



## Physiology of Freedom - SomaYoga Therapy for conscious movement and pain resolution --YogaNorthDuluth.com

Learn to **recognize effects** of the stress response and **discover your body's hidden reactions** which can cause pain, dysfunction, and poor response skills. **Discover how to release some of these physical habits and gain easy practices** which can be used daily.

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### What is SomaYoga Therapy:

SomaYoga is a unique blending of work that includes:

- Traditional Yogic Philosophy from the Himalayan Tradition of Swami Rama
- Traditional Yogic Meditation and Training of the Mind
- Modern Systems Theory Practice and Personal Development
- Ayurveda
- Traditional Pranayama
- Classic Asana, Traditional Therapeutic Yoga and the Neuromuscular Re-Education of Somatics



SomaYoga uses neuromuscular retraining to undo the effects that stress, trauma, habit, and fatigue have on the body and mind. The methodology adds the principles of awareness practices and cultivating the ability to stimulate the relaxation response to increase gap time with breath and concentration techniques. In order to get the benefits of SomaYoga Therapy it is important to have a clear definition of some basic concepts and terms.

### The Body's Reaction to Stress:

Hans Selye recognized physiological disease could arise from psychological causes such as stress. Continual arousal of the **sympathetic nervous system** can and will create issues through a whole person. This is a somatic viewpoint: namely that everything we experience in our lives is a bodily experience. Sensory-motor systems continuously respond to daily stresses and traumas with **specific muscular reflexes**. These reflexes, repeatedly triggered, create habitual muscular contractions, which we cannot - voluntarily- relax. The contractions become so deeply involuntary and unconscious that eventually we no longer remember how to move about freely, breath completely or have the ability to engage the **parasympathetic nervous system**.

**Sensory Motor Amnesia: (SMA)** a kind of memory loss of how certain muscles or muscle groups feel and how to control them. It is an adaptive response of the nervous system that is mainly diagnosable and untreatable through traditional medical or surgical applications. Many clients with SMA are deemed "incurable" by current medical practice. SMA requires **reeducation** of the sensory motor system, **not traditional medical interventions or treatment**.

- Specific sudden trauma as well as long-term sustained stress can create SMA
  - Think of experiences that affect us as having hit points.
    - Whiplash = 100 hit points Forward hunching = 10 hit points.
  - Force is a traumatic insult while our day to day habits create small insults.
- SMA lives (occurs) in the nervous system.
- SMA is a learned adaptive response of the nervous system and because it is learned it can be unlearned. (the silver lining)
- SMA looks like a limited range of motion, pain or dysfunction. Some examples are TMJ, Plantar Fasciitis, Low Back syndrome, Urinary Urgency, Pelvic Pain, Frozen Shoulder, Digestion Issues
- SMA can be a both a contributing factor to and a result of anxiety, depression and ptsd.

## Stress Reflex/Response:



**Landau (“Green Light”):** The tightening of the extensor muscles of the spine in preparation to move

**Startle (“Red Light”):** The tightening of the forward flexors of the trunk. A withdrawal response. This response is also common in deskwork, manual device operation and driving.

**Dark Vice:** Involuntary simultaneous habituation of the Startle and Landau responses. A ‘stop-and-go’ response, formerly just commonly seen in the elderly (Senile Posture) and currently found running rampant due to the new unique habits of the technological age.

*This response will likely be familiar to those who need to respond to situations with action and who also need to work with computers, devices and are at desks or in cars for long hours*

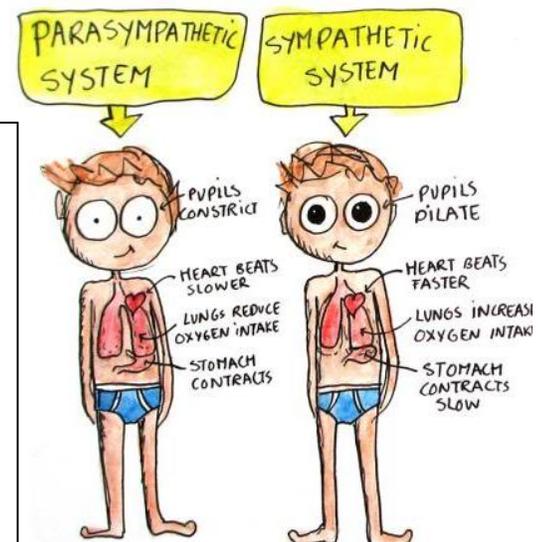
**Trauma:** The spastic cringing of the muscles nearest the site of an injury. A protective response. The body will contract, retract, immobilize and often rotate away from the site of injury, creating a tilt of the trunk to one side. This response is common from car accidents, after violence and from prolonged twisted or unbalanced posture occurring from anything from weighted belts, extensive computer “mousing” to walking with a cane.

**Nervous System Response:** The **Sympathetic Nervous System (SNS)** is activated by the excitatory neurotransmitter dopamine and is often called “Fight, Flight, or Freeze” system. Continuous activation of the SNS can cause a multitude of symptoms and disease

The **Parasympathetic Nervous System (PNS)** is activated by the inhibitory neurotransmitter Acetylcholine which relaxes our body and calms us down.

The most effective way to move from the SNS to the PNS is to breathe! Slowing down and deepening the breath allow the PNS to come back online.

Images stressresponse.com





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The good news is that we are wired to get our movement, function and resilience back!

**Learning Sensory Motor Competence:** Thomas Hanna learned that it is not a matter of simply trying to relax to release the contraction, you have to provide new input to the sensory motor system. Somatic Education & SomaYoga also teaches us that simply stretching will not create the desired long-term release of the contracted muscles. A person must become cortical to reeducate the muscles. Habits need to be brought into awareness and new pathways must be established. Reeducation occurs through using interoception, proprioception, and a combination of somatic 1<sup>st</sup> person awareness and 3<sup>rd</sup> person support.

**Exteroception:** Refers to the awareness of any stimuli that comes to us from the outside by way of the senses. This could include sights, sounds, smells, and more. This is an important factor in our ability to take in information necessary to live and work in the world.

**Proprioception:** The ability to sense the position, location, orientation and movement of the body and its parts. Important for our ability to respond to situations with ease and accuracy.

**Interoception:** “The physiological condition of the entire body and the ability of visceral afferent information to reach awareness and affect behavior, either directly or indirectly.

The system of interoception as a whole constitutes “the material me” and relates to how we perceive feelings and sensations from our bodies that determine our mood, sense of well-being and emotions.” Claire Fowler  
 Pain, comfort, hunger, stress, ease, tired are some of the words you may think of when working with interoception. How well do you listen to yourself? Develop this skill to combat the effects of the stress response.

**CYCLE OF LEARNING**

UNCONSCIOUS INCOMPETENCE
CONSCIOUS INCOMPETENCE
CONSCIOUS COMPETENCE
UNCONSCIOUS COMPETENCE

**Soma Scan & Breath:**  
 Concentrate on bringing the breath to your belly and settling into internal sensing.

**Arch & Flatten:**  
 Low back contractions-release followed by belly contractions-release

**Supine Side Curls:**  
 Lateral side contraction to release on both sides

**Shoulder Movements:**  
 Pro-traction Retraction Internal/external rotation

**Twists:**  
 Lower body transverse plane exploration

**Therapeutic Spinal Strip Practice:**  
 Pro-traction Retraction Internal/external rotation  
 Shoulder mobility pullovers

**Soma Scan for interoception**

**Therapeutic Classic Asana Practice:**  
 Cobra exploration  
 Cat Cow exploration of three planes  
 Rocking Table to Down Dog-Half Dog-Child’s Pose

**Twists:**  
 Upper Body - One shoulder up/forward while the other moves down/back  
 Lower Body – Low body turns to one side then back to center  
 Do both at one time and add the neck rotation

**Soma Scan & Relaxation:** Practice a few minutes of relaxing breath, body and mind at end of session.