

CEC ARTICLE LAUGHTER, JEST FOR THE HEALTH OF IT

By S. Fusco

The old adage our grandmothers taught us, “Laughter is the best medicine,” is presently being confirmed by the medical research community. Laughter is the evidence of the fun we are having in the moment, but can also be a sign of healing and keeping our balance as life throws us curve balls. A hearty belly laugh, one that brings tears to our eyes and leaves us gasping, can make a lot of evils disappear.

We all know stress can affect us negatively in every aspect of our lives; ie. physically, spiritually, intellectually, socially and emotionally, thereby affecting the way we feel, perform and communicate. Stress can also be positive in that it motivates one to achieve his goals and meet the challenges he faces each and every day.

Personal stressors may include homework, housework, financial concerns, energy levels, weight control, traffic, time management, care of children or the elderly, car pools, different schedules, cooking, planning, spouse or lack of, or the superwoman/superman complex.

Professional stressors may include your boss, co-workers, workloads, evaluations, deadlines, the 24-hour syndrome, interruptions, confidentiality, telephone, expectations, travel, politics, rejection at work or the environment.

Multiple stressors deplete our immune systems. As we experience distress (physical or emotional) antibodies are utilized in our systems to help us cope with these stressors. Add to that, multiple stressors depleting our immune systems further, we become increasingly susceptible to emotional or physical toxins. After each stressful event in our lives our immune system contains fewer antibodies and, therefore, antibodies need to be regenerated. If a sufficient quantity and/or intensity of stressors persist, and there is no opportunity for the immune system to recharge, a “breakdown” occurs. Breakdowns may be in the form of distressing emotions (crying), inability to work, physical ailments, etc.

When our immune systems are compromised distress (such as excessive anger, depression, anxiety, guilt or resentment) or physical distress (such as colds, headaches or stomach aches) often occur.

Psychoneuroimmunology describes a burgeoning field of medical sciences. It focuses on the interrelationships between the brain and the immune system. In everyday terms, it is known as “mindbody” medicine (Berk, 1994). Humor has a home in the brain. The brain may have its own “funny bone”, a finding that could explain why some stroke victims lose their sense of humor, scientists say. “A small part of the frontal lobes appears critical to our ability to recognize a joke”, says Dean Shibata of the University of Rochester N.Y., School of Medicine, who used magnetic resonance imaging (MRI) to map activity in the brains of 13 people exposed to humor in four tests. “In the future, scans of brain activity might be used routinely by psychiatrists to assess patients who

have mood disorders such as depression, which often is accompanied by a loss of humor”, says Shibata, who released his study 11/28/00 at the annual meeting of the Radiological Society of North America in Chicago.

Laughter has been visualized as humor exercise that takes place intermittently, all day long, any day, every day. Humor respiration (laughing, giggling, chortling, etc.) disrupts cyclic breathing, increases ventilation, and accelerates residual air exchange. The above results in enhanced intake of oxygen-rich air (Fry, 1986). Geleontology, the science of laughter from the Greek gelos, or laughter) confirms what we have always suspected, that we are all better off with laughter in our lives. (Brody, 1983).

Most of us have experienced the deep feeling of relaxation after a good physical workout. Exercise and movement release energy and stress. The body knows this intuitively. Laughter is linked to physical activity. Have you ever laughed so hard you shook? Spit out food? Laughter involves many muscles. For instance, you breathe more deeply. Just as a body will shake automatically to relieve stress, so will it laugh automatically to help in the reduction of stress. Laughter is a healthy, stress relieving activity. Just as laughing relieves stress, so does crying. Laughter and crying are related. Sometimes we laugh so hard we cry, and cry so hard we laugh.

Because of its stress relieving properties many people habitually use laughter to cope in difficult situations. Laughter affects our biochemistry and changes how we feel physically. Laughter is the physiological reaction to humor. The research on laughter, while limited, indicates that there are physiological benefits from laughter including an increase in bacteria fighting antibodies, a decrease of specific stress hormones, and a decrease in heart rates. It has been noted that three minutes of belly laughter is equal to ten minutes of workout on aerobic machines (Faelton, 1989). Laughter, like aerobic exercise, diffuses physical tension directly, according to gerontologists.

Fry (1977, 1979) studied the physiological effects of laughter on both the cardiovascular and respiratory system. He found an increase in heart rate and blood pressure during laughter followed by a brief period where the heart rate and blood pressure levels drop below pre-laughter baseline, indicating a stimulation-relaxation pattern. He likens the combined cardiovascular, respiratory and musculoskeletal effects of laughter and humor to physical exercise.

Literature includes many definitions of humor. “Humor comes from the archaic term (umor) meaning “moisture, vapor” (Ferguson & Campinhas-Bacote, 1989; Keller, 1984; McGhee, 1979; Robinson, 1978). It was the belief in medieval times that when the four principal body fluids (blood, phlegm, yellow bile, and black bile) were in balance, one was in “good humor”. Today when we speak of a person’s “good humor”, we refer to one’s sense of well-being and readiness to laugh (Robinson, 1978). James Thurber the author, has defined humor as emotional chaos remembered in tranquility. Fry admits that humor exercise does not compare episode-for-episode with marathon running or competition swimming in terms of exercise quantity and intensity. He points out that patients, such as those bound to wheelchairs, those who are bedridden, and those who

cannot access or afford additional exercise equipment could definitely benefit from humor therapy initiated by a professional nurse.

Norman Cousins, an early editor and writer for The Saturday Review believed that he literally laughed himself back to health. Cousin's book, Anatomy of an Illness, described his successful fight against a life-threatening form of arthritis (ankylosing spondylitis). He explained how he refused to take pain killers and instead, watched old Marx Brothers films and "I Love Lucy" episodes in a hotel room rather than lie in a hospital bed. Cousins credits humor with healing his body and enhancing the effectiveness of his treatment.

A recent study at Loma Linda University Medical Center in Loma Linda, California revealed that "laughter may be an antagonist to the classical stress response" (Brody, 1991). Five subjects watched a 60 minute humor video and five did not. Blood samples were taken every 10 minutes for two hours—before, during and after the video. Epinephrine and dopamine levels in those who watched were significantly lower throughout (Berk, 1994). Epinephrine and dopamine are naturally occurring chemicals in the body which alter the stress response (Whitney, 1990).

Researchers speculate that the pituitary gland may also stimulate release of endorphins and enkephalins, natural painkillers and chemical cousins to opiates such as morphine and heroin. These serve as organic analgesics, and these chemicals may combat arthritis and other painful inflammatory conditions (Brody, 1991).

Dr. Paul Eckman and colleagues of the University of California at San Francisco, School of Medicine, measured physiological differences during six emotional states: surprise, disgust, sadness, anger, fear, and happiness. They asked sixteen individuals, actors and scientists, to mimic prototypical emotional facial expressions. During this experiment, measurements of heart rate, hand temperature, skin resistance, and muscle tension were taken. The results were striking; not only did significant physiological differences between the negative emotions and the positive emotions appear, but different emotions produced different effects. Happiness was associated with low rises in heart rate and hand temperature while anger was just the opposite; creating a high heart rate and hand temperature increases (Cousins, 1989).

Therapeutic humor is any lighthearted, joyful, humorous interaction which is constructively used to maintain or improve well-being (American Association for Therapeutic Humor, 1986). Because of its stress relieving properties, many people habitually use laughter to cope in difficult situations. Stressful professionals are known to use what is sometimes referred to as "gallows humor" to relieve stress; for example, doctors and nurses in surgery; soldiers in combat; the staff in a mortuary. They sometimes use humor to lighten the tension of frequent stressful situations. The television show, *Mash* had Hawkeye Pierce and others using humor to diffuse the stress of war.

Laughter is beneficial for persons suffering from muscle tension (Fry, Goodman). When an individual laughs, first the skeletal muscles tighten during the anticipatory response. Then, when the climax occurs and laughter is triggered, muscles in the body relax. In particular, there is a marked decrease in the musculoskeletal activity with relaxation in the intercostal muscles, the abdominal muscles, the diaphragm, and muscles of the neck and shoulders (Fry, 1977, 1979).

Humor works to strengthen the Mind, Body, Heart and Soul.

MENTALLY, humor allows you to see multiple points of view. A laugh is your body's recognition of another perspective. Having more than one perspective in any situation is the key to managing stress.

PHYSICALLY, humor serves several functions. One is to release tension from the body. Tension is the physical manifestation of stress. It turns out that laughter and tension cannot exist in the body at the same time.

EMOTIONALLY, humor works by manipulating psychological distance and perspective. At times it allows us to feel closer to people and events. It helps us both thrive and cope, restoring balance to our emotions. Think about the people you most enjoy being with. Isn't their sense of humor an important factor in the quality of the relationship?

Of course we also have energy-drainers in our lives. They may be people we work with or perhaps even members of our own family. They are the ones who come over and suck the life force right out of us.

Spend as much time as you can with the energy-givers and become an energy-giver to others by activating your sense of humor. I believe that shared laughter is love made audible. Shared laughter is a bond between people. It helps us feel connected to each other and less alone in the world.

SPIRITUALLY, humor is about "lifting our spirits"-taking ourselves lightly and recognizing that our physical reality is not the only one out there. A spiritual path is one upon which we pursue truth, meaning and purpose in life.

We are more likely to live healthy and happy lives if we maintain our physical and emotional resilience. To do so we can develop our "comic vision" – a way of perceiving the world that allows us to be receptive to the humor around and within us. Heightened receptivity to humor can stimulate our ability to be increasingly interactive with, and even proactive toward the world around us. In this way we can perceive humor in our environment and experience the healing potential of humor as it assists us to become healthier beings through its ability to help us change and manage our biochemical, cognitive, emotional and behavioral states.

SOCIALLY, humor is found to reassure, convey information, release tension, and draw people more closely together. Humor can also provide an outlet for unacceptable social

behavior or impulses. Many an embarrassing situation has been spared by the phrase, “I was only kidding!” Humor is used to ease social tensions, to indicate friendly intent, and to strengthen social bonds. By distracting one from day-to-day concerns and banishing gloomy thoughts, if only for a moment, laughter can relieve anxiety, tension, and boredom. Laughter converts fear, pain, or pity into pleasure. Just as important, laughter often promotes rapport, intimacy, even friendship. Fry believes humor holds the potential to stifle, and maybe even eliminate, the impulse toward war (Fry, p.232). Humor aids us in balancing lifestyle with self, family, friends, community, planet, and universe.

If humor and laughter is “the best medicine” then how do we sustain it as a central part of our day-to-day lifestyle? The greatest benefits of humor lies in our daily ability to use humor to reduce emotional and physical distress which may ultimately lead to increased wellness.

Many one-day workshops are being conducted around the country in all aspects of humor therapy. The American Association for Therapeutic Humor was founded by Allison Crane, RN in 1986 to encourage more bedside laughter. Today, the Association touts more than 500 members which include many physicians who engage in stand-up comedy both at work and outside of the hospital in comedy clubs.

Aside from hospitals and therapeutic humor associations, individuals are creatively bringing humor and fun to the workplace. With the use of “The Humor Project”, in Saratoga, New York, Joel Goodman, the Educational Director says his clients are having more fun by not taking their jobs and lives so seriously. They are learning NOT to forget to have fun!

As a matter of fact, laughter projects have reached outside this country. The World Laughter Tour was started in India by Dr. Maddan Kataria. He was prompted to experiment with the positive effects of laughter because he noted that patients whom he seldom saw were happy and had positive attitudes. Those he saw frequently, were people with negative outlooks who tended to be stress-prone. One day he went out into a park with a couple of colleagues and started to laugh for no reason. After a few days, other people joined in the laughter. They started forming humor groups and now there are at least 400 Laughter Clubs in a country that has little to laugh about.

Steve Wilson and Karyn Buxman founded the World Laughter Tour in the U.S.A. Together, they conduct two-day laughter seminars where people become Certified Laughter Leaders and have formed Laughter Clubs all around the USA, Canada and even Europe and Australia.

No doubt, balance among the physical, mental, and spiritual aspects of being is central to overall health. Laughter and humor are very valuable tools we can all use. Perhaps, the world would be better off if people supplied themselves with a “humor first-aid kit” along with the band aids in the medicine cabinet? A few jokes or playful messages, a smile,

and an extra hug would also come in handy. There is a big difference between existing and living. Laughter is not a laughing matter but rather a living matter!

References

Berk, L. (1994). New discoveries in psychoneuroimmunology. Humor and Health, 25.

Brody, R. (1983). Anatomy of a laugh. American Health, 43.

Brody, R. (1991). A healthy sense of humor; A good laugh may actually be good for you. St. Louis Post-Dispatch Magazine, 5/26/91.

Cousins, N. (1989). Headfirst the biology of hope. New York: E.P. Dutton.

Faelton, S. (1989). Take control of your life. 67, 285-287.

Ferguson, S. Campinha-Bacote, J. (1989). Humor in nursing. Journal of Psychological Nursing, 27(4), 29-34.

Fry, W. (1977). The respiratory components of mirthful laughter. Journal of Biological Psychology, 19, 39-50.

Fry, W. (1979). Humor and the human cardiovascular system. In H. Mindess, J. Turek (Eds.). The study of humor. Los Angeles: Antioch University.

Fry, W. (1986). Humor, physiology, and the aging process. In L. Nahemow, K.A. McCluskey-Fawcett, & P. E. McGhee (Eds.). Humor and aging New York: Academic Press.

Keller, K. (1984). Humor as therapy. Wauwatosa, WI: Med-Psych.

McGhee, P. (1979). Humor: Its origin and development. San Francisco: W.H. Freeman.

Robinson, V.M. (1978). Humor in nursing. In C. E. Carlson & B. Blackwell (Eds.), Behavioral concepts and nursing intervention, (pp.129-150). Philadelphia: Lippincott. (Originally published, 1970.)

Whitney, E. Hamilton, E.M. Rolfes, S. (1990). Understanding nutrition, N.Y.: West Publishing Company.

CEC ARTICLE QUESTIONS VOL 4, 2005

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1. List 6 Personal stressors

2. List 6 Professional Stressors

3. Multiple stressors deplete our _____ by utilizing _____ to help us cope thus we become increasingly susceptible to _____ or _____ toxins.

4. After each stressful event in our lives our immune system contain fewer _____ and need to be _____.

5. If a sufficient quantity or/or intensity of stressors persist with no opportunity for the immune system to recharge a “_____” occurs.

6. List 4 distressing emotion forms of a breakdown.

7. List 3 physical distress forms of a breakdown.

8. _____ is a field in the medical sciences that focuses on the interrelationships between the brain and the immune system. It is also known as _____ medicine.

9. What part of the brain is the “funny bone” and what does it do and what population loses their sense of humor?

10. What are humor respiration components?

11. What do the humor respirators do?

12. What feeling do laughter and a good physical workout have in common?

13. How are laughter and crying related?

14. Laughter affects our _____ and changes how we feel _____.

15. List 3 physiological benefits from laughter?

16. ___ min of belly laughter is equal to ___ min of workout on aerobic machines.
17. What did Fry(1977,1979) find about heart rates and blood pressures after laughing?
18. Fry admits what when comparing humor to exercise quantity and intensity?
19. What special populations according to Fry can benefit from Humor therapy and why?
- 20.How did Norman Cousins laugh himself back to health and what was his illness?
21. In a study by Loma Linda University what two chemicals were lower in the subjects who watched the humor video? What do those chemicals do?
22. Researchers speculate that the _____ gland may also stimulate the release of _____ and _____ which are _____. These serve as organic _____ and may combat _____ and other _____.
- 23.What 6 emotions states did Paul Eckman study?

24. What measurements were taken during this study?

25. What were the results?

26. How does laughter benefit someone with muscle tension?

27. MENTALLY humor allow you to _____.

28. PHYSICALLY humor serves to _____.

29. EMOTIONALLY humor works to _____
_____.

30. SPIRITUALLY Humor is about _____
_____.

31. SOCIALLY humor is found to _____
_____.

32. Spend as much time as you can with _____ and become a _____
to others. Avoid energy-drainers who _____ the life force out of us.

33. List 3 associations, projects and tours current promoting and researching humor
therapy.

34. Balance among _____, _____, and _____ aspects of being is central to _____.