

Clinical Roundup

How Do You Treat Stress in Your Practice?

Part 1

Neuro Emotional Technique

Hans Selye, MD, PhD, DSc (1907–1982), one of the first scientists to study stress, defined stress as: “[t]he non-specific response of the body to any demand for change.”¹ Dr. Selye found that the same physiologic and behavioral reactions occur, regardless of the cause of the stress—which can be physical, mental/emotional, or chemical in nature. Furthermore, stress can be the result of both real and imagined threats.² Regardless of the reality of a threat, the physiologic and behavioral responses are identical. These reactions, which include autonomic, endocrine, and behavioral responses, if prolonged, may prove to be harmful, even deadly.³

With these facts in mind, I liken our ability to cope with stress to a cup of water—with the water representing stress (see Figure 1). Everyone’s cup is unique, just as is an individual’s ability to cope with varying amounts of stress. When one’s cup is only half full, one is fairly resilient. But when one’s cup is nearing maximum capacity, bodily systems start to break down and illness results. When this occurs, we have two choices: (1) reduce the amount of stress; or (2) get a “bigger cup.”

I take a multipronged approach toward treating stress—and, by the way, I treat all my patients for stress. I work with people first to identify the causes of the stress in their lives, whether these causes are physical, mental/emotional, chemical, or other sources. Then we work to either reduce the amount of stress or to lessen its destructive impact, while, at the same time, helping patients become more resilient, giving them a “bigger cup.”

However, there is one significant hurdle to overcome when considering stress—many of us do not realize its cause. Phobias are good examples of this: Patients with phobias commonly have no recollection of any events that might have caused their phobias.⁴ The same may be said about anxiety or depression. People often do not really know why they are feeling this way. What is worse is that people may think they know what is causing their feelings, but, in actuality are frequently wide of the mark. This may be because a stress reaction can be a nonconscious learned automatic behavior.⁵ If one does not know its cause, then remedying it is nearly impossible.

One of the techniques I use to treat stress is the Neuro Emotional Technique® (NET), which has been shown to be effective for reducing stress and its sequelae.^{4,6–11} The beauty of techniques such as NET, and other similar tech-



Figure 1. The ability to cope with stress can be represented by a cup. Some stress is represented by the cup on the left, and a dangerous level of stress is represented by the cup on the right.

niques (e.g., PSYCH-K®), is that the cause of the stress can be identified through kinesiology-style manual muscle testing.^{12,13} If the stress has mental/emotional roots originating from painful events that occurred earlier in life and are long-forgotten, then, by using muscle testing, these events can be explored and resolved in a safe, therapeutic environment.¹⁴ This is done by recalling the specific event and fully feeling the emotion or emotions associated with the event until resolution is reached. Following a clearing, the urge to perform the automatic behavior is lessened, allowing patients to make better, more-conscious choices. I have used this approach for many years, and with it, I have seen countless patients gain relief, reclaim control, and return to good health and well-being.

References

1. Selye H. A syndrome produced by diverse nocuous agents. 1936. *J Neuropsychiatry Clin Neurosci* 1998;10:230–231.
2. Selye H. *The Stress of Life*. New York: McGraw-Hill, 1956.
3. Guyton AC, Hall JE. *Human Physiology and Mechanisms of Disease*, 6th ed. London: W.B. Saunders, 1997.
4. Jensen AM, Ramasamy A. Treating spider phobia using Neuro Emotional Technique™ (N.E.T): Findings from a pilot study. *J Altern Complement Med* 2009;15:1363–1374.
5. LeDoux J. *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Touchstone, 1996.

6. Monti DA, Stoner ME, Zivin G, Schlesinger M. Short term correlates of the Neuro Emotional Technique for cancer-related traumatic stress symptoms: A pilot case series. *J Cancer Survivorship* 2007;1:161–166.
7. Jensen AM. A mind–body approach for precompetitive anxiety in power-lifters: 2 case studies. *J Chiropract Med* 2010;9:184–192.
8. Jensen AM. The effects of NET treatment on short term rowing performance (power output): A case series. In: Association of Chiropractic Colleges Research Agenda Conference, Las Vegas, NV, March 18–20, 2010.
9. Jensen AM. Controlling pre-competitive anxiety in power-lifters using Neuro Emotional Technique (NET): Two case studies. In: Association of Chiropractic Colleges Research Agenda Conference, Las Vegas, NV, March 18–20, 2010.
10. Jensen AM, Ramasamy A, Marten K, Hall M. Improving flexibility with a mindbody approach: A randomized controlled trial using Neuro Emotional Technique. In: World Federation of Chiropractic 11th Biennial Congress, Rio de Janeiro, Brazil, April 6–9, 2011.
11. Bablis P, Pollard H, Bonello R. Neuro Emotional Technique for the treatment of trigger point sensitivity in chronic neck pain sufferers: A controlled clinical trial. *Chiropract Osteopat* 2008;16:4.
12. Jensen AM, Stevens R, Kenealy T, et al. The accuracy of kinesiography-style manual muscle testing: A proposed testing protocol and results from a pilot study. In: Association of Chiropractic Colleges Research Agenda Conference, Las Vegas, NV, March 18–20, 2011.
13. Jensen AM, Stevens R, Kenealy T, et al. The accuracy of kinesiography-style manual muscle testing to distinguish congruent from incongruent statements under varying levels of blinding: Results from a study of diagnostic test accuracy. In: World Federation of Chiropractic 11th Biennial Congress, Rio de Janeiro, Brazil, April 6–9, 2011.
14. Walker S. Neuro Emotional Technique® Certification Manual. Encinitas, CA: Neuro Emotional Technique, Inc., 2004.

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Sleep, Exercise, and Diet

Stress cannot always be avoided in modern life. Therefore, it is critical to give the body the ability to mount an effective and efficient defense against stress. The most important defensive

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Sleep allows the organs to regroup and refresh. It provides the body with a period of time when there are few external

energy demands and the cells of each organ are able to return to homeostasis, a state at which the physiologic and biochemical reactions of the body are at rest and are not striving to correct imbalances.

Exercise induces several groups of cells to perform a primary purpose for each group—that is, the pumping of blood from the heart to the organs and muscles, the delivery of oxygen along with the transport of waste to the lungs, the movement of air in and out of the lungs, and the contraction and movement of muscle fibers. Exercise helps the body retain memory of what the critical processes are, and, with regular exercise the body will be able to defend itself better against the influences of stress-related hormones and cellular destruction.

Finally, raw fruits and vegetables offer some of the most powerful defenses against stress in the form of vital vitamins, antioxidants, and other nutrients. Raw foods are natural sources of energy and sustenance and can therefore be assimilated better. Better assimilation leads to more-effective utilization for the multitude of biologic events necessary for a successful defense against stress.

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Building Resilience

Our approach to Hans Selye's (MD, PhD, DSc; 1907–1982) coined term *stress*¹ affirms the multidimensional layers/impact of stress on the human body and psyche. Patients coming to the OSU Center for Integrative Medicine (CIM) present for a variety of reasons, including consultation or treatment utilizing integrative approaches to mental illness, medical conditions, primary care, and proactive strategies for health. Patients may manifest a primary stress disorder somatically, while others may recognize stress as secondary to a medical condition.²

Physicians and complementary providers at the CIM are knowledgeable in recognizing primary and concomitant stress disorders, and in determining integrative strategies that address stress, based upon etiology and as part of a comprehensive whole-person treatment plan. Recommendations include: relaxing before sleep; a hot bath with lavender oil or magnesium salts; inhaling the aroma of essential lavender oil³; melatonin for inducing sleep onset; and valerian root, lemon balm, and passion flower to improve latency of sleep. Patients under extreme stress are advised to take a supplement with a well-balanced form of vitamin B-complex.⁴

In an attempt to meet patients' need for low-cost, community-based stress reduction, physicians and providers are now able to refer patients to receive a low-dose (a less–

time-intensive) adaptation of mindfulness-based stress reduction (MBSR-ld), called Mindfulness in Motion. It was designed for busy working adults, and has been shown to reduce perceived stress significantly ($P = 0.0025$) and increase mindfulness ($P = 0.01$).⁵ In beginning to offer group stress reduction, the impact on community health is affirmed. Individual need, provider expertise, and patient preference all factor into recommended interventions for addressing stress and building resilience.

References

1. Selye H. *Stress Without Distress*, 1st ed. Philadelphia: Lippincott, 1974.
2. Everson-Rose SA, Lewis TT. Psychosocial factors and cardiovascular diseases. *Annu Rev Public Health* 2005;26:469–500.
3. Atsumi T, Tonosaki K. Smelling lavender and rosemary increases free radical scavenging activity and decreases cortisol level in saliva. *Psychiatry Res* 2007;150:89–96.
4. Kennedy DO, Veasey R, Watson A, et al. Effects of high-dose B vitamin complex with vitamin C and minerals on subjective mood and performance in healthy males. *Psychopharmacology (Berl)* 2010;211:55–68.
5. Klatt MD, Buckworth J, Malarkey WB. Effects of low-dose mindfulness-based stress reduction (MBSR-ld) on working adults. *Health Educ Behav* 2009;36:601–614.

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Patient-Centered Perspective

Stress is an inherent component of our collective human experience. It is becoming apparent that we can manage stress effectively, which is of great importance in clinical care.^{1,2}

Our initial approach in treating stress is to help the patient understand how stress is translated physiologically in the body. Biofeedback, guided breathing exercises, and meditation are powerful tools for this purpose. Biofeedback gives the patient objective data to compare with his or her subjective state, while abdominal breathing and meditation allow a patient to be present in a state of relaxation.^{3,4}

Once a patient understands how stress is affecting the body and is committed to stress management, the next step is to create a care plan to achieve this goal. Gaining mindfulness into individualized stressors and the stress responses provides an opening for insight into how to develop meaningful coping skills.

Furthermore, we often evaluate the need for exercise and fitness, integrative nutrition, and targeted supplementation. Fitness is widely recognized to be effective for its impact on mental health and general well-being.⁵ A personalized program increases adherence, and is a necessity. We often refer

patients to an exercise physiologist and physical therapist to ensure an individualized focus. Integrative nutrition involves evaluating and addressing systemic inflammation, nutrient absorption, omega-3 fatty-acid imbalance, food sensitivities, and the need for supplementation.

Human beings are incredibly robust. Just as stress is to be expected in life, resilience is equally as inherent. Discovering the power of mindfulness, minimizing our reactions to stress, and evaluating lifestyle are all paramount for how we manage generalized stress in a clinical setting.

References

1. Dusek JA, Otu HH, Wohlhueter AL, et al. Genomic counter-stress changes induced by the relaxation response. *PLoS One* 2008;3:e2576.
2. Dusek JA, Hibberd PL, Buczynski B, et al. Stress management versus lifestyle modification on systolic hypertension and medication elimination: A randomized trial. *J Altern Complement Med* 2008;14:129–138.
3. Thompson L, Thompson M. Effective stress management using neurofeedback and biofeedback. *Appl Psychophysiol Biofeedback* 2008;33:129–138.
4. Ospina MB, Bond K, Karkaneh M, et al. Clinical trials of meditation practices in health care: Characteristics and quality. *J Altern Complement Med* 2008;14:1199–1213.
5. Ortega FB, Lee DC, Sui X, et al. Psychological well-being, cardiorespiratory fitness, and long-term survival. *Am J Prev Med* 2010;39:440–448.

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Integrative Approach

While I treat musculoskeletal disorders and pain, many of my patients have concurrent emotional stress, and occasionally distress. I use a combination of acupuncture techniques along with two programs within the institution with which I am affiliated—relaxation training and a *t'ai chi chuan* program. I found that the following combination of acupuncture points is most effective for treating stress:

- Auricular Vitality (193.F)
- Auricular External Nose (57.C)
- Auricular Tranquilizer (7.0)
- Auricular *Shen Men* (1.C)
- GV 20
- *Yin Tang*
- Seven Internal Dragons (CV 14, ST 25 B/L, ST 32 B/L, ST 41 B/L).

Our MindBody Program provides patients and staff with mind–body healing strategies and education, encouraging the incorporation of these strategies into patient care, and fosters a caring and healing environment throughout our institution. Some of the techniques used include breathing techniques, meditation, hypnosis, mindfulness, imagery, and healing touch.

Our *t'ai chi chuan* program is conducted by physical therapists who practice and teach *t'ai chi chuan*. The program is unique in being able to accommodate patients with various levels of disability, by adapting the program to individual persons' limitations.

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Mind–Body Medicine

Stress is a ubiquitous problem that has a negative impact on both physical and mental health.^{1,2} Mind–body medicine is highly effective for reducing stress in a wide variety of patient populations.³

Mind–body medicine includes such techniques as relaxation exercises, meditation, breath work, imagery, biofeedback, art, physical movement, autogenics, and self-hypnosis, among others. To help my patients overcome stress, I offer a variety of these techniques, and invite each patient to participate in designing an appropriate individualized treatment program.

My most frequent recommendations for stress reduction are breathing exercises and physical activity. Breathing, which lies at the boundary between the somatic and visceral nervous systems, is the one of the most direct ways to affect various body functions positively. Breathing exercises can be taught easily and effectively during a brief clinic visit. I also recommend physical activity for its ability to mitigate the damaging effects of stress on the body, both mental and physical.

The most important part of helping patients manage their stress is to lead by example. Our own self-care practice lends credibility to the advice we give our patients, improving both adherence and outcomes.^{4,5}

References

1. McEwen B, Sapolsky R. Stress and Your Health: Hormones and You. January 2008, Online document at: www.hormone.org/Resources/Other/loader.cfm?csModule=security/getfile&pageid=1119 Accessed January 25, 2011.
2. Mayo Clinic Staff. Stress: Constant Stress Puts Your Health at Risk. NIMH Web site. Online document at: <http://www.nlm.nih.gov/medlineplus/stress.html> Accessed January 25, 2011.
3. Pelletier, K. Mind as healer, mind as slayer: MindBody medicine comes of age. *Advances* 2002;18:4–15.

4. Gordon J. *The New Medicine: Philosophy, Content & Goals*. Washington, DC: Center for Mind Body Medicine Professional Training Program, 2010:119–173.

5. Frank E, Breyan J, Elon L. Physician disclosure of healthy personal behaviors improves credibility and ability to motivate. *Arch Fam Med* 2000;9:287–290.

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Patient Education and Self-Responsibility

At Integrative Health, the Complementary and Alternative Medicine services at Beebe Medical Center, I consider patient education and self-responsibility essential for managing stress. Consultation sessions and self-help classes

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are offered to help individuals recognize, assess and manage their stress levels. The relationship between stress and illness is examined and a personalized multifaceted plan is developed.

Evaluation sessions help patients identify key stressors in their lives. Using the GSR2™ [galvanic skin response] biofeedback system, these patients gain an understanding of their stressful thoughts and physiologic reactions. Patients learn to assess their own stress levels using the subjective units of discomfort scale (SUD) from 0 to 10 before and after a session. Patients are encouraged to keep a log and follow a stress-reduction plan to monitor their progress. Then patients are guided to experiment with different kinds of techniques to discover what they enjoy and what is most effective for them.

A variety of stress management techniques are offered to hospital inpatients, outpatients, and staff members. These methods include guided imagery,¹ mindfulness-based stress reduction (MBSR),² relaxation techniques,³ aromatherapy,⁴ acupressure,⁵ Therapeutic Touch,⁶ Reiki,⁷ Hawaiian *Laulima*,⁸ biofeedback,⁹ laughter yoga,¹⁰ *t'ai chi chuan*,¹¹ *qigong*,¹¹ herb information,¹² mandala meditation,¹³ and sound healing.¹⁴ Sound healing includes audio programs, nature sounds and music, a zither and keyboard for patients to play, hand drumming meditation, and singing bowl meditation. Massage, acupuncture and chiropractic therapies are also available.

References

1. Naparstek B. *Staying Well With Guided Imagery*. New York: Warner Books, 1994.
2. Kabat-Zinn J. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York: Delacorte Press, 1990.
3. Benson H, Klipper M. *The Relaxation Response*. New York: Morrow, 1975.
4. Price S. *Aromatherapy for Health Professionals*. New York: Churchill Livingstone, 1995.
5. Reed-Gach M. *Acupressure's Potent Points*. New York: Bantam, 1990.
6. Krieger D. *The Therapeutic Touch: How to Use Your Hands to Help or to Heal*. Englewood Cliffs, NJ: Prentice-Hall, 1979.
7. Stiene B, Stiene F. *The Japanese Art of Reiki: A Practical Guide to Self-Healing*. Ropley, UK: O Books, 2005.
8. Jim H, Arledge G. *Wise Secrets of Aloha*. San Francisco: Weiser, 2007.
9. Wickramasekera IE. *Clinical Behavioral Medicine: Some Concepts and Procedures*. New York: Plenum Press, 1988.
10. Kataria M. *Laugh For No Reason*. Mumbai: Madhuri International, 2002.
11. Jahnke R. *The Healing Promise of Qi: Creating Extraordinary Wellness Through Qigong and Tai Chi*. Chicago: Contemporary Books, 2002.
12. Jellin JM, Gregory PJ, et al. *Pharmacist's Letter/Prescriber's Letter Natural Medicines Comprehensive Database*, 10th ed. Stockton, CA: Therapeutic Research Faculty, 2008.
13. Tenzin-Dolma L. *Healing Mandalas: 30 Inspiring Meditations to Soothe Your Mind, Body & Soul*. London: Duncan Baird Publishers, 2008.
14. Goldman J. *Healing Sounds: The Power of Harmonics*. Rockport, MA: Element, 1992.

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Holistic Care for Chronic Psychosocial Stress in Women

I commonly see women (ages 18 to > 70) in the Women's Clinic, where I work, who have significant levels of psychosocial stress. Chronic stress over time may be associated with significant health issues, such as cardiovascular disease, some types of cancer, depression, and anxiety. Therefore, a critical component of the Clinic's holistic health care has been to help patients find effective, feasible methods of dealing with chronic psychosocial stress.

Several methods that I have used over the past decade to reduce the stress of my patients have yielded good results. The first step is to engage in therapeutic listening. I explore with patients their perceived or potential sources of stress, and help these patients to determine what course(s) of action might be most beneficial. Based on this approach, many CAM therapies such as yoga, exercise, journaling, and social support have been identified and used successfully. However, the most consistent strategy that has yielded success is referring patients to the mindfulness-based stress reduction

(MSBR) program led by two physicians and a physical therapist at the Clinic site. This program incorporates techniques, such as walking meditation, creating a life map, yoga, and listening to tapes of guided imagery. The response of the many women who have attended this course has been positive, life changing, and they report success in controlling the response to stress in their lives.

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Breath Psychology

Breath psychology is an ancient applied science, which is most effective for managing stress. The kind of treatment flourishes in economically less-developed countries of the world, in such forms as *pranayama* or *chi-gung*, and remains a foundation for modern public health care in general and psychotherapy in particular.¹

While the general public may learn readily to breathe properly through regular practice, owing to the typically stressful lifestyles of contemporary society, healthy breathing exercises are best learned in breath workshops run by an experienced breath practitioner. This allows participants to explore positive and negative aspects of arousal and stress; the intimately interrelated nature of breath and stress; how stress is typically associated with shallow or inhibited breathing; the benefits of relaxed diaphragmatic breathing; and the stimulating effects of longer inhalations and relaxing effects of longer exhalations. If further practice is needed, conscious four-stage breathing may be practiced for energy and concentration. Breath control effects can be amplified through imagery, actuality, and spiritual practices.

There are various means of assessing stress and breath patterns in a workshop. A participant may rate perceived stress level on a quantifiable scale and measure inhalations and exhalations by using a watch or following his or her heartbeat. For example, stress is reduced readily by inhaling to the count of three heartbeats and exhaling to the count of six heartbeats.

Reference

1. Edwards SD. Breath psychology: Fundamentals and applications. *Psychol Develop Soc* 2008;20:131-164.

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Homeopathy

The modern-day lifestyle is filled with many stressors, which, over time, can cause disturbances in human mental, emotional, and physical well-being.¹ In fact, stress-related illnesses account for a large number work absences² and have been linked to cardiovascular disease, depression, insomnia, and a variety of other illnesses.³ Individual personality traits

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(hereditary and childhood environmental factors) influence the response to, and recovery, from stress,⁴ and people vary greatly in their presenting symptoms and illnesses.

Homeopathy is a healing modality that aims to treat the individual person who has characteristic presenting symptoms, with the remedy that matches that patient's symptom picture most closely. Each homeopathic remedy has a unique mental/emotional and physical symptom picture. For instance, *Nuxvomica* is well-suited to a patient who has a "type A" personality and typically responds to stress with anger and irritability. *Natrum muriaticum* is good for patients who very often become introverted and depressed in response to stress. *Kalium carbonicum* can help patients who somatize their stress and usually develop peptic ulcer disease. *Ignatia amara* is a remedy for patients who respond to stress by becoming overly emotional, with tearfulness, sobbing, sighing, and rapid alternations of moods being most characteristic. *Gelsemium* and *Argentum nitricum* are remedies indicated for anticipatory anxiety, such as nervousness before an examination.

In complex homeopathic prescribing, the synergistic effect of many homeopathic remedies is obtained by selecting those remedies that address the symptom picture of anxiety and stress broadly. Our aim in practice, therefore, when treating patients homeopathically, is to look at a person's constitution holistically. It is our experience that homeopathic remedies, whether prescribed singularly or in complex combinations, may reestablish homeostasis and prevent the development of pathology. Further clinical research is needed to explore these applications and prove their benefits.

References

1. Cooper CL, ed. *Handbook of Stress, Medicine, and Health*. Washington, DC: Library of Congress, 1996:5,102.
2. Netterstrøm B, Bech P. Effect of a multidisciplinary stress treatment programme on the return to work rate for persons with work-related stress: A non-randomized controlled study from a stress clinic. *BMC Public Health* 2010;10:658.
3. Bao AM, Meynen G, Swaab DF. The stress system in depression and neurodegeneration: Focus on human hypothalamus. *Brain Res Rev* 2008;57:531-553.

4. Williams PG, Smith TW, Gunn HE, Uchino BN. Personality and stress. In: Contrada RJ, Baum A, eds. *The Handbook of Stress Science: Biology, Psychology, and Health*. New York: Springer, 2011:231-245.

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Naturopathy and Patient-Centered Care

The clinical presentation of stress is common, and one of the first steps is to try to understand the patient and see: (1) how he or she defines "stress" (physical pain, insomnia, fatigue, difficulty with concentrating, etc.); and (2) what the individual attributes the stress to. Then, taking a more detailed history can reveal the patient's determining factors of health and how healthy the patient is (is he or she getting enough sleep, nutritional support, social support, etc.?). I also want to discern whether a patient sees his or her own reactions to circumstances as something that the individual can change. Or does the patient feel helpless (which will add to the stress response)?

Most patients benefit from relaxation techniques,¹ as well as learning how to refocus on doing things to promote health, even if circumstances (such as financial ones) cannot be changed immediately. A chronic stress response will make a patient exhausted, if he or she does not begin to self-nourish and self-nurture.

I advise my stressed patients to reduce their caffeine intake gradually, as, typically, they are depending on the stimulation of such beverages as coffee. It takes time to substitute better sources of energy, such as improved nutrition and sleep. In naturopathic medicine, we often work to support the function of organ systems that are engaged (and overworked) in any given condition. When patients are stressed, some adrenal-gland support makes sense, even though it is not the complete solution. Pantothenic acid (vitamin B₅) is a cofactor in the production of catecholamines. Vitamin C is also necessary for the conversion of tyrosine to epinephrine, and there is a crucial role for ascorbic acid in catecholamine and steroidal-hormone synthesis.^{1,2}

References

1. Smith F. *Introduction to the Principles and Practices of Naturopathic Medicine*. Kingston, Ontario, Canada: CCNM Press, 2008:136-139.
2. Patak P, Willenberg HS, Bornstein SR. Vitamin C is an important cofactor for both adrenal cortex and adrenal medulla. *Endocr Res* 2004;30:871-875.

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T'ai Chi Chuan

There is no doubt that, by definition, stress is ubiquitous. It has been so since the beginning of time and will continue to be so until the end of time. While some stressors can be life-threatening, most modern stressors are not.

Centuries ago, our ancestors responded to the stress of a violent attack by developing forms of martial arts, such as *t'ai chi chuan*. Today we are more at risk from the distress associ-

There is no doubt that, by definition, stress is ubiquitous.

ated with the lack of physical activity and how we respond to the minor and not-so-minor challenges of life. Yet the ancient practice of *t'ai chi chuan* can still be used to address stress.¹⁻³ I have been teaching the "Tai chi for Arthritis" (TCA) form⁴⁻⁵ promoted by arthritis foundations⁶ as an effective intervention for helping individuals deal with both external stressors (such as traffic) and internal stressors (such as the physical or emotional pain from chronic disorders).

The gentle *qigong* movements of the TCA form, combined with a focus on breath, induce the relaxation response in many individuals. For example, in a seated position the *qigong* movements can be used with breath control to minimize the stress response to sitting in stationary traffic ("FIRST place the car in park; the person behind you will honk when it is time to move"); or to taking school examinations. I have taught the ancient art of *t'ai chi chuan* successfully for stress reduction to patients who have survived cancer, those with diabetes or fibromyalgia, elementary through college-age students, and educators at all levels.

References

1. Wang C, Bannuru R, Ramel J, et al. *Tai chi* on psychological well-being: Systematic review and meta-analysis. *BMC Complement Alternat Med* 2010;10:23-39.
2. Posadzki P, Jacques S. *Tai chi* and meditation: A conceptual (re)synthesis?. *J Holist Nurs* 2009;27:103-114.
3. McCain NL, Gray DP, Elswick RK, et al. A randomized clinical trial of alternative stress management interventions in persons with HIV infection. *J Consult Clin Psychol* 2008;76:431-441.
4. Lam P. New horizons...developing *tai chi* for health care. *J Aust Fam Physician* 1998;27:100-101.
5. Lam P. *Tai chi* for ageing and its associated chronic conditions. *J Ageing Physical Activity* 2004;12:347-347.
6. Arthritis Foundation. Arthritis Foundation Tai Chi Program.™ Online document at: www.arthritis.org/tai-chi.php Accessed April 5, 2011.

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T'ai Chi Chuan for a Traveling Medical Team

After a 36-hour journey by airplane and bus, a medical mission team I worked with arrived at the Ilula District Hospital in Tanzania. This interdisciplinary team of health care professionals traveled to this hospital in a village in Tanzania because of the passion in our hearts—a passion to help improve the ability of the health care providers in this village to deliver care to the people of Ilula and the surrounding communities.

However, in Tanzania, one does not start a visit with activities, one begins by building relationships. We first had to renew friendships with our colleagues in Ilula and build relationships with people we had not yet met. Yet, we were tired, jet lagged, stressed, and rattled by the last 10-hour bus ride over narrow mountain roads.

One person in our group recalled that I practice *t'ai chi chuan* at home in Minnesota and asked that I teach some simple movements to our group. Out on the porch of the guesthouse looking over the Tanzanian highlands, we practiced a simple form—the Yang style Eight Movement—by lifting our hands and settling into a *Wu Chi* posture. The tension in our backs, necks and legs gave way to concentration on the movements and graceful completion of each movement. I felt my *qi* gathering and renewing within me. To my surprise, this group of travel-weary medical providers all reported the same feelings. The use of *t'ai chi chuan* for stress reduction while we traveled allowed us to have a successful start to our mission.

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Relaxation and Biofeedback Techniques

Patients with psychiatric problems often have their own perceived stress and are much more sensitive to stress than people in the general population. Many forms of mental disorders have their origins in biology.¹ Stress has the potential to trigger underlying biologic changes or vulnerabilities in patients with psychiatric disorders, places these patients at increased risk for stress, and, eventually, may culminate in relapse of mental illness.

In addition, stress can disrupt symptom control in patients with mental disorders indirectly through effects on psychologic functions. However, attempts get over this hurdle and overcome stress actually induces more stress in these patients. Thus, finding good stress-management modalities to suit such patients well, and practicing these techniques on a regular basis is a worthwhile goal.

We applied relaxation and biofeedback techniques for stressed patients with psychiatric problems. Our focus was on modifying breathing rate, relaxing the muscles throughout the body, overcoming negative thinking, and calming disruptive thoughts,^{2,3} to reduce stress and anxiety.^{4,5}

Biofeedback, a type of mind–body complementary therapy, is based on the theory that mental and emotional factors can affect health. The modalities we applied for biofeedback included monitoring heart rate, respiration rate and depth, heart rate variability (HRV), skin-surface temperature, and electrodermal responses to measure, process, and provide feedback to patients regarding their neuromuscular and autonomic nervous system activity.^{2,3}

Biofeedback in our practice is combined with relaxation techniques. The relaxation and biofeedback program includes ten consecutive sessions daily, or at least 3 times per week, depending on the severity of mental and physical conditions. A single session can last ~ 40–50 minutes.

Biofeedback is effective for helping people learn to manage stress or emotional distress.⁶ Patients gain the ability to participate in the program, learn certain skills adapted to their particular needs, and benefit from their experiences. Patients also report improvements in outlook, reductions in psychological distress, and increases in perceived support from mental health professionals. These patients feel at ease and relaxed, which supports the utility of relaxation and biofeedback techniques for stress patients who have psychiatric disorders.

References

1. Golanty E, Edlin G. Health and Wellness, 10th ed. Boston: Jones & Bartlett, 2009.
2. Moss D, McGrady A, Davies TC, Wickramasekera I. Handbook of Mind–Body Medicine for Primary Care. London: Sage, 2003.
3. Schwartz MS, Andrasik F. Biofeedback: A Practitioner's Guide, 3rd ed. New York: Guilford Press, 2003.
4. Corrado P, Gottlieb H, Abdelhamid MH. The effect of biofeedback and relaxation training on anxiety and somatic complaints in chronic pain patients. *Am J Pain Manage* 2003;13:133–139.
5. Greco CM, Rudy TE, Manzi S. Effects of a stress-reduction program on psychological function, pain, and physical function of systemic lupus erythematosus patients: A randomized controlled trial. *Arthritis Rheum* 2004;51:625–634.
6. Dracup K, Westlake C, Erickson VS, et al. Perceived control reduces emotional stress in patients with heart failure. *J Heart Lung Transplant* 2003;22:90–93.

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Acupuncture for PTSD in War Veterans

Incorporating the 5-point auricular protocol used to treat stress, pain, and addiction, the acupuncture interns at the National University of Health Sciences, in Lombard, Illinois, have been recently treating veterans diagnosed with post-traumatic stress disorder (PTSD). These veterans have served in Viet-

nam, Korea, and Iraq and are treated in the University's "At Ease" Post Traumatic Stress Disorder Clinic.

Points needled include *Shen Men* (Neurogate); Sympathetic; Kidney; Liver; and Lung, bilaterally, and retained for 20–40 minutes. Patients are treated in private and in group settings once per week. Treatment duration is dependent on multiplicity and severity of symptoms. Of note is the decrease in heightened startle reflex, one of the byproducts of hypervigilance. This appears to reduce the fight-or-flight response normally triggered by stressful situations, whether these situations are real or imagined.

In some instances *qigong* relaxation exercises have been specifically used to treat anxiety, and *t'uina* acupressure has been included to relieve localized pain. In one such case, a veteran with severe shoulder pain and immobility had a significant lessening of pain (which was reduced from 9 to 3, with 10 being the highest number, based on a visual analogue scale) and restored use of his arm.

Veterans with common complaints, such as insomnia, anxiety, depression, fatigue, or drug dependence, have also gained significant relief after several sessions. One example is a Vietnam veteran who, after years attempting sleep in his recliner while surrounded by weapons, was able to return to his bed for a full night's sleep, without dependence on the antianxiety and anti-insomnia medications he had been taking.

Suicide is a major issue for recent veterans, with a *DAV Magazine* article reporting 18 veterans per day taking their own lives.¹ Constructive Living Counseling, an adaptation by David K. Reynolds, PhD, of Japanese behavioral-based Morita Therapy, is also being incorporated into treatment for patients with PTSD who have serious symptoms of depression. Recently, a request was made by a local veterans facility for the clinic at the University to offer acupuncture therapy in the near future to amputees who experience phantom pain. ■

Reference

1. Wilborn T. Suicide takes 18 veterans' lives a day. *DAV Magazine*, November/December 2010:24–25.

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For this interactive feature column, Clinical Roundup, a new question is posed and then answered by experts in the field. For our upcoming issue, which will continue our coverage of stress, we are seeking your contributions on how you treat it in your practice for possible publication in a future issue of the Journal.

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