the hip to the toes ..... the pelvic region including the buttocks ..... the abdomen - feeling any movement there as you breath ..... the chest wall - feeling it expand and relax with each in-breath and out-breath ..... the back from the bottom of the neck to the buttocks ..... both of the shoulders ..... the right hand .....the entire right arm ..... the left hand ..... the entire left arm ..... the neck ..... the face, including the mouth, tongue, nose, cheeks, eyes, forehead, ears, and scalp ..... the entire head ..... the entire body, from the top of the head to the tips of the toes ..... feeling the breath move through the entire body ..... when you feel ready slowly open your eyes, and bring the relaxation you've attained into the rest of your day.

### **BREATHING MEDITATION**

This technique helps to develop one pointed awareness, otherwise known as attention. Although we usually feel that we are always paying attention, individuals are usually quite surprised at how easily their attention drifts off to something "more interesting" than the breath. The instructions for this technique are simply to direct your attention to the in-breath and out-breath; *not* controlling the breath, but rather simply observing it like you might observe some object in nature, like a cloud passing by or a bird in the sky. When the mind's attention wanders, simply let the distraction go with the next out-breath and redirect your attention to the breath ..... *with*

***no judgment regarding the ease of distraction.*** Beware of the temptation to keep looking at your watch or clock. In initial stages of practice it may be helpful to set a watch alarm for the desired time ..... when the temptation to look at the time presents itself, simply observe this as another thought passing by and return your attention to the breath. The advantage to this technique is its simplicity, which at the same time makes it the most challenging. It sounds rather simple .....until you try it. It is truly a learning experience to watch, ***non-judgmentally***, how clever the thinking mind is at distracting your attention from such a simple task as watching your breath.

It often makes sense to start by simply watching the breath for 5 or 10 minutes, and gradually increasing the time up to 30 to 45 minutes. Initially you can combine this technique with one of the others to practice your full 30 minutes each day, and as you feel comfortable with the Breathing Meditation, you can gradually increase your time practicing it.

Also, as your mind/body begins to associate the breath with relaxation, you can direct your attention to the breath for just a few seconds anytime and anyplace to access that place inside yourself that is always calm, relaxed, and fully present with whatever happens.

Following is a scenario that demonstrates what often happens during the early stages of Breathing Meditation: You begin in a relaxed, comfortable position. Allow your eyes to gently close and direct your attention to the in-breath and out-breath, experiencing the breath as it enters and leaves your body with its own rhythm, simply noting "in-breath and out-breath". Thoughts, feelings, emotions, memories, sounds, smells, bodily sensations, and anything else you can imagine will begin to intrude into your focus on the breath, often successfully distracting the mind's attention away from the breath. When, ***not if***, this occurs, as soon as you realize that you have left the breath let the distraction leave with the next outbreath, ***without judgment***, and return to watching the breath. For example, you are watching your breath and you hear a car

drive by outside; your mind grabs onto this distraction and begins the following dialogue with itself ..... " car ..... my car ..... I need to get an oil change soon ..... do I have enough money to do that this week? ..... oh yeah, Tom owes me \$50 that I lent him one month ago ..... boy am I angry at him, he said he would pay me back in a week ..... but we are such good friends he must have just forgotten ..... its nice to have such a good friend ..... that television show had that unfortunate person in it who trusted his friend, while all along this friend was having an affair with his wife ..... wait a minute ..... I'm supposed to be watching my breath ..... OK ..... let the thought go ..... in-breath ..... out-breath ..... in-breath ..... out-breath ..... in-breath ..... out-breath ..... in-breath ..... out-breath ..... (a dog barks outside) ..... dog ..... my dog ..... I have to get some dog food, we are almost out of it ..... grocery store ..... I forgot to make a list of what we need ..... let's see ..... in the refrigerator we need juice, fruit, salmon, potatoes, carrots, kale ..... do I have enough money in my checkbook to buy all that stuff ..... I forgot to balance my checkbook last month ..... I hate balancing my checkbook ..... wouldn't it be nice to win the lottery ..... no more worries about money ..... wait a minute ..... I'm supposed to be watching my breath ..... boy, how my mind can wander ..... OK ..... let the mind be clear ..... in-breath ..... out-breath ..... in-breath ..... out-breath " ..... and so the process goes.

During the early stages of Breathing Meditation you will likely spend more time away from your breath than with it. This is what commonly happens. The challenge is not to get frustrated, but to continue to practice the Breathing Meditation. Over time you will find it easier and easier to return to the breath and stay with the breath - and reap the benefits of calmness and relaxation that accompany practicing this technique.

### **MINDFULNESS MEDITATION**

The Breathing Meditation is a natural lead in to Mindfulness Meditation. With Mindfulness practice, it is usually helpful to begin with 5 or 10 minutes of Breathing Meditation to develop the qualities of mind of calmness and attention. Once grounded in these qualities, the instructions are to develop an attentional stance called free attention or choiceless awareness (Krishnamurti, J. The Awakening Of Intelligence Avon Books, NY, NY, 1973.). Mindfulness meditation involves developing the capacity to observe non-judgmentally whatever mind object presents itself. Common mind objects include: thoughts, feelings, sensations, emotions, and memories; some of these which are pleasant, some of which are unpleasant, and some of which are neutral.

The challenge of Mindfulness is to observe all the different parts of ourselves with an open mind, without constant self-justification or projecting onto others the dark side of ourself, with the ultimate goal of learning who we really are, and then make choices as to who we want to become. Mindfulness holds the potential for us to see deeply engrained patterns of belief and behavior which often have their roots in our childhood years when we innocently internalized our family and societal cultures. Some of these beliefs and behaviors may be the very source of some of our deepest stressors, and shining the light of awareness onto these patterns holds the possibility of breaking free of them, and with them the accompanying stress.

Another way of viewing mindfulness is that we leave the common Western mindset of *becoming*, and begin to allow ourselves the experience of *being*. We enter into the here and now with our full presence, much like the old saying: *You've got to stop and smell the roses*. Instead of existing in the "object mode" of relating to the environment around us we enter the "receptive mode", whereby we are part of the environment with no barrier of mind separating us.

Using your breath as the anchor to the present moment, when you feel grounded and fully present, the instructions are to observe without judgment the various distractions that arise that

you were instructed to let go of and return to the breath in the Breathing Meditation technique. Ideally, these distractions are used to begin to understand who you are and what fills your mind. Initially what is commonly observed is the mind's chatter about recent events or things that you feel you should be doing rather than meditating. As the mind quiets down from this superficial chatter, deeper patterns of your mind will present themselves for neutral observation and inquiry. A common experience of the practitioner of Mindfulness Meditation is remembering unconscious material from the past that had previously been suppressed or repressed. Fond memories or emotions from our childhood may be relived with all of their original clarity and intensity. For some individuals the unveiling of traumatic memories or emotions may actually create quite painful emotional states and turbulence of mind, in rare cases requiring psychiatric intervention. (Miller J: *The Unveiling of Traumatic Memories and Emotions Through Mindfulness and Concentration Meditation: Clinical Implications and Three Case Reports*; *The Journal of Transpersonal Psychology*; Vol. 25; No. 2; 1993). For this reason anyone beginning to practice any stress management technique should be informed of this rare but possible risk. If you have recently experienced a significant loss, or severe emotional turmoil, Mindfulness Meditation should probably be saved for a time when you are feeling more centered and grounded.

The potential power of Mindfulness practice is that you can begin to understand the process of how your mind works rather than getting lost in the content. One tool that is very helpful in this regard is called *noting*. If you are practicing Mindfulness and you find yourself thinking over and over again about some injustice that was done to you, and feel anger getting stronger and stronger, simply note "angry mind", and begin to explore what the actual bodily sensations are that accompany this mind state. How do the muscles feel? What is happening to your heart rate and breathing? Is this a mind state that you enjoy being in? So, instead of getting lost in the circle of thought that propagates the angry mind, you begin to understand what anger really is, and what situations bring up anger for you (they are usually different for everybody depending on

past experience). If you find yourself thinking about some pleasing event and feel content and happy, simply note "content mind" or "happy mind". Explore the mind and body when it is in this state. How do the muscles feel? What is happening to your heart rate and breathing? Is this a mind state that you enjoy being in? Do you want it to last forever? If so note "wanting mind", and deepen your understanding that even though we want blissful mind states to last forever, that they will not. A guaranteed law of the universe is change, and this applies to all mind states as well. So, we are not any one mind state but rather a series of ever changing mind states. When you realize that the blissfulness will not last forever and feel disappointed, simply note "disappointed mind" , and explore disappointment.

If you find yourself getting caught up in thinking rather than noting or experiencing, simply return to your breath and follow the in-breath and out-breath until you once again feel anchored in the present moment. Then return to the instructions for free attention/choiceless awareness using noting if you find this useful. The power of Mindfulness is that as you practice it more and more, you begin to understand yourself in a deeper way, and begin to have choices about what to do in different circumstances. Put another way, you can begin to respond rather than react, and begin to disentangle yourself from automatic thoughts and behaviors that you may not have been aware of previously. This understanding opens the door to positive change, and with it decreased stress.

### **SELF-HYPNOSIS/CREATIVE VISUALIZATION**

People often have misconceptions about what hypnosis is. Fundamentally, it is using directed attention to alter one's state of consciousness. One application of this is to use Self-Hypnosis to develop states of calmness and relaxation. Creative Visualization is a technique whereby the individual uses their imagination to create an inner experience that also can alter one's

consciousness to create an altered state as well. Combining these two techniques can provide a powerful tool to quickly enter into an altered state where the effects of stress can be reversed, and calmness and tranquility can replace what was an overstimulated mind.

It is often useful to begin with a brief Body Scan, lasting approximately five minutes; i.e. a shortened version of the Body Scan described previously in this chapter. This will help the body to relax and be more receptive to the Self-Hypnotic and Creative Visualization exercises. Once the body is relaxed, close your eyes if they are not already closed, and continue with deep, relaxed breathing. Then, as you are ready, imagine yourself in an elevator (or on a stairway if you are phobic to elevators), and make this your own special magic elevator of whatever size that you feel comfortable in, whatever color that you find particularly soothing, possibly with a calming scent filling the air, and in a position that you find relaxing. It is ideal to be in this elevator alone, unless this brings up anxiety for you.

Imagine yourself at level 100 (either in the elevator or on a stairway with 100 stairs), and as you travel slowly down, level by level, you will become more and more relaxed, tranquil, and at peace with yourself. The elevator can exist in any type of environment, as it is your *magic* elevator. It may exist in a large redwood tree so that when you reach level one and exit you will be in a quiet, peaceful forest. It may exist in intergalactic space, and when you reach level one you will enter the stillness of the infinite universe. You may descend down to your favorite beach with a calming ebb and flow of the ocean in the background, further deepening your relaxation. You might want to create a special space or room of your own that does not in fact exist in your outer world. In essence, your imagination is the only limit to the kind of special place that you create at level one, and you will exit at level one and enter this special place.

Once there, use all five of your senses (seeing, hearing, smelling, tasting, and sensations) to experience all of the soothing qualities of this place. For example, if you are at the beach you can

imagine the sensation of the sun shining down on your body, feeling the warmth. You can hear the waves gently breaking against the shoreline, and a seagull flying overhead and singing its song. You can smell the salt in the air and feel the sand against your body, fully supporting it. The taste of salt air may also fill your mouth with a richness that deepens the image in your mind's eye. Looking out over the horizon or at the sun setting with its colorful display against the clouds and ocean's surface, you may feel deeply connected to the wondrous environment that you find yourself immersed in. Your imagination is the only limit to the visualization (involving all five senses) that you create.

After spending 20 or so minutes in this special place of tranquility, you can begin your ascent in your magic elevator, slowly returning to your awake, alert, and fully present state of mind at level 100, but carrying the calmness and relaxation that you achieved in your special place to your ordinary state of being. The more you practice this technique, the faster you will be able to achieve deep states of relaxation.

### **HATHA YOGA**

Hatha Yoga is commonly used in stress reduction programs because it guides you through a series of exercises that stretch different muscle groups, has you hold the posture for at least 20 seconds, and then relaxes the posture allowing the muscle groups to relax more so than they were. The breath is also used to work with the various postures to facilitate the stretch and deepen the relaxation. There are many books, audiocassettes, and videocassettes to teach you these exercises, as well as classes in most major cities where Hatha Yoga is taught. While practicing Hatha Yoga, it is important to maintain your attention on the muscle group you are working on, as developing the ability to maintain an alert presence of mind is a fundamental component to all stress reduction techniques (see the section on Breathing Meditation; with the

Creative Visualization, it takes an alert and attentive mind to maintain the mind's attention on the special place which facilitates entering deep states of relaxation).

### **PROGRESSIVE MUSCLE RELAXATION**

Progressive Muscle Relaxation is another common technique used in stress reduction, especially useful for individuals with chronic muscle tension. It is similar to Hatha Yoga in several ways. First, you should place yourself in a relaxed and fully supported position. Then ground yourself with a few slow, deep breaths. Next begin to systematically go through each muscle group, contracting the muscles for about 10 seconds, and then relaxing them as deeply as you can. You can go through the entire sequence two or more times in the same order.

One common approach is to start by contracting the muscles of both feet and legs, and then relaxing them. Then proceed through the body like with the Body Scan, with the major difference being the active contracting and relaxing of each major muscle group, and working with both sides of the body simultaneously. After spending 10 seconds in an active contraction, spend at least 20 seconds in passive relaxation. As with the rest of these techniques, plan to spend a solid 30 minutes practicing the Progressive Muscle Relaxation. At the end of the exercise, spend a few minutes feeling how different the body may feel as compared to before beginning this technique.

### **EXERCISE**

Exercise can also be used as a stress reduction technique as well as for obtaining a good cardiovascular workout. The exercising itself can become the object of meditation. Rather than

letting the mind wander or chatter endlessly, as it enjoys doing so much, focus the mind's attention on the movements of the body and the respiratory rate as you exercise. This helps to develop the one pointed awareness that is so crucial in any stress reduction technique.

### MUSIC

Music can also be used as a form of stress reduction. Follow the initial guidelines, and if you are comfortable allow your eyes to close. Choose some soothing music with *no lyrics* and focus your attention exclusively on the sound that your ears are hearing. As with all of the other techniques, if your mind becomes distracted, simply let the distraction go and return your attention to the music. Possibilities for music include: classical music, new age music, sounds of nature (i.e., the sound of a peaceful ocean surf), or any other type of music that you find particularly soothing.

### CONNECTEDNESS

One common outcome of *reduced stress and increased alert tranquility* is feeling more connected to the people and the environment in which you are always an integral part. The following story taken from the last page of Paul Reps' book Zen Flesh, Zen Bones (Anchor Books) embodies the essence of this connectedness:

"Inayat Khan tells a Hindu story of a fish who went to a queen fish and asked:

'I have always heard about the sea, but what is this sea? Where is it?'

The queen fish explained: 'You live, move, and have your being in the sea.

The sea is within you and without you, and you are made of sea, and you will end in sea. The sea surrounds you as your own being'."