

Bringing Balance to the World, One Brain at a Time

REFLEXEXERCISE™



Scott Musgrave, MSPT

Reflexercise™

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By Scott Musgrave, MSPT, Reflexercise™

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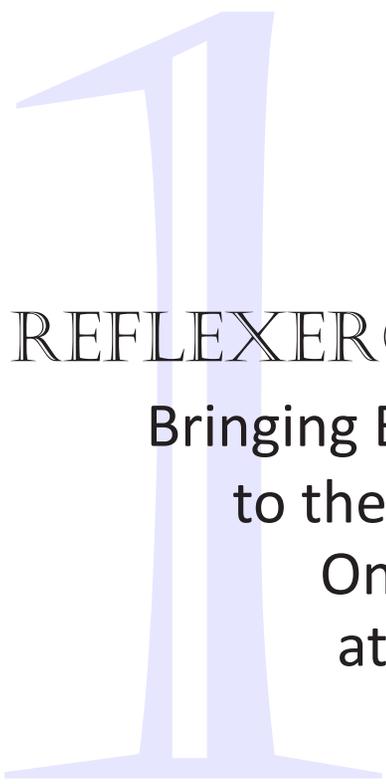
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REFLEXERCISE™

Bringing Balance
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at a Time

Would you like to be able to control your reaction to stress, reduce pain, improve your health and performance, and feel great?

Reflexercise™ was created by physical therapist, **Scott Musgrave, MSPT**. His powerful combination of techniques provides astounding results, enabling you to consistently **balance your nervous system**, and in the process, **train your brain to be less reactive to stress, trauma, physical and emotional pain!**

When you balance your nervous system, you give your body a method to discharge your brain's reactions to stress, anxiety, trauma and pain. **Reflexercise™** actually produces a brain chemistry change toward balance, and when your brain is balanced, so is your body!

With a little practice, you will be able to quickly (in less than 30 seconds!) and effectively perform these techniques in any setting, even in a crowded room.

Over the course of your life, like most people, you have learned to over react to stressful situations and hold onto the physiological effects (anxiety, depression, tension, shortness of breath...to name a few).

Reflexercise™ is an active process that allows you to retrain your brain (and body) to react appropriately relative to stressful situations, recover quickly, and be calm and balanced the rest of the time.



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WHEN YOUR
BRAIN IS
BALANCED,
SO IS YOUR
BODY!

Reflexercise™ is a powerful practice. It's like **rebooting your hard drive** and establishing a life habit that allows your nervous system to be less reactive and more effective.

Habits don't change easily. Successful change requires repetition and time. Retraining your nervous system to be less reactive to stress is no different. With each repetition of **Reflexercise™**, you actively train your brain to remain calm and relaxed during life's stressful situations. With enough repetitions, your nervous system's habitual

reactions will change with dramatic results!

Like any habit change, this life change requires an average of 21-28 days of consistent performance to be fully accepted within your nervous system. Some of you will require additional time based on your current stress levels and accumulated habits, while others may experience more rapid results. Consistent practice, however, is the key to positive outcomes in life, and it is critical to your success with the **Reflexercise™** program.

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THE ORIGIN OF REFLEXERCISE™

Scott Musgrave's Story

"I developed **Reflexercise™** as a self applied tool for my clients to maintain and improve their progress following our "hands on" sessions in the clinic. However, during a bout of low back pain in my own life, I refined the process to maximize results.

I began to experiment with different individual exercises, achieving moderate results at first. I was pleased with these results, but kept searching for something more effective. One particular day I was running late, stressed out and hurting. I decided to combine several of the individual exercises I had been performing (more out of a need to hurry than on purpose!). I WAS BLOWN AWAY BY THE RESULTS!

I experienced a powerful wash of calm and relaxation throughout my body

that had never occurred before when performing the individual exercises. I immediately knew that I had stumbled onto something that was very powerful, and I began to experiment and re-sequence the components until I found the perfect combination.

Once I was satisfied with the results I routinely achieved with **Reflexercise™**, I began to instruct my patients in the newly combined process. **The results shocked me!** Patients came back to the clinic with remarkable stories of progress after using **Reflexercise™**, some after only a few days. These folks experienced not only dramatic pain relief with their new exercise program, but also significantly reduced stress, anger, and anxiety, as well as improved performance on the job, at home, and on the playing field. Other benefits



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THE
RESULTS
SHOCKED
ME!

included decreased digestive difficulties, decreased use of long term pain, anxiety and depression medications, as well as increased relaxation, inner peace and happiness.

Upon hearing so many patient reports of incredible change, I decided to really put **Reflexercise™** to the test. I challenged myself to drastically increase the number of repetitions I performed daily to explore the full potential of the program. The lessons I learned through this experiment have significantly shaped **Reflexercise™** into its current format.

At 12-20 repetitions per day, I began to notice a very consistent decrease in my physical pain. I still did not achieve the same kind of stress reduction and other benefits many of my patients were describing, so I decided to incrementally increase the frequency until I reached 30 repetitions per day. This made a dramatic change in my personal results.



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I very quickly realized that:

- I was less anxious, more relaxed and calm.
- I communicated better at home and at work.
- I felt more relaxed inside my own skin, and...
- This filtered out into every part of my life!

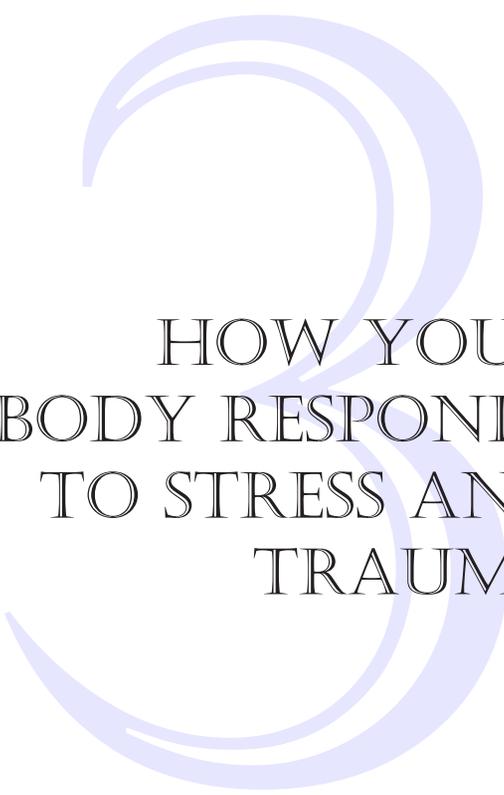
What really got my attention was when my friends and family began to ask me what was different. They noticed that something about me had changed, but couldn't see what was different from the outside. This opened my eyes to the full potential of this powerful process I had created:

Reflexercise™ calms your nervous system, conditions your brain and body to be less reactive to life's stressors (past, present and future) and promotes inner peace and relaxation.

Reflexercise™ creates homeostasis, or harmonious balance, within your body, and is the catalyst for normal movement, pain relief, release of tension, tranquility, improved performance and clarity of thought. By providing your nervous system with consistent exposure to **Reflexercise™**, you can actually extinguish your old habitual and protective reactions to stress and replace them with a new calmer default setting. In other words, you can reboot your nervous system and train yourself to live your life in a place of internal calm and peace.

WHEN YOUR
BRAIN IS
BALANCED AND
RELAXED,
YOUR PHYSICAL
BODY WILL
FOLLOW!

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HOW YOUR BODY RESPONDS TO STRESS AND TRAUMA

Before jumping into the specifics of the **Reflexercise™** process, you must understand some background information regarding your body's natural reactions to stress, anxiety, trauma, and pain. Your brain reacts the same way to all of the above conditions. That's right; your brain reacts very similarly when you encounter any of the following:

- Unresolved Pain
- Prolonged Stress
- Anxiety
- Emotional Distress
- Trauma (any negative life occurrence in a position of relative helplessness (Scaer, Robert, Md: The Body Bears the Burden, The Haworth Press. 2001. P1-7).
- A Real or Perceived Life Threat

These conditions often result in your brain initiating a pattern of protection by engaging a Flight, Fight and Freeze reaction within your body. This occurs underneath your consciousness, through your Autonomic (automatic) Nervous System.



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Your **Autonomic Nervous System** is responsible for every life sustaining function that occurs in your body, yet it never requires your conscious permission to do its job. This is the portion of your brain that is responsible for your:

- Heart Beat
- Blood Pressure
- Immune System
- Digestion
- Excretion
- Sexual Drive
- Hormone Balance
- The function of almost EVERY internal organ you own!

When was the last time you had to tell your heart to beat? Your immune system to fight off a virus? Your liver to cleanse your blood? You haven't had to due to the fact that all life sustaining functions and structures within your body are controlled not by your conscious, logical, thinking brain (cortex), but, instead, by your subconscious brain, which houses your **Autonomic Nervous System**.

Think of this like anti-virus software in your computer. It is always running in the background, monitoring your system for threats like viruses and spy programs. We all have felt the frustration of how the accumulation of these contaminates can bog down the ability of the computer to work efficiently.

Your Autonomic Nervous System sustains your life by constantly monitoring and adjusting your internal organs and systems, and also **protects your life**. When it receives a message of unresolved pain, prolonged stress, anxiety, trauma or any life threat, it automatically triggers a pattern of Flight, Fight and Freeze protection within your body. This protective pattern is initiated by a **Starle Reflex**, which involves multiple body parts, organs and systems with the single purpose of protecting and preserving your life. By understanding the components of the Starle Reflex, you will have a much better understanding of the process of **Reflexercise™**.



THE STARTLE REFLEX

The **Startle Reflex** is a systemic—whole body—reflex that prepares you to respond to a perceived threat. It is triggered when a **Flight, Fight and Freeze** cycle is initiated within the body.

For example, if a glass vase dropped to the floor and shattered behind you, you might Startle by flexing your elbows and elevating your shoulders, opening your eyes as widely as possible, and hopping forward away from the shattering sound. Or, if a dog came out of nowhere right at you from one side, you might Startle by moving quickly away from the streaking animal and placing one hand out as if to intercept the collision.

When confronted with a life threatening situation, human beings Startle in a pattern that is remarkably similar. Very rapidly, in a fraction of one second, the following actions occur:

- You make fists with your hands.
- Your arms rapidly cross over the mid-line of your body while you bend forward at your waist.
- Your head extends to look straight forward while your eyebrows descend as far as possible toward your eyes.
- Your eyes open as widely as possible.
- Your shoulders shrug upward toward your ears.
- Your toes extend upward, leaving contact with the ground.
- Your internal environment shifts into “critical action mode”.



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These body reactions are combined with internal systemic changes in a fraction of a second in order to protect your life. **While it is encouraging to know that you have such a highly reactive protective system hard wired in your brain, this same system can be habitually triggered during situations that are not actually life-threatening, and thus often contributes to stress-related health problems.**

1



Body Reactions During a Startle Reflex

You make fists with your hands.

Why Does Your Body Do this?

This occurs because you are preparing to engage in either a fight or flight situation, both of which are better performed with fisted hands.

2



Your arms rapidly cross over the mid-line of your body while you bend forward at your waist.

Crossing your arms over your abdomen and bending forward at your waist help protect your vital internal organs. Consider the survival value of this protective response for human beings with our life sustaining internal organs exposed.



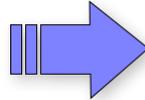


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3



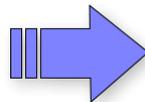
Body Reactions During a Startle Reflex

Your shoulders shrug upward toward your ears maximally.

Why Does Your Body Do this?

Shrugging your shoulders upward and slightly forward provides protection to your neck and the arteries that supply your brain with blood.

4



Your head juts forward while your eyebrows descend as far as possible toward the eyes.

Extending your head allows you to look forward, instead of down at the ground, thus allowing you to visually assess the situation. Lowering your eyebrows as far as possible toward your eyes filters as much light from the eyes as possible. Football players place black streaks below their eyes to take advantage of the same principle.



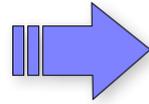


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5



Body Reactions During a Startle Reflex

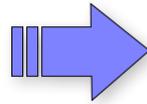
Your eyes open as widely as possible.

Why Does Your Body Do this?

This gives you up to a 190 degree field of vision to better assess the situation. (If your eyebrows had not descended to filter light away from your eyes, this process would be much less efficient.)

Your toes extend upward, leaving contact with the ground.

By lifting your toes up off of the ground, you are prepared to move in any direction quickly and efficiently.





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Systems Affected by the Startle Response

The Startle response involves multiple systems throughout the body, including the Nervous, Cardiac, Circulatory, Respiratory, Digestive, Reproductive, Muscular, Immune and Endocrine Systems. For a table explaining these changes, see [Appendix A](#).

Many of you reading this now are, in fact, unknowingly living your lives with protective cycles actively engaged within your bodies. Consider that the Autonomic Nervous System does not differentiate between real danger and a perceived threat such as stress, pain, anxiety and trauma.

The resulting internal changes and the long term effects of living in this kind of whole body imbalance can be devastating. The human body simply is not built to live at 150% capacity all the time. Think of driving your car at 150 miles

per hour ALL DAY LONG with no tune ups. How long would it be before you expect to have some mechanical problems resulting in a break down?

“Your body is no different”

The tendency for people to live their lives from a heightened state of protectiveness within their nervous systems is one of the main mechanisms for **DIS-EASE** to set into the body! This is reflected by the fact that The American Medical Association cites **STRESS** as a causative factor in over **90%** of ALL medical diagnoses.

The following ailments can often be attributed to the long term effects of living with this internal imbalance and being stuck in a perpetual state of Flight, Fight and Freeze:

- | | |
|-------------------------------|---|
| • Sleep Disorders | • Fibromyalgia |
| • Eating Disorders | • Myofascial Pain Syndrome |
| • Chronic Pain | • Chronic Fatigue Syndrome |
| • Headaches / Migraines | • High Blood Pressure |
| • Poor Digestion | • Racing (elevated) Heart Rate |
| • Irritable Bowel Syndrome | • Adrenal Fatigue |
| • Crohn’s Disease | • Anxiety |
| • Bowel / Bladder Dysfunction | • Suppressed Immune System Function |
| • Depression | • Long Term Reliance on Pain / Anti-Inflammatory Medication |



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Reflexercise™ is a grouping of techniques that allows your conscious brain to communicate with your unconscious brain in order to turn off the unwarranted protective tendencies you have accumulated throughout your lifetime. **Reflexercise™** provides you with the opportunity to condition your brain to be less reactive in situations that do not mandate immediate protective responses.

Communicating with the Autonomic Nervous System to Calm the Body's Defenses

Your Autonomic Nervous System can override your conscious brain during a time of need. It is constantly coordinating all of your vital life processes and making adjustments without your conscious permission --regulating your heart beat,

coordinating your breathing, coordinating the functions of your digestive system, excretory system, liver, kidneys, gallbladder, pancreas, hormone balance, immune system function, etc...

When your protective brain perceives anything as a possible life threat, it has the power to immediately react by initiating a Startle Reflex and the Flight, Fight and Freeze responses within your body!

No Permission from the Logical, Conscious Brain is Required!

The simple process of **Reflexercise™** is founded upon the concept of giving your body clear signals that counteract the heightened state of reactivity within your Autonomic Nervous System. Since the brainstem is the oldest, most primitive portion of the brain and is charged with all automatic (Autonomic) functions that maintain and protect your life, we must communicate with it using a primitive form of language that it can understand. After all, if your brainstem were influenced by your logical brain, you would be able to think yourself into calmness and relaxation when scared or out of pain when injured. As you know, this does not work!

The primitive form of communication that your Autonomic Nervous System does understand is body language. This portion of your brain is monitoring your body language every second of your life, making micro adjustments to all life sustaining tissues, organs and systems...



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BODY LANGUAGE COMMUNICATION IS THE BASIS OF REFLEXERCISE™

even in your sleep. Your Autonomic Nervous System also monitors and reacts to the body language of others in your immediate area, assessing any sign of threat. Consider that a threat does not have to be life threatening to activate your Autonomic Nervous System, you could simply be reacting to a person at a party that you dislike.

To shut off our protective system, we need to give the primitive brainstem the message that we are actually safe and don't need to protect ourselves in this situation. We use **postures, positive affirmations and breathing patterns** that counteract the Startle Reflex to send this message. These postures are the basis of **Reflexercise™**.

The postures described in the following instructions for performing **Reflexercise™** communicate to your primitive brainstem that you are NOT in danger, and they will result in restoring your body's natural and normal internal balance. Signs that you are experiencing internal balance include:

- A wave of calm and relaxation throughout your body,
- A release of stress and anxiety,
- Improved clarity of thought,
- Improved mobility,
- Dramatic pain relief.

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REFLEXERCISE™ INSTRUCTIONS

The process of **Reflexercise™** is very simple, and you can perform the exercise anytime, anywhere. I will describe each of the individual steps of **Reflexercise™** below. Once you understand the recipe of what to do, I will teach you how to combine these powerful steps into the full exercise format.

There are two main steps that you will learn to combine, resulting in a simple, fast, and very effective method of re-balancing your Autonomic Nervous System (re-booting your hard drive!).

First Step: Grateful Heart Breathing Technique

The first step is the “**Grateful, Heart Breathing Technique.**” This simple and effective breathing and visualization exercise is designed to access your heart’s intuition and rebalance your

emotions. Below are 3 options for doing this. Try all three at various times, and stick with the one that works best for you.

- Close your eyes and bring your mind’s eye to focus on the center of your chest. **Visualize the center of your chest**, where your heart lives.
- Try and actually **feel your heart beating** in the center of your chest. (This may take some practice to achieve success. Keep at it!)
- Once your heart focus is established, shift your attention to your pattern of breathing.

Completely fill your chest (and heart) with air during each inhalation, and slowly and gently empty your heart and chest of that air as you exhale. Breathe this way for a few moments.



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Choose one of the following **3 Grateful Heart Breathing Technique** options:

1. White light

As you inhale, visualize a white, calm healing light entering your body and gently filling your chest and heart. Allow this calm, healing light to illuminate your chest more brightly with each inhalation. You may wish to visualize “grabbing” the dark tension from any painful or traumatized areas of your body, and expelling it with your air as you exhale. Thus, you are visualizing that a white, calm healing light is entering your chest and heart during each inhalation, while dark tension is being eliminated from your body during your exhalation.

2. Gratitude

Focus your thoughts on something special that brings you a sense of joy, love, or happiness that you are **grateful** to have in your life. As you inhale into your chest, allow the joy, love, and happiness of your gratitude for that special something or someone to touch your heart. In essence, allow your heart to feel the warmth and connection to that special gratitude for a few moments.

3. Memory

Go back through your collection of memories, and focus on one of the most joyous, happy, and loving ones. Now, allow your mind to revisit that time or event in your life, and with each breath into your heart, allow your heart to FEEL the positive emotion of that memory.





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Note: Some folks have difficulty actually allowing their hearts to feel this connection, especially when just starting the Reflexercise™ process. If you have difficulty feeling the warm, happy feelings in your heart, don't dismay. Repetition is the key to success!

Once you identify the approach that produces the best results for you, focus on your **Grateful Heart Breathing Technique** frequently. Desired results can often be achieved in as little as 5 – 10 seconds with practice!

Second Step: Reflexercise™ Core Practice

Read the following instructions in their entirety, and then put down this manual and perform the technique.

1. Choose a position of comfort, whether standing, sitting or lying on your back. (Practice this process in all 3 positions so you can perform Reflexercise™ in any setting)

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Click Here for a BONUS Audio
from Scott Musgrave

2. Perform the **Grateful Heart Breathing Technique** as described above.
3. Place your hands down at your sides, with your palms facing forward and your fingers long and straight. Don't strain your arms, hands or fingers, but do keep your fingers straight, long and slightly spread out.
4. Turn your head very slightly, within a comfortable range, toward one side. Most folks find that turning toward their dominant arm produces the best results.
5. Gently bite the tip of your tongue between your top and bottom teeth. Not too hard, but not too softly either. Bite your tongue with medium pressure, but make sure your bite is within your comfort zone.
6. Gently curl your toes into the soles of your shoes or the floor, or simply curl them comfortably downward if you are lying on your back with no shoes. You may experience cramping in your lower legs, feet or toes if you curl your toes aggressively. Be gentle and make the experience comfortable for you.
7. Now, close your eyes and take **four deep, slow, cleansing breaths**.
8. Put down this manual now, and perform the steps above simultaneously.

Many of you reading this will feel an immediate wash of relaxation, peace and calmness as you complete **Reflexercise™**.



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The results of this powerful routine are achieved by sending a multi-layered message to your Autonomic Nervous System that you are NOT in danger and that promotes balance within your neurological and physiological systems (and, therefore, your very life). The relaxation response is a good indicator that you have effectively rebooted your hard drive.

Some of you may not immediately feel this relaxation response. Don't worry! With adequate repetition of **Reflexercise™**, you will become more in tune with living in balance, and will develop the ability to feel true inner peace and relaxation. Some folks have become acclimated to living so far out of balance that they may take some time to identify what true relaxation actually feels like!

Frequency for Success

To maximize the full potential of **Reflexercise™** and create a lasting life change, you must use the process **at least once per hour throughout the day**. This results in Classically Conditioning your Autonomic Nervous System to be less reactive to stress!

Consider that you tend to react in a habitual pattern when subjected to stress, whether that stress is external or internally induced. You can actually re-train your Autonomic Nervous System to stop reacting in this habitual manner by providing a consistent influence to extinguish the old patterns of reactivity within your brain, and replace them with a new level of relaxation. This is a basic explanation of classical conditioning.

Remember Pavlov? He was the guy who started ringing a bell when he fed his dogs and noticed that they began to associate the bell with food. After many repetitions of this association, the dogs began to salivate at the sound of the bell.

Your reactions to stress now fall into that same category of “learned associations.” When the stress bell of life rings, your Autonomic Nervous System salivates (reacts). You can change this association! You can change your habitual reactivity to stress by reconditioning yourself to remain calm and balanced during stressful situations. Classical conditioning is completely reversible with two components: time and repetition.



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Reflexercise™ provides you the opportunity to replace your current level of reactivity to stress and replace it with a healthy, calm balance within your Autonomic Nervous System. Force your Autonomic Nervous System into this balance enough, and you will recondition yourself to stop reacting in your old predictable patterns to the same stressful situations in your life.

Many of you reading this will require more frequent repetitions of **Reflexercise™** to offset your nervous system's current level of habitual reactivity. I sure did! The more frequently you perform **Reflexercise™**, the more rapidly you will achieve success in **training your brain** to be **habitually less reactive to stress**.

Many folks have cited wonderful success by performing **Reflexercise™**

2-3 times per hour. This increased frequency up front will result in achieving maximal balance within your brain. This is especially important for those achieving balance for the first time on your own, without coaching from a trained health care practitioner.

Once that balance is achieved, you must perform **Reflexercise™** long enough to form a habit. Simply make a **commitment to yourself** that you **WILL** do what is necessary to achieve this life change.

After awhile, you will not need to repeat the practice as frequently to produce the same sense of calm and relaxation. Many people progress to a point where they only require **two to three repetitions per day** to maintain balance within their lives.

Note: Those of you that have had an opportunity to work directly with myself or a trained health care provider, may not require the increased number of repetitions initially. For more information on Certified Health Care Providers, Contact [Musgrave Wellness and Performance](#)



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Why does the practice need to be performed so often (at first)?

Your brain receives, interprets and responds to every stimulus with which you come in contact. This means your body sends signals to your brain (from your five senses, skin, joints, muscles, internal organs...) every second of your life. No breaks. No vacations. Even when you sleep! Your brain interprets that information and then responds by telling your body what to do, how to do it, when to do it, and how often.

Your Autonomic Nervous System has adapted to a certain level of reactivity based upon the type and amount of stress you have been exposed to throughout your life. In order to change your nervous system's habitual

level of reactivity, you must extinguish the “old” tendencies and consistently replace them with a “new” default setting. Persistent exposure to this “new” setting will result in your brain's adaptation toward a state of balance, and this **state of balance** results in becoming **habitually less reactive to stress!** (Again, this is the process of classically conditioning your Autonomic Nervous System to adapt to a new default level of balance.)

To maximize this training process within your own nervous system, you must influence your brain to discharge stored stress. Every hour, your nervous system's “old” habitual level of reactivity will be subconsciously engaged.

Your job is to extinguish this pattern and replace it with a more calm, relaxed and balanced stimulus as often as possible. Each time you perform **Reflexercise™** you are **influencing your brain toward balance**, and effectively **training your brain to remain at balance**, even during stressful, painful, and traumatic times.

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IMAGINE THE POSSIBILITIES FOR YOUR LIFE!

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CREATED ESPECIALLY FOR YOU



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REFINING AND DEFINING THE REFLEXERCISE™ PRACTICE

Now, we will go over each respective step in the **Reflexercise™** process, and clearly describe how these postures **communicate powerful messages to your primitive brain:**

1. Choose a position of comfort, whether standing, sitting or lying on your back.

- **Reflexercise™** is designed to promote inner peace and balance within your brain and body by communicating comfort and safety to your whole system. The most beneficial positions to perform **Reflexercise™** are the most comfortable positions possible given your immediate surroundings. When you are not alone, you may choose to perform **Reflexercise™** standing, surrounded by people; however,

when you are home alone, you may opt to lie down on your back with your feet propped comfortably. By practicing different positions at home, you are preparing yourself to be more successful when you are in real life situations. With just a little practice, you will find **Reflexercise™** to be extremely adaptable to any environmental condition.

2. Perform the Grateful Heart Breathing Technique as previously described.

- This will align your heart (your emotional “brain”) with the intentions of your conscious brain, making the process much more effective.



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3. Place your hands down at your sides, with your palms facing forward and your fingers long and straight. Don't strain your arms, hands or fingers, but do keep your fingers straight, long and slightly spread out.

- During a **Startle Reflex**, your hands clench into fists as your arms cross over your abdomen in an attempt to protect your life sustaining organs. So, when your arms are placed down at your sides, palms forward with long, open fingers, you are communicating the opposite message to your primitive brainstem.
- With your fingers long and hands open, you are signaling your brain that you are not in danger, that you do not need to prepare for a

fight or flight response. When your arms are at your sides, with your palms forward, you are exposing, not protecting, your internal organs. This reinforces the message to your brain that you are NOT in danger, that you are safe and your body can remain calm, balanced and relaxed.

4. Turn your head very slightly, within a comfortable range, toward one side. Most folks find that turning toward their dominant arm produces the best results.

- By turning your head slightly, you are creating a muscular pattern in your neck that communicates a powerful message to your brain. When you are angry, frustrated or very tense, you may notice a pattern of muscular tightness throughout your neck. Think of the term, "hot under the collar". When you turn your head slightly to one side, you are signaling your brain that you are NOT angry or frustrated or upset; that you are calm and at peace. (This may be a physiological tie to the phrase: "turn the other cheek.")

5. Gently bite the tip of your tongue between your top and bottom teeth: not too hard, but not too softly either. Bite your tongue with medium pressure, but make sure your bite is within your comfort zone.

- You tend to tighten (clench) your jaw muscles in times of pain, frustration, stress, anxiety, and sadness, or when you are running late, or feeling depressed. This means that your jaw muscles are being held in a state of tension, and this tension is present when your brainstem engages a Flight, Fight and Freeze protective process.



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- **But . . . have you noticed?** What is your body's first reaction to accidentally chomping into your tongue? You quickly open your mouth and **INHIBIT** (relax) your jaw muscles (Masseter) from clenching any harder. This forced relaxation is the target goal of biting your tongue during **Reflexercise™**. By forcing your jaw muscles to relax, your Autonomic Nervous System will better promote relaxation within your body.

6. Gently curl your toes into the soles of your shoes or the floor, or simply curl them comfortably downward. You may experience cramping in your lower legs, feet or toes if you curl your toes aggressively. Be gentle and make the experience comfortable for you.

- When you curl your toes downward, you are signaling your brain that you are rooted to the ground; that you are safe and grounded; that you are not elevating your toes in preparation for a Flight, Fight and Freeze response. That everything is OKAY.

7. Now, close your eyes and take four deep, slow, cleansing breaths.

- When you breathe slowly, deeply and fully, you are sending a powerful message to your primitive brainstem that **YOU ARE NOT IN DANGER!**
- When you inhale, visualize that you are slowly and completely gathering all tension, stress and pain within your body.
- When you exhale, blow all that dark tension out with your air. Expel all negativity from your body and mind as you exhale. Many people find it very relaxing to exhale audibly, letting their voice vibrate with the air being expelled from within their bodies. This visualization has proven very powerful!



Bringing Balance to the World

One Brain at a Time

REFLEXERCISE™



REFLEXERCISE™ works by sending messages to the brainstem that oppose the signals associated with a life threat (stress, anxiety, trauma and pain), thereby instructing your subconscious brain to remain calm and relaxed even when subjected to the same stresses in life!



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One Brain at a Time

REFLEXERCISE™

Body Reactions During a Startle Reflex Associated with a Threat	Explanation of These Reactions	Messages Communicated to the Brain when Performing Reflexercise™
Your hands are clenched into fists	This occurs in preparation for a fight or flight reaction, both of which are better performed with fistened hands.	By holding your hands in an opened position, with straight, long fingers, you are signaling your brain that you do not need to prepare to fight or flight.
Your arms rapidly cross over mid-line of your body while you bend forward at your waist	Crossing your arms over your abdomen and bending forward at your waist help protect your vital internal organs. Think how important this protective response is in two legged animals (you and me) with our life sustaining internal organs exposed!	By holding your arms down at your sides, you are signaling your brain that there is no need to protect your vital organs. You are open and exposed, therefore everything must be alright. When combined with your hand position, this is a very powerful message!
Your shoulders shrug upward toward your ears maximally.	Shrugging your shoulders upward and slightly forward provides protection to the arteries that supply your brain with blood.	When you turn your head slightly, you are exposing your life sustaining arteries that supply your brain with blood. This reinforces the message that you are NOT in danger.



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REFLEXERCISE™

Body Reactions During a Startle Reflex Associated with a Life Threat	Explanation of These Reactions	Messages Communicated to the Brain when Performing Reflexercise™
<p>Your head juts forward to look straight ahead while your eyebrows descend (frown) as far as possible toward your eyes</p>	<p>Your head extends so that you may look forward, instead of down at the ground. Your eyebrows descend as far as possible toward your eyes to filter as much light from the eyes as possible. Think of sports figures placing black streaks below their eyes. This is the same principle.</p>	<p>During Reflexercise™, your head is held in a comfortable position, slightly turned to one side. This communicates a message to your brainstem that you are not angry, upset or frustrated.</p>
<p>Your eyes open as widely as possible</p>	<p>This maximizes your field of vision, allowing you to better assess the situation. If your eyebrows had not descended to filter light away from your eyes, this process would be much less efficient.</p>	<p>Your eyes are either closed or comfortably open during Reflexercise™. By keeping the eyes in a moderate range of open to closed, no alarms are set off in the brainstem.</p>
<p>Your toes extend upward, leaving contact with the ground</p>	<p>By lifting your toes up off of the ground, you are prepared to move in any direction quickly and efficiently.</p>	<p>When your toes are gently pressed downward, your brainstem perceives that you are rooted to the ground, therefore NOT preparing for a Flight, Fight and Freeze reaction.</p>

See [Appendix B](#) for more information on the physiology of Reflexercise™.





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One Brain at a Time

REFLEXERCISE™

TIPS FOR SUCCESS:

Your success with **Reflexercise™** depends upon consistent, frequent practice. Here are a few simple strategies my patients have used to improve their outcomes with **Reflexercise™**.

- **Watch.** Wear a watch with a programmable alarm feature set to remind you to perform **Reflexercise™** every 15, 30, 45 or 60 minutes. This is a fantastic method of keeping yourself on track. You can also set alarms on your phone, computer, kitchen timer, etc...
- **Stickers.** Place small stickers (red dots, smiley faces...whatever rings your bell) in strategic places. For

example: your wallet, purse, computer monitor, checkbook, sun visor in your car, TV remote control...

- **Jewelry.** Wear a special piece of jewelry, not your everyday kind of jewelry, as you have become so accustomed to seeing those pieces that you don't really take notice any longer. Choose something of sentimental value to you; something that you only wear on special occasions; something that catches your attention when you see it. Hold that special piece in front of your face and look into the mirror. Repeat several times: "Every time I see this today, I will think of performing **Reflexercise™**."
- **Buddy.** Practice with the attention of another person. It's often easier to anchor a new habit when you receive some personal encouragement. If Two or more people are learning **Reflexercise™** together, you can remind and encourage each other.
- **Pocket Reminder.** Many folks have benefitted from keeping a special stone, gem, crystal, coin or memento in their pocket, purse, desk, or workstation. Each time you notice that special something, take a brief moment to perform **Reflexercise™**.



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REFLEXERCISE™

Special Pocket Reminder: “Heart Stone”

I have personally utilized this method with great success! I keep a small polished stone in my pocket at all times (even to this day!). I call this stone my “**Heart Stone**”, and find it to be a very valuable, simple to use tool to keep me grounded throughout most situations. I’d like to tell you how I use my Heart Stone to provide you with an example of how you might utilize this method during your process of **life change**.

- When I first started to develop **Reflexercise™**, I very quickly realized that using some sort of reminder as a strategy would be necessary for me to maintain solid consistency. (You see, I have the same struggles of maintaining consistency as anyone else!) I began to search for something that resonated with my lifestyle, and to my surprise, that something kind of found me.
- My 5 year old son and I began to get interested in rock and gem hunting. We began collecting rocks and bringing them home to polish using a rock tumbler. This was a fun, free way to spend quality time together and improve our stock of booty. (My son was a renowned pirate at age 5...now at 6, he has moved on to being a respected Jedi...). One day looking through the pirate treasure, I noticed a particular rock that had previously caught my attention.
- I couldn’t help but pick up this stone, roll it around in my hands and feel its ultra smoothness. It felt good! I wanted to take this special stone out of the pile of loot, and had to haggle extra hard with that stubborn ol’ pirate to give up such a precious piece.



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REFLEXERCISE™

Special Pocket Reminder: “Heart Stone” ...continued

- I recognized that at the time I really needed a reminder to keep my own consistency at a successful level. So, I decided to put that special stone to work for me! I began to place the stone upon my chest when performing the **Grateful Heart Breathing Technique**.
- I focused my thoughts to the weight of the stone upon my chest, visualized breathing into and out from the stone and allowed my gratitude to flow into my heart and the stone. This, in a sense, “charged” the stone with my intentions toward change.
- I began to carry my **Heart Stone** around in my pocket. Each time that I noticed it was there, I tried to remember to perform **Reflexercise™**. This improved my consistency dramatically.
- Now, I use my **Heart Stone** differently. Because I no longer require even a fraction of the number of repetitions of **Reflexercise™** per day compared to when I began this process, I no longer use it as reminder for consistency. Rather, I now take a moment each time I am reminded that my **Heart Stone** is in my pocket, and allow myself 5-10 seconds of “Gratitude identification.” I take 5-10 seconds to recognize and focus upon something that I am truly **Grateful** to have in my life. I find this to be a very rewarding experience, and have many patients that continue to carry their **Heart Stones** long after their **life change** has been achieved!

Through hundreds and hundreds of patients achieving life changes far surpassing the pain relief that brought them to my door, I am proud to present to you a process that can literally provide you with the means to create a **HEALTHIER, HAPPIER, LONGER LIFE!**

You may inquire about how to obtain your Heart Stone by calling Musgrave Wellness and Performance at 303-932-1101, or visiting www.WellnessAndPerformance.com.



Bringing Balance to the World

One Brain at a Time

REFLEXERCISE™

YOU CAN
ACTUALLY
RETRAIN
YOUR
BRAIN

Keep in mind that while **Reflexercise™** regularly produces relaxation within your body, the real benefit comes in the knowledge that **YOU CAN ACTUALLY RETRAIN YOUR BRAIN TO BE LESS REACTIVE TO THE SAME STRESSFUL STIMULI IN YOUR LIFE!**

Not plastic like a water bottle, but plastic in the sense that your brain is **amazingly adaptable**. With enough stimulation, your brain will adapt to almost any possible condition. As an example, consider that a person with visual deficits develops very heightened sensitivities of taste, touch, hearing and smell. When visual cues are no longer accessible, the brain routes energy toward the remaining working senses.

Perhaps for the first time ever, **Reflexercise™** affords you the opportunity to actually do something about the automatic reactions of your protective brainstem. You can now engage in a process where the conscious, logical centers of your brain can exert enough influence over the unconscious protective centers of your brain to force a habit change. This habit change can dramatically alter the course of your life toward being the healthiest, happiest you possible!

REFLEXER CISE™

“MY DREAM IS FOR YOU
TO JOIN ME IN BRINGING
BALANCE TO THE WORLD,
ONE BRAIN AT A TIME!”





Appendix A: Systems Affected During Startle Reflex

Systemic changes that occur during a **flight, fight and freeze** reaction:

Systems Affected During a Startle Reflex	Body Reactions During a Startle Reflex	Explanation
Nervous System	<p>The Autonomic, or Automatic, Nervous System (housed inside your Brainstem) initiates a pattern of protection within your body, complexly involving multiple systems simultaneously with the ultimate goal of survival. Your instinctive brainstem engages this protective pattern similarly during:</p> <ul style="list-style-type: none"> • A real or perceived life threat • Unresolved Pain • Stress • Anxiety • Trauma 	<p>The automatic portion of your brain engages a Flight, Fight and Freeze pattern of protection within your body. A significant history of trauma may result in an elevated Startle response, which often precedes the development of a heightened state of nervous system reactivity to stress.</p>
Muscular System	<p>Multiple muscles can exhibit significant tightness, soreness, pain, trigger points, and tension. This can occur in distinct patterns or in random fashion through-out the body.</p>	<p>Your nervous system has a memory of the specific muscles you have previously used in a pattern of protection. Through this memory of trauma, your brain prepares the “weak links” of your body for possible hardship. Holding stress in your shoulders and neck muscles is a good example of a pattern of muscular protection being engaged by your automatic brainstem.</p>





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Cardiac System

Increased heart rate.

By increasing your heart rate and blood pressure, your body provides more blood to the muscles of your arms and legs – muscles that assist you in responding to perceived life threats.

Circulatory System

Increased blood pressure. Most people experience a constriction of the arteries, resulting in elevated blood pressure.

Respiratory System

Short, rapid breath cycles

Your body is preparing to supply massive amounts of oxygen to your bloodstream while discharging carbon dioxide.

Endocrine System

Hormonal imbalance becomes skewed toward the secretion of Cortisol into your blood-stream (which then becomes adrenaline). Other hormones, like Serotonin and Norepinephrine, which are responsible for relaxation, are inhibited.

Adrenaline is a hormone that enhances your ability to initiate actions that will help you escape a threat. This chemical “call to action” within your body inhibits hormones that produce relaxation during a perceived life threat. Long term exposure to this hormonal imbalance can have dire consequences on your internal health!

• Immune system

Decreased functionality of all systems that do not provide an immediate assist in escaping a threat. With long term exposure to this imbalance, these systems can become compromised.

Your brainstem initiates the same neurological “call to action” during times of actual danger as it does for unresolved pain, persistent stress, trauma and anxiety. This can often result in long term digestive, and immune system deficiencies, many of which are treated with pills by the medical community at large.

• Digestive system

• Excretory system

• Reproductive system



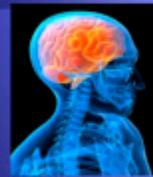
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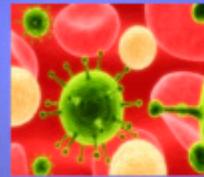
All of these changes occur within a fraction of a second when your Brainstem perceives that you are in danger. This portion of your brain reacts similarly to all of the conditions listed below:

- SUSTAINED STRESS
- ANXIETY
- TRAUMA
- PROLONGED PAIN
- A REAL OR PERCEIVED LIFE THREAT

Systems Compromised during Fight, Flight and Freeze



Nervous System



Immune System



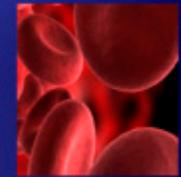
Respiratory System



Cardiac System



Digestive System

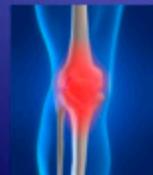


Circulatory System

Endocrine (hormone) system



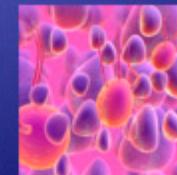
Muscular System



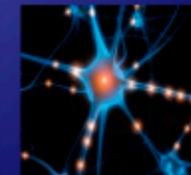
Skeletal System



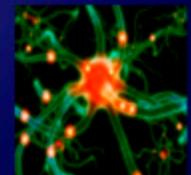
Reproductive System



Excretory System



The Inter-relationship of ALL Systems



B

REFLEXERCISE™

Appendix B: Messages delivered to your brain with each component step of Reflexercise™:

Reflexercise™ Procedure	Communication with Your Brain
<p>Choose a position of comfort, whether standing, sitting or lying on your back.</p>	<p>As our ultimate goal with Reflexercise™ is to promote internal relaxation, finding a comfortable position to perform the routine is important. You won't always be able to maintain the frequency required to achieve a life change in the most comfortable positions, but you will maximize your benefit from seeking out the most comfortable positioning afforded you by your immediate surroundings.</p>
<p>Grateful Heart Breathing Technique</p> <ul style="list-style-type: none">• Visualize your heart beating in your chest• Breathe into your chest and heart• Focus your thoughts on a white, calm healing light, happy memory or special gratitude in your life• Allow your heart to feel the warmth, happiness, love through your intentions	<p>By taking a brief moment and utilizing:</p> <ul style="list-style-type: none">• a visualization of white, healing light• a memory of a happy occasion• gratitude for something special in your life <p>You are centering your logical and emotional centers, and are better prepared to facilitate the brain chemistry change desired during Reflexercise™.</p>
<p>Place your hands down at your sides, with your palms facing forward and your fingers long and straight. Don't strain your arms, hands or fingers, but do keep your fingers straight, long and slightly spread out.</p>	<p>When your hands are open with long, straight fingers, you are sending a message to the brain that you do not need to prepare for a fight or flight situation. Moreover, with your hands placed down at your sides, you are telling your brain that you are not protecting your vital organs! This is a very powerful reflexive message for the brain that you are NOT IN DANGER, and consequently, can return to internal balance.</p>



B

REFLEXERCISE™

Turn your head very slightly, within a comfortable range, toward one side. Most folks find that turning toward their dominant arm produces the best results.

When you turn your head slightly, you are communicating to your brain that you are not upset, angry or frustrated.

Gently curl your toes downward.

This represents your being safely and securely rooted to the ground, NOT preparing to address a threatening situation.

Take 4 deep, slow, cleansing breaths.

Deep, full breathing is not the norm when you are responding to a life threat situation. By providing these four slow breaths, you are holding the positions of **Reflexercise™** long enough to facilitate the **targeted brain chemistry change**, as well as promoting a pattern of breathing more conducive to being fully relaxed.

Gently bite the tip of your tongue between your top and bottom teeth. Not too hard, but not too softly either. Bite your tongue with medium pressure, but make sure your pressure is within your comfort zone.

When your teeth engage your tongue, your protective brainstem inhibits your Masseter muscle from tightening any further.

Understand that Reflexercise™ relays multiple levels of communication to the brainstem, each of which promotes a shift away from Flight, Fight and Freeze protection and toward relaxation and internal balance or homeostasis. Any one of these messages individually can be very helpful, but when presented to your brain in this combined manner, the results are simply astounding!

Consider that with each performance of **Reflexercise™** you are **extinguishing the old protective patterning** that you have become accustomed to throughout your life, and **reinforcing a new pattern that promotes balance and relaxation.** With enough reinforcement, your brain will adapt to a new level of reactivity, one that does not engage your instinctive patterns of protection, but rather **promotes peace, relaxation and tranquility within your body.**



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There are several people that have played influential roles in my career, leading to the creation of Associative Awareness Techniques and Reflexercise™. I would like to honor them with a word of gratitude.



Marci Jensen, MSPT

Marci Jensen, MSPT, is the backbone and foundation of what has become my life's work. I am lucky enough to share my life with Marci and our two children. She has tolerated my many long hours of research and concentrated focus throughout the development of Musgrave Wellness and Performance and Associative Awareness Techniques. She has supported my quest to improve patient outcomes every step of the way, and I can honestly say without her, none of this would have been possible. Thank you, Marci. I'm so grateful for your continued support, love, encouragement and so much more... I couldn't have done it without you.

THANK YOU



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Ernie Quinlisk, PT

Ernie Quinlisk, PT, Creator of Reflex Relaxation™, Advanced PRRT Practitioner, Owner of Precision Physical Therapy and Quinlisk Wellness and Performance, has been the most influential person in my career. Ernie is one of the best Physical Therapists I have ever seen, a consummate professional, brilliant practitioner and genuine friend. Thank You, Ernie! You pushed me to explore new ideas, and began the entire creative process that has now culminated into my life's work.

www.QuinliskWP.com

THANK YOU



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John Iams, MA, PT

John Iams, MA,PT, Creator of Primal Reflex Release Technique™ (PRRT) is a remarkable practitioner, educator and health care innovator. When Ernie finally convinced me to go to one of John's educational courses, I had no idea what an impact that would have on my career. John's PRRT is absolutely life changing, for both patients and practitioners. You changed my perspective on health care, John, and empowered me to begin the most rewarding phase of my career. Thank You.

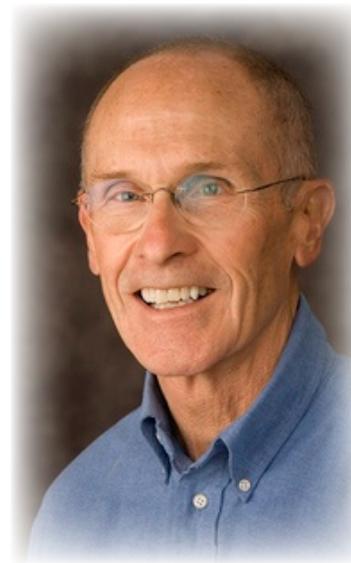
www.ThePrrt.com

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Robert Scaer, MD

Robert Scaer, MD Leading Traumatologist, International Lecturer and Author of *The Body Bears the Burden: Trauma, Dissociation and Disease* and *The Trauma Spectrum: Hidden Wounds and Human Resiliency*. Bob's work is groundbreaking. His ability to connect neurologically driven reactions to trauma with physiologically manifested patterns has been integral in the creation of Associative Awareness Techniques. Thank You, Bob. I truly believe your work will eventually change the face of western medicine.

www.TraumaSoma.com

THANK YOU