

Tipping Point: Stay Strong, Flexible and Balanced with Exercise

Much of life is a balancing act...from learning to sit up as an infant through avoiding falls in the later years. Balance is the ability to distribute your weight in a way that enables you to remain upright and steady. This requires multiple systems in your body to be working in sync with your brain, including: the central nervous system (spinal cord), the vestibular system (inner ear), the visual system (eyes), as well as position-sensing nerves, muscles and bones.

While balance is important at every stage

of life, changes associated with aging such as weaker, more inflexible muscles, slower reflexes, worsening eyesight and fewer cells in the vestibular system can affect your balance. Inner ear disorders, Parkinson's disease, stroke, neuropathy and dips in blood pressure can also impact balance. According to the Centers for Disease Control and Prevention, at least one out of every three people over 65 experiences a fall each year.

The good news is that a wide variety of exercises, from weight training and aerobics to simple daily walks, can help you maintain and significantly improve balance as you age. A consistent regimen of training rehabilitates and strengthens muscles and improves stability and postural alignment. The benefits extend to a person's emotional and psychological



well-being. According to experts, "fear of falling" is ironically one of the biggest predictors of a fall, and faithful adherence to an exercise routine that includes balance-specific training replaces the fear with confidence.

A program to improve balance does not need to be complicated. Begin slowly with regular walks, and try simple exercises such as balancing on one foot or following along with a guided routine on a DVD. More targeted balance training may be done at a fitness center or through the use of a personal trainer or physical therapist. Professionals can assist you in conditioning the core—the set of muscles, bones and joints that link the upper and lower body and enable you to bend, twist, rotate or stand in one spot without losing your balance. An effective core workout may include exercises such as squats, lunges, twists and ab crunches. Exercise experts also can introduce you to the use of specific equipment to challenge you while improving your balance, such as a BOSU (both sides utilized) balance trainer, a stability ball, or standing on a spongy, unstable surface.

Pilates, yoga, and the ancient Chinese art of tai chi, are also excellent for improving balance and core strength. Tai chi combines meditation with slow, graceful movements and deep breathing and relaxation, helping people achieve an inner serenity.

This approach benefits both mind and body, shown in multiple studies to: build up bones, stabilize joints, lower blood pressure and heart rate, bolster cardiovascular health and immunity, enhance quality of sleep, reduce stress and enhance mood. Practicing tai chi has been shown to reduce falls in seniors by up to 45 percent, and has proven effective in helping people with Parkinson's disease achieve better balance.

A fall can occur anywhere at any time at any age. Therefore, the importance of body balance in one's daily life should not be minimized. The American College of Sports Medicine recommends a program that combines strength, balance, flexibility and endurance. Explore one of these options you believe may work for you, call my office...and get started!

From the desk of Daniel R. Jasper, MD

Dear Patient:

What better time than spring to regard long-held routines with a revitalized outlook? In this issue of *HealthWise*, we bring you new insights that may spur some healthy changes in the way you move, drink and think about healing. We examine the literal balancing act we perform every day that makes it possible to do activities we all take for granted, from getting out of a chair to strolling down the block. You'll also find the latest information on artificial sweeteners, and what you may want

to take into account before reaching for those familiar blue, yellow and pink packets. Finally, we explore how therapies once considered well out of the mainstream—meditation, vitamin supplements, tai chi, to name a few—have now been integrated into traditional treatment plans.

Refresh, renew and enjoy the spring! Daniel R. Jasper, MD





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Integrative Medicine Goes Mainstream

The signs are everywhere: Johns Hopkins Center for Complementary and Alternative Medicine, Integrative Medicine Service at Memorial Sloan-Kettering. From skeptical beginnings to a welcome embrace at the country's top medical centers, integrative medicine has come of age. This blend of conventional, complementary and alternative methods to facilitate healing is now firmly positioned alongside traditional treatments.

The rise of integrative medicine is very much a "back to the future" scenario. In the early 1900s American healthcare included a mix of botanical healers, midwives and homeopaths. In the 1950s, medical breakthroughs in antiseptic techniques, anesthesia, surgery and antibiotics became widely used, pre-empting these earlier techniques. Longer lifespans, and with them, chronic, degenerative diseases, spurred the need for expanded treatment. One result was that healthcare costs began to escalate. In response, over the years, several movements began to emerge which brought heightened awareness to non-traditional medical options. Key milestones included New York Times well-known writer James Reston crediting acupuncture with relieving post-operative pain during his 1971 trip to China; the Beatles placing Transcendental Meditation on the world stage; and an increasing interest in the healthcare practices of Native Americans and Hispanic-Americans who treated illness with herbs and natural substances

Holistic medical clinics emerged in the 1980s, emphasizing the spiritual, psychological and ecological dimensions of healing. In 1992, the official seal of legitimacy was achieved with the establishment of the Office of Alternative Medicine at the National Institutes of Health later known as the National Center for Complementary and Alternative Medicine. In 2007, four out of ten adults surveyed by the Centers for Disease Control and Prevention reported using integrative therapy at least once in the past year. According to the American Cancer Society, 60 percent of cancer patients and survivors reported therapies such as relaxation, faith and spiritual healing, nutritional supplements and vitamins. **Be aware:** the U.S. FDA does not determine the purity, potency or efficacy of dietary supplements before they are marketed. Please consult with my office.

By 2011, more than 42 percent of hospitals in the country offered integrative medicine services, according to the American Hospital Association (AHA), in response to patient demand and clinical effectiveness. This number is rising annually. "It is about using all of the art and science of medicine to restore the patient as fully as possible," remarked the AHA's Nancy Foster.

Integrative medicine continues to infiltrate the mainstream in a number of important categories, including:*

• **Mind-body interventions:** Tai chi (an ancient Chinese martial art that uses movement, meditation and breathing to improve health and well-being), yoga, prayer, and art, music or dance therapies. Johns Hopkins researchers recently found "mindful" meditation had the same effect on improving some depressions as antidepressants.

• **Biologically-based therapies:** Substances found in nature, such as herbs and vitamins. Some have already made their way into conventional medicine, such as folic acid as part of a pre-natal vitamin regime, and zinc to slow the progression of age-related macular degeneration.

• **Body-based and movement therapies:** Qi gong (a series of movement and breathing



techniques); Reiki (a type of healing massage); and therapeutic touch.

If you are considering integrative medicine, discuss the treatment with your physician. **Source: University of California-Davis*

Alternatively Speaking

There is varied terminology used to describe non-traditional medicine, including:

• **Integrative medicine:** The use of conventional and alternative methods to facilitate the body's innate healing response; a philosophy that neither rejects conventional medicine nor accepts alternative therapies uncritically, according to early pioneer Dr. Andrew Weil, credited with starting America's alternative health movement.

• **Complementary therapy:** A service added to conventional or traditional treatments that may ease side effects or provide physical or mental benefits, such as using biofeedback to ease a patient's discomfort following surgery.

• Alternative therapy: A non-mainstream approach that is used in place of traditional treatments, such as using a special diet to treat rheumatoid arthritis.

• **Proven therapies:** Traditional or standard treatments researched, tested and approved by the Food and Drug Administration (FDA).

Nutrition Corner

The Sweet Life: Artificial Sweeteners vs. Sugar

When you reach for the artificial sweetener, do you pick the pink, nab a yellow, prefer the blue or go green? The difference may be less important than you think.

Each of the sweeteners contains a different FDA-approved main ingredient. For example, Sweet 'N Low contains saccharin, aspartame is in NutraSweet and Equal, neotame and sucralose in Splenda and stevia is in Truvia. All promise fewer calories and more sweetness than natural sugar (16 calories per teaspoon), making it a seemingly ideal choice for those who want to lower their caloric intake. Substituting one zero-calorie soft drink daily for regular soda (150 calories) can save 4,500 calories a month—a potential weight loss of one pound.

The downside: safety and health concerns have been swirling around for decades. Beginning in the 1970s, saccharin was linked to bladder cancer in rats, however, subsequent studies did not find evidence of the same effect in humans. Aspartame was scrutinized as a potential carcinogen, and sucralose was reported to potentially wipe out beneficial bacteria in the intestinal tract. Additionally, respected research showed daily consumption of any type of diet drink linked to increased risk of type 2 diabetes. Even the more natural stevia, made from the leaves of a South American shrub, has come under fire for being processed and blended with additives.

Dr. David Ludwig, obesity specialist at Boston Children's Hospital, discourages use of artificial sweeteners, saying they overstimulate sugar receptors and induce cravings for more sweet food. Artificial sweeteners are 200 to 600 times sweeter than sugar, and can distort taste preferences, making foods like a juicy apple seem not sweet-tasting.



In 2012, the American Heart Association and American Diabetes Association, made a some-

what guarded endorsement. "While they are not magic bullets, smart use of non-nutritive sweeteners could help you reduce added sugars in your diet, therefore lowering the number of calories you eat."

The caution: "Research, to date, is inconclusive on whether using nonnutritive sweeteners to displace caloric sweeteners can reduce carbohydrate intake, calorie intake or body weight, benefit appetite or lower other risk factors associated with diabetes and heart disease *in the long run.*"

There are also natural sweeteners such as agave nectar, barley malt, xylitol and birch syrup which the Institute for Integrative Nutrition says are generally considered safer than processed white sugar and artificial sweeteners, and create fewer fluctuations in blood sugar levels, when used in moderation.

The best solution: reduce your intake of both processed sugar and artificial sweeteners by retraining your taste buds with a healthier diet, advises Harvard School of Public Health. Quench your thirst with water, plain or bubbly; opt for unsweetened teas, plain yogurt and unflavored oatmeal. It may surprise you to see how little sugar you need to add to satisfy your sweet tooth.