



National Wellness Institute Members

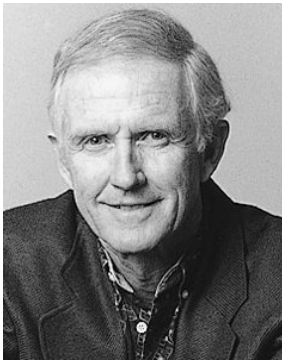
Ask the EXPERTS

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on... Promoting Physical Fitness

Meet the Panel of Experts on Physical Fitness



Donald B. Ardell, PhD

Donald B. Ardell, PhD is the author of the best-seller *High Level Wellness: An Alternative to Doctors, Drugs and Disease* (Rodale, 1977, Bantam 1979 and Ten Speed Press 1986), a book credited with starting the wellness movement. Since 1984, he has written many books on personal responsibility, critical thinking, resiliency for business success and his three favorite topics associated with meaning and purpose, namely, politics/sex and religion! Don has been presenting at National Wellness Conferences for years. In fact, Don was giving talks at National Wellness Conferences before there was a national wellness conference or National Wellness Institute.

Don is best known for his talks on wellness throughout the U.S., Canada and Australia, as well as ten other countries. Since 1984, he has produced a quarterly newsletter called the ARDELL WELLNESS REPORT (73 editions of the AWR are in print; approximately 400 weekly electronic or E-AWR supplements have also been distributed) in which his favorite wellness themes are related to current events.

Don manages the largest wellness website in this country, where well over a thousand essays in 16 skill areas are archived. The web address is <http://www.seekwellness.com/wellness>. Still fast at 68 (18 minutes for a 5K), Don has won numerous national and world titles in both triathlon and duathlon in recent years. Last year, he took bronze medals (third place) in both the world duathlon (Newcastle, AUS) and world triathlon (Honolulu) championships.

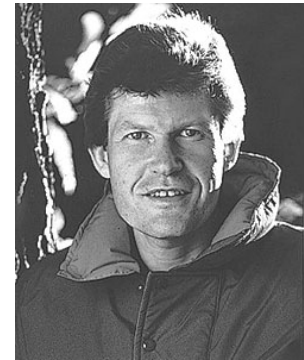


Barbara Harris, MA

Barbara Harris, former Executive VP, Editorial Director of Weider Publications' Active Lifestyle Group, served as SHAPE's editor in chief for 15 years and now is Editorial Advisor to SHAPE, NATURAL HEALTH and FIT PREGNANCY magazines. During her leadership SHAPE won over 60 editorial and art awards and has launched several magazine spin-offs including FIT PREGNANCY. SHAPE's current circulation is 1.6 million, and is the category leader in women's healthy lifestyle publications. FIT PREGNANCY'S current circulation is over 500,000. It is the category leader in pregnancy and pre-natal publications on newsstands and has won over 30 editorial and art awards. Barbara is currently enrolled in the M.Div. program at the Pacific School of Religion at Berkeley, is advisor to the California Governor's Council on Physical Fitness and Sports and past chair of the Board of Directors for the American Council on Exercise and currently serves as an advisor to the UCLA Fitness Certificate Program.

Barbara is an avid adventurer, hiker, climber and nature photographer. She has summited over 20,000-foot Hunai Potosi in the Bolivian Andes, has twice summited Mt Rainier and welcomed in the new millennium in the Serengeti after climbing to the roof of Africa, 20,000-foot Mt Kilimanjaro.

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Robert Sweetgall, BChE

Robert Sweetgall has walked and run across America a total of seven times, and is the only person to have walked through all 50 states in 365 straight days (31 miles a day for a year). Author of 17 books on walking, wellness and active living, Robert has worked with over one million people, live and in workshops, retreats, seminars, and clinics. In his former life, Robert was an overweight Brooklyn boy, nicknamed Butterball, a chocolate cheesecake lover and high school valedictorian, Dupont Chemical engineer and ultra-marathoner. Motivated by a family history of heart disease, Robert gave up the cheesecake and his \$50,000 Dupont career job, to walk the talk across America. Now, years later, Robert lives on Little Ski Hill in McCall, Idaho where he snowshoes, cross-country skis, hikes & hunts big rocks (for landscaping) and forays for herbs with Darcy, his herbalist wife, and with his activity-loving dog, Baaza. As President of Creative Walking, Inc. (www.creativewalking.com) Robert stills tours the country, helping organizations motivate their people toward more active lifestyles. rob@creativewalking.com 1.888.421.9255

Special Note to NWI Members

Physical Fitness is essential to staying happy, healthy, and well. A special thank you to Donald B. Ardell, PhD, Barbara Harris, and Robert Sweetgall for participating in this panel and sharing your expertise on promoting physical fitness.

Thank you to all the NWI members who submitted the great questions, which created the informative discussion that follows. If you are interested in further speaking with the panelist on their physical fitness expertise, please contact them directly.

Laura Bilderback
Member Services Team Leader
National Wellness Institute

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POSITION STATEMENTS ON PHYSICAL FITNESS

Donald B. Ardell:

Making and sustaining a commitment to become and remain highly fit throughout all stages of life is one of the foundation elements of a wellness mindset and attendant lifestyle. Exceptional fitness has endurance, strength, flexibility, stability and agility components. Like the larger challenge of a wellness lifestyle, the fitness dimension requires a level of discipline on a daily basis that most, to date, do not exhibit. The reasons are complex and interrelated, including but not limited to cultures and sub-cultures, public policies, the medical and insurance systems and genetics. Consequently, nearly three-quarters of the population are not fit, in fact, they're

fat. A third are more than fat -- they are obese. It's a sorry situation -- and the NWI, with its big picture focus on fitness in a wellness context, should engage its membership in a grand search for new and innovative ways (i.e., policies and programs) to address the problems of an unfit, unwell society.

Barbara S. Harris:

Our most powerful agent for change is the unwavering belief in the possibility of a better world. Our greatest responsibility as professionals is to never give up on our mission or the possibility of individual and collective change. We must continue to pour our minds, hearts and souls into this visioning of a healthier America. Hundreds of solutions for a healthier lifestyle work for a myriad of individuals. We must focus on sharing the many solutions with each other and the world community, and keep our eyes and hearts focused on creating a healthier world, one person at a time. We will materialize whatever we collectively envision. Together, let us keep the lanterns of our common dream lit.

Robert Sweetgall:

Rapidly, in just three decades, we have become a low-movement society. It shows in our waistlines, our bones, our blood pressure and blood sugar levels, our stress levels, our children -- and our healthcare system, which is more interested in pills and premiums than fresh-air activity. The real remedy to this problem is rather simple: **GOYA ASMA** (the acronym for **Get Off Your A__ And Start Moving Around**). Fortunately, as you will discover on www.goyaasma.com 200 million sedentary Americans need not become fitness fanatics. The research from both Paffenbarger's *Harvard Alumni Study* and Blair's *Dallas Aerobics Center Study* clearly show that sedentary people get significant chronic disease risk reduction by **adding just a mile a day** of walking (or any equivalent aerobic activity) to their lives. Yes - just a mile! That's 17 minutes or 2,000 extra footsteps on your pedometer. Now, don't get too excited; 17 minutes will not transform you into an Olympian. But it is a start -- a doable start ... and we have to start somewhere; otherwise our nation will keep slipping and self-destruct physically and financially from ill health. If you doubt it, just look at our children -- the first generation in America's history forecasted to live shorter lives than their parents. What a legacy we leave them in our *No-Child-Left-Behind* society.

PERSONAL

Q1 What are your views and thoughts on the history, changes over time, and future predictions in promoting physical activity?

Ardell: My first thought is "Could I adequately address these questions in one book, or would a decent, interesting response require a trilogy of publications, perhaps with supplemental learning guides added to the mix?" Since we panelists have been directed to respond to each question within the space of a paragraph, answering this first query to the satisfaction of the sender is going to be a bit difficult. However, I can address the last part of the question about "future predictions for the promotion of physical activity "with confidence by quoting Yogi Berra: "Prediction is very difficult, especially if it's about the future."

As to the history and changes over time in promoting physical activity, let me offer this note: There are greater numbers of professionals promoting exercise than in the past but to little or no avail. The changes in American population fitness status have NOT been for the good, especially in the last few decades. The population, as a whole, moves less and weighs more than ever before. The direction of change is akin to Aaron Wildavsky's phrase about the political pathology of health: "We are doing better (i.e., talking more about the problem of insufficient activity) and feeling worse" (getting fatter and sicker while spending more on illnesses than need not have developed).

Harris: As a nation and as a world, we are in desperate need of healing our planet and individual health. We can create workable solutions if we are committed. We must simply become clear on what is truly important to us. What is more important than our health and the health of our planet? Holistic physician, Christiane Northrop, M.D., says a mere shift in thinking can be the single most important action to save our health. A new and genuine commitment to individual and planetary health and well-being could redirect our perilous, unhealthy path as a nation to one toward wellness. We must have a compassionate, committed community model that government, business, healthcare and civic institutions

embrace: Learning to live healthfully through holistic health and well-being education, the foundation of a universal healthcare model, is not a privilege but an individual right. Just as people should be fed, clothed and provided safe, clean drinking water, children and families must be educated and supported in living healthfully with wellness education and active, sustainable lifestyles supported at schools, work and within communities. The revival of community centers is a possible and timely model for revitalizing our communities and teaching the masses simple, progressive and incremental changes to help our bodies, minds and spirits thrive, while nurturing the health of our planet. Our churches and other civic institutions must also become partners for helping individuals live better. It makes good economic sense: The healthy, thriving individual is more productive. And it is a humanistic issue. The healthy, physically active and socially and emotionally connected and cared for person is best able to live their mission and contribute to the world. Regardless of race, income or socio-economic level, all persons will benefit from investment in holistic education with community at the center of this model. People cannot heal alone, but they can heal, be well and thrive in community.

Sweetgall: (a) Looking into my crystal ball, I am most pessimistic in the short-term (2006 through the end of this decade) as I see a continuing negative trends in rising healthcare costs, excessive medications, meaningless diet stupidity, children's obesity, patient frustration in the healthcare system, and worst of all, sedentary living.

However, in the long-term (2010 and beyond) I am more optimistic only because our survival as a society will depend on a massive transformation in lifestyle. By this I mean a lot of people doing modest simple lifestyle changes. As an example, take education in America. Right now it's costing close to \$15,000 per year for health insurance premiums for schoolteachers in southeastern Wisconsin districts. Worse yet, this cost is doubling every

eight years, and is forecasted to hit \$80,000 per employee by the year 2024. How can any society afford to educate its children when it costs \$80,000 per year to insure one school employee?

Giving North Americans some credit for survival instincts and eventually coming to their senses, I think we will hit rock bottom sometime in the years ahead. Then, maybe some genius school administrator will figure out that it doesn't cost much to blow a whistle at every school, everyday, and send every teacher and student and school employee outside for a 15-minute brain-oxygenating, stress-reducing walk. Because if we don't do something to reverse the lopsided emphasis on *No-Child-Left-Behind* test scores in our schools, we'll be leaving all children behind - healthwise.

Q2 Please give advice on how you keep the energy and drive to stay healthy and fit?

Ardell: The discipline to do what is required is fueled daily by enlightened self-interest. Sustaining fitness and overall health is simply a matter of self-indulgence. It is reinforced constantly by a conscious recognition of multiple positive and negative consequences of doing so or not doing so, respectively. The negative consequences of not becoming and staying fit and healthy are too obvious to mention here; the positive reinforcements are too little appreciated because they have rarely if ever been enjoyed, as adults, by a substantial majority of the population.

Need I be more specific on the positives? Is there anyone who does NOT know the payoffs of a wellness lifestyle? I have never tried to quantify these payoffs (i.e., ROI, pleasures, satisfactions, joys, delights, smug little chuckles and so on) but let me summarize with my trademark claims, based upon imaginary double-blind, crossover trials of a longitudinal, horizontal, vertical and dignified basis: The energy and drive for staying fit and healthy is

sustained by evidence, not faith-based knowledge, that wellness is fun, romantic and hip, sexy and free. That people living wellness lifestyles are warmer in winter, cooler in summer and sleep better all year-round. That they are stronger and better-looking, have higher morale, superior bowel movements and more antibodies to resist disease. If YOU stay fit and healthy, you will be wildly popular, your insurance rate will go down, you'll become tax-exempt and you'll get better gas mileage.

If this advice does not do the trick for someone, then there is no hope.

Come to think of it, that is exactly what I believe is the case for most people, as I'll discuss in responding to a few additional questions put to this panel.

Harris: I am blessed because I love being physically active. Just like a dog that cannot wait for the morning walk, there is nothing I enjoy more than moving my body: My regular fitness routine is strength training at the gym two to three days a week, yoga a couple times a month and daily walking near my home in Northern California. While I've been active life long, played sports throughout childhood and young adulthood, it wasn't until moving to California 20 years ago and going out into nature, deep into the wilderness, that I awakened to a new world within and outside. I found that "wilderness is necessity," as spoken of by John Muir, and that "going to the mountains is going home." For me, hiking, rock climbing or high-altitude mountaineering in the wilderness is both beautiful and divine. There is nowhere else I'd rather be and nowhere that I feel more fully alive. It is also among what I most deeply desire to share with others - moving our bodies for the purpose of feeling fully alive, which is what we may seek most - Joseph Campbell, scholar on myth told journalist Bill Moyers in an interview, "what we're seeking (more than meaning) is an experience of being alive..."

Sweetgall: Personally, staying healthy and fit is a way of life for me. It all revolves around a lifelong plan of staying active by doing the activities that are enjoyable, safe and sustainable for life. My activity patterns have changed over my lifetime. Decades ago I was heavily engaged in ultra-marathoning. Now, I don't care if I ever run another mile in my life. I'm into walking, hiking, rock landscaping, gardening, core-muscle strengthening, snowshoeing, cross-country skiing, Exerstriding/Nordic Walking (with poles), and snow shoveling (as I live on a ski mountain in Idaho). The two consistent threads that keep me on target over the past decades are a) keeping a simple daily journal of all my physical activities and b) my core value of love of movement and the great physical, emotional, intellectual and social benefits that physical activity brings me.

Q3 Question for Don: I want to know if you're optimistic. Politicians now equate great health care reform with giving more drug benefits to seniors. Doctors continue to write goofy diet books (flavor rotation, Paleolithic eating, wine country diets). People are fatter and more deconditioned than ever. Has wellness become the robust national phenomenon that you wrote about and hoped for thirty years ago?

Ardell: Two questions lurk in the above editorial: 1) Am I optimistic? 2) Has wellness turned out as I hoped in the beginning, when first there was light and my book "High Level Wellness: An Alternative To Doctors, Drugs And Disease" was cast upon the waters by Rodale Press (1976)?

No and no.

A proper response requires a summary of how I described wellness in 1976. Ever so briefly, it was depicted as a choice to assume responsibility, a conscious decision to shape a healthy lifestyle. It was expressed as a mindset for a high quality life, a predisposition to master

key principles in varied skill areas (e.g., critical thinking, finding plentiful meaning and purpose) -- leading to high levels of well-being and life satisfaction. A wellness outlook or perspective would protect against temptations to blame, make excuses, shirk accountability, whine or wet your pants in the face of adversity. (I just threw that in to help you remember this explanation.) It was suggested that wellness is an alternative to dependency on doctors and drugs, to complacency, to mediocrity and to self-pity, boredom and slothfulness.

Contrast these expressions with today's common usage of the term. Nothing robust is seen in the situation thirty years down the road from what I had in mind in 1976 -- or now. However, as Parkinson observed, "the future lies ahead."

STRENGTHENING

Q4 a) Exactly how many calories does a pound of muscle burn vs. a pound of fat? b) I have read that during weight loss, less muscle is lost if one is exercising and reducing calories vs. only reducing calories. Do you have any specifics about muscle loss with caloric restriction? I know there will be many variables involved.

Harris: a) Estimates vary from as low as 10-30 calories burned (per day) for each pound of muscle up to 35-50 calories burned per pound of muscle versus fat tissue which is relatively metabolically inactive (burning 0-4 calories).

b) Research conducted at Tufts University has shown that when women diet (alone without exercise), at least 25-30 percent of the weight they lose isn't fat, but water, muscle, bone and other lean tissue. This is true regardless of how much protein and calcium they take in (according to Miriam E. Nelson, Ph.D. and Sarah Wernick, Ph.D. in *Strong Women Stay Slim*, Bantam, 1998). Nelson and Wernick also

report that seven well-controlled studies showed that losing weight when dieting (without exercise) resulted in bone loss, too. (In three months, women who dieted for three months while following a sensible food plan designed for modest weight loss, losing an average of 7.5 pounds, also lost one percent of their bone mass.) Conversely, strength training can preserve muscle when women are losing weight, and it may help prevent bone loss as well.

It is also clear that drastic caloric reduction (even if someone is exercising) results in a slowed metabolism and loss of lean tissue. Modest caloric restriction, cutting 250 calories per day, is what is generally recommended when a person is striving to reduce fat by combining diet and exercise. Reducing calories further than that may be ineffective. Even when cutting calories, any new healthy eating program should allow for favorite foods, help the individual regularly make the best food choices from whatever is available and be based primarily on an intake of mostly healthy whole foods. The most well documented healthy diets are the plant-based diets of the Mediterranean and Okinawa (like the Mediterranean diet but prolific in sweet potatoes and soy). And why recommend “dieting” at all? Why not engage people in learning new ways to fuel their bodies so they will have more energy, continue to experience the pleasure of eating and thriving, inching toward a mostly whole foods, plant-centered diet while discovering the joy of moving their bodies more? I recommend a diet of people loving and caring for their bodies and the earth (supporting sustainable food practices).

Q5 How long does it take to gain a pound of muscle and see a 2-5% change in body fat? How long does it take to lose an inch or two on the waist?

Harris: Dramatic changes *have been shown to occur* in as little as eight to ten weeks. Wayne Westcott, Ph.D., fitness research director of the

South Shore YMCA in Quincy, MA has found that women who did three weight and cardio sessions a week for 10 weeks dropped an average of four pounds of fat and gained 3 pounds of muscle. The strength (three sessions per week), cardio (building up to 30 minute sessions three to six days per week) and healthy eating plan (usually 1600-2000 calories/day) in *Strong Women Stay Slim* have resulted in a half-pound to two-pound weight loss per week for women participants. Simple walking exercise has been shown to be best for decreasing deep abdominal fat (which increases diabetes risk and threatens cardiovascular health).

While these changes are possible, what’s likely for your population? It’s hard to predict, particularly if diet is not controlled. During a March, 2006 presentation at the annual IHRSA (International Health, Racquet and Sports Club Association) conference, Glenn Gaesser, Ph.D., said that when it comes to weight loss plans and expectations of results, *One Size Does Not Fit All: (There’s a need for) Plan B Approaches to Weight Control*. Gaesser’s findings showed a steady increase in obesity that parallels a steady increase in dieting from the 1960s to the 1990s. He said what we already know: “*Dieting doesn’t work!*” Also, the *calories in versus calories out model* may be overly simplistic.

Not only may there be many associated inaccuracies when measuring both intake and expenditure, the model fails to account for individual biological variability (also shown in twin studies done by Claude Bouchard, Ph.D. and others, that there is a much wider range of differences in weight loss between sets of twins than within sets of twins on similar caloric deficiencies), and metabolic “constants” come into question. For example, does burning an extra 3500 calories always result in losing a pound of fat? A person may have a metabolism that is hyper-efficient, one that “preserves calories,” while another is a fidgeter and hyperactive, moves more spontaneously throughout the day, thus burning more calories. The fidgeter may lose more than the hyper-

efficient even if the two are prescribed programs of the same exercise calorie burn.

Gaesser presented several related studies. Women following an exercise program experienced no net change in weight loss (who were also asked to not change their diets). Looking more closely at the data showing no net weight loss for the total number of participants, there was a range of 0 to 8 pounds lost or gained in the exercisers. Both those that lost and those that gained weight improved aerobic capacity by 12%, improved glucose sensitivity and HDL-cholesterol.

Bottomline: All participants realized health benefits regardless of weight (fat) changes. Other factors, like food intake, may need to be closely monitored to better understand why differences in weight loss occurred; metabolic “constants” and assumptions may need to be more fully explored, such as spontaneous activity. Gaesser also showed the type of food intake does seem to affect body composition. A summary (meta-analysis, NHANES II and III and CSF II 1994-1996) of the data overwhelmingly shows lower body weights (five to ten pounds lighter and lower body fats) and better overall health are associated with low-fat, high carbohydrate intakes.

People expect exercise to help them lose weight. For some, the best it may do in that area is to help prevent weight gain or to blunt how much they gain. Isn't that positive? And what about all of the other benefits?

Sweetgall: The answers to these questions vary significantly for different people depending on body type and routines. The more important issue is developing an active lifestyle -- gradually, long-term, consistently over a full lifetime. Then the body composition, muscle and “inches” will all fall into place as a by-product of one's active lifestyle -- assuming one eats frugally without adopting the misdirected attitude: “*I exercise so I can eat more.*”

Q6 Too many men and women rely on the scale to measure fitness status. How can we help more American's rely less on the scale and more on other factors?

Ardell: We can tell Americans to get rid of their scales and other useless measures that do more harm than good.

The “other factors” are principles to learn and adapt into daily life in the multiple skill areas that constitute the wellness concept (exceptional fitness, critical thinking, emotional intelligence, meaning and purpose and so on.

Harris: When *Shape* began the weight loss diary column (documenting one reader's weight loss journey over the course of a year), the person's diary included measurements of body composition, aerobic capacity (sub-max VO₂ estimate), total and HDL-cholesterol and blood pressure in an effort to help the readers see weight loss in the context of other health and fitness parameters. I think it's also worthwhile to have people track their energy, stress, the quality of their sleep, how they feel about their bodies (body image) and quality of life. All of these measures are likely to improve as people exercise, and it's worthwhile to have participants note them as well as logging their fitness progress, too, such as able to walk farther or for longer or with greater ease. Also, I would recommend that personal trainers and fitness professionals administer a wellness inventory along with health screening to new clients to emphasize wellness and not just fitness. To move that process forward, I would encourage more collaboration among fitness and wellness associations, like NWI with ACE (American Council on Exercise) and IDEA (Health and Fitness Association).

I also think we need to redirect the focus in our fitness and wellness programs from weight loss to vitality, while also continuing to give the message that exercise improves health and well-being. Although most individuals beginning an

exercise program expect exercise to aid in weight control, that may or may not happen. What keeps people exercising? Feeling better. Exercise can't be like medicine. As reported by Dean Ornish in *Love, Medicine & Survival*, even when exercise is prescribed to post-operative cardiac patients at risk of death, the threat of death is not enough to get some to comply. Miserable people don't want to live longer. Helping people love their lives may be the best motivator for living healthfully.

Sweetgall: The better predictor of one's health is not weight, but rather one's current level of physical activity. Hence, in all our wellness program promotions, we need to encourage **active living** instead of **weight loss**. It wouldn't hurt to stop using pictures of super-thin anorexic jock figures on posters and brochures either. Unfortunately, our biggest enemy is the media, which is fixated on weight, diets, infomercials and whatever sells to get ratings.

Q7 What sources are recommended for camera ready/print ready strength and stretching education handouts? People really like pictures to learn proper strength training exercisers for the upper body, lower body, and mid-section.

Harris: You can regularly request permission to copy exercises provided in every issue of *Shape*. (Also go to www.shape.com.) Though the target demographic is women 18-34, most of the exercises can work for women of all ages, and every issue includes suggestions for how to do gym exercises at home.

I would also recommend for all women *Strong Women Stay Slim* by Miriam Nelson, Ph.D. with Sarah Wernick, Ph.D., *Strong Women, Strong Bones* (by the same authors) and the associated website (www.strongwomen.com); and the B.E.S.T. book (from University of Arizona's Center for Physical Activity) for a strength training and nutrition program to prevent osteoporosis; and *Fit in 15*, by Steven Stiefel for

short but solid workouts, and all of them can be done at home.

Sweetgall: Research shows the more exercise routines you give people the less they will do and stay with. So to keep things simple and focused, I promote the single-most important core-muscle strengthening routine: The Hip Circuit. Reference: *The Stretch for Strength* book by Pat Zak, PT and Robert Sweetgall (with accompanying tubing system; see www.creativewalking.com). I have found the four core-muscle strengthening exercises for the hip flexors, hip extensors, hip adductors and hip abductors unbelievably invaluable for anyone in their early, mid or later years, and especially valuable for people with low-back/sciatica issues, balance problems and even athletes looking for improved sports performance in any sport. The beauty of this program is that a 3-minute workout (5 to 15 reps for each muscle-group previously mentioned) improves one's entire balance and core strength. That is why I take my tubing on the road. It is like having a home gym in your hotel room.

Q8 What practical strength improvements are recommendations for different age groups? Home ideas? Traveling tips?
young adult college students
women in mid life (40's and 50's)
men in mid life
seniors

Harris: Practically speaking, make training fun, safe and challenging and the right fit for the individual. Anybody at any age can do any exercise, provided there are no health (and joint) limitations.

The fundamental principles of designing a resistance training program for older and younger persons, male and female, are basically the same, but, as you would expect, there are some additional concerns when working with special populations, such as seniors and persons with limited abilities. Since balance is often

compromised, seated or machine-based exercise may be best. For all, focusing on complex (multi-joint) exercises deliver the most benefit in the shortest time. Focus on technique when someone is learning, regardless of age. It ensures best results and helps prevent injury. Since older individuals may recover more slowly, they will need more time between more vigorous sessions. While a younger person may tolerate three vigorous sessions per week, an older person may do best with one, and the program must be appropriate for current levels of fitness.

To be safe, issues regarding preexisting medical ailments, exercise progression, and nutritional status should be evaluated for all persons before prescribing a resistance training program. Regardless of age and perceived health, a complete medical history and risk-factor questionnaire should be administered (including the PAR-Q, participation readiness questionnaire from the Canadian Society of Exercise Physiology) and programs should be designed with medical clearance as necessary and consideration of apparent health concerns/conditions.

Aging does not appear to enhance or reduce the ability of the musculoskeletal system to adapt to resistance exercise. If the training stimulus is adequate, strength gains in older adults are similar to or greater than those in younger individuals. Previously sedentary older men and women have more than doubled knee extensor strength (leg extensions, strength of the quadriceps) and more than tripled knee flexor (leg curls, strength of the hamstrings). In one study 87-96 year-olds improved muscle strength with only eight weeks of training. In one 12-month study of women (average age 59 +/- .9 years) subjects gained strength throughout the year-long study period.

The only difference between training programs for men and women is generally the amount of resistance applied during a given exercise. Women generally increase their strength at the

same rate or faster than men. Short-term muscle hypertrophy (increase in size) is similar for men and women, though men will generally continue to increase in strength and cross-sectional muscle size for longer periods, whereas women's gains will flatten sooner (due to women generally having lower levels of the hormone testosterone, but there are exceptions).

Reasonable progression and appropriate exercise selection are more related to the appropriate and desirable intensity, total volume and type of training for the individual. Most older, sedentary individuals may benefit most from achieving functional fitness and beginning a total body machine-based circuit of exercises (to ensure balance and reducing risk of falling). If an individual does not have health limitations, the most desirable type and level of training is what the individual can safely execute. If a senior has good balance and moderate to high baseline strength, a free-weight program may work well. One 61 year-old woman in University of Arizona's BEST program, who had previously never weight trained, was leg-pressing over 400 pounds after a few years of training.

Some tips on program design: Anyone who is healthy and does not have joint or other movement limitations, is capable of safely lifting any weight they can move 10 times and is capable of doing any exercise, such as squats (which can be initially modified as quarter- or half-squats), lunges (stationary, or split lunge done with no weight, holding onto a chair, gradually progressing to holding dumbbells), leg presses and more. Some exercises, however, like squats, may be less desirable for people with long levers (who have a long femur bone), so exercise selection and program design always needs to be individualized. Generally speaking, focus first on functional training of the big muscles (butt, thighs, hamstrings, latissimus dorsi, shoulders, abdominals, erector spinae) and core strength development, and progress from there. Rather than age considerations, the major factor beyond health limitations (and

associated preexisting medical conditions) to consider when designing programs are current strength and overall fitness status, an individual's preference – to train at home or at a gym, the preferred type or best match of equipment (free weights or machine-based), and frequency of sessions per week. For health and functional fitness, two weekly total body sessions of mostly compound (multi-joint exercises) is recommended. While always ensuring someone safely exercises and progresses slowly, it is important not to limit what someone can do or how they can train by stigmatizing someone who is older and/or less fit. Someone who is 65 may want to take up power lifting or train to compete in the Senior Olympics.

Home exercise can be as effective as gym training. Progress is related to overloading a muscle and the equipment purchased should appropriately challenge a person's strength. For a woman who is beginning a strength program the most basic investment is a limited range of dumbbells, sets of 2, 5, 8, 10 and 15 pounds, gradually adding 20, 25 and 30-pound sets. Full barbell sets, up to 110 pounds, is another option. Exercise balls and resistance bands of varying levels made by many manufacturers, such as SPRI Products, Inc. (spriproducts.com), plus a few balance tools, such as a Bosu Balance Trainer (bosu.com) and balance discs and balance boards (exertools.com) are also useful equipment to expand the challenge and benefits of home training.

Sweetgall: Core-muscle strengthening as described in my answer to Q7.

WORKSITE

Q9 Please tell us your thoughts on the use of incentives to improve the health behaviors of employees in the workplace.

Ardell: This issue always raises basic questions about responsibility and choice, such as "Whose fault is it if you're a chain-smoking alcohol abuser who eats to excess while ignoring exercise? Personally, I'd say "Yours" but wise folks in the wellness field argue that the matter is more complex and make a case for other variables being considered. Increasingly, scientific evidence (and what other kind is there?) suggests that none of us is able to completely choose freely and rationally. That is, we don't have unfettered "free will." It's a scary thought for wellness promoters who place self-responsibility in the forefront of foundation elements for shaping a good and worthy lifestyle.

What is required to act (or choose) freely? What is required to be morally responsible for one's actions (or choices)? We should understand "determinism," the view that everything that happens is necessitated by what has already gone before (or nothing can happen otherwise than it does). For some, there is the notion about a "ghost-in-the-machine," murkiness about brain activity introduced by superstition.

Researchers who study the issue from varied perspectives, particularly genetics, neuroscience and behavioral psychology, challenge the extent to which we author our choices and actions, which is how most people think of free will.

These discussions often involve the morality of public policies based on our assumptions about causation, such as capital punishment or, in our case, incentives for worksite wellness.

Science-based studies increasingly lead to the conclusion that consciousness, character, desire and rationality--all vital elements in the dynamic of wellness lifestyles, are overwhelmingly shaped (determined) by biological and environmental influences and their interactions. Science seems to be telling us to forget about yanking up bootstraps or expecting too much from good old critical thinking - these have little traction on the controlling "brain-body control

system." Instead, get used to the idea that environment (meaning culture and all kinds of social factors) and heredity trump volition, as well as freedom, dignity and moral agency, as motivators. We are overwhelmingly caused by our biology and environment, meaning we are not the cause of our actions or fate. This is not the kind of perspective associated with modern wellness advocacy, or libertarian, Cartesian, interventionist, free will perspectives. Biological, familial, and social processes rule, say the scientists. We wellites want to believe rationality shapes our characters, controls our motives and selects our behaviors (all based upon intentions grounded in the meanings and purposes we have adopted), but science supports little of that.

This causality-driven view, if adopted widely, should change the way we approach treatment, prevention, health promotion and wellness.

Why offer worksite incentives for personal weight loss, smoking cessation and all the rest if people don't have the free will capacity to change their lifestyles? Instead, won't it make more sense to emphasize cultural reinforcements for desired outcomes? This is what the late Robert Allen, and more recently his son Judd Allen, advocate under the banners of "shared visions, a positive outlook and a sense of community." If beliefs about the power of free will for choosing lifestyles are abandoned in wellness promotion, we will want to devote more attention to the broader, innate determinants of worseness or dreadful lifestyles--and interventions to modify them.

Bob Ludlow, the philosopher photographer of North Carolina, said: "If you ask ten different people what free will is, you'll get ten different muddled answers. It's just another of those vague, feel-good notions from religion that people prefer not to analyze (and get angry if you do). The acquired ability to think, reason and plan on the basis of evidence enables individuals to transcend the limitations of their nature, or even their culture. Rational thought and scientific method are open-ended, almost

unlimited. The power of the human brain, with its capabilities for language and symbolic reasoning, can perform at levels of complexity and unbounded creativity that defy precise understanding. The result may look like free will, but it's not; it emerges from the combination of our biological makeup (heredity) and our learning experiences."

Well, there's something to be said for self-assembling thoughts, I suppose. I hope a few of these thoughts help you to think about incentives, free will, heredity and environment in a wellness context.

Sweetgall: Regarding worksite wellness and incentives, let me share some of the points I covered in a NWI workshop.

- a) Times are changing. The old days of promoting "structured exercise" are least accepted by people who need our programs the most mainly because "structured exercise" requires a block of time, is too threatening and does not seem like fun for many people.
- b) Over the past five years, I have seen a lot more acceptance of "unstructured activity programs" in which people are encouraged to do a variety of activities, anytime, anywhere, any duration, any intensity level, by themselves or with partners.
- c) The modern digital motion-sensing pedometer has been a great feedback tool - but not without its own problems. For example, consider the near-worthless, cheap pedometers so many organizations have given to its members. The one pedometer we have come to rely on in our corporate health promotion programs is the Digi-Walker multi-function pedometer. Multi-function pedometers that give both **mileage** and **step counts** are important because approx 50% of the last 30,000 people I've polled prefer to track **miles** - and the other half prefer **steps**.

d) However, a pedometer by itself is not the answer. People need a real program - including goals, tracking, accountability and flexibility. A one-size fits-all, 10,000 step-a-day program is way too threatening and unachievable for the average American lounge lizard. I suggest letting people do whatever they can do comfortably, with a conscious effort to try to improve on their total activity levels.

e) **Simplicity:** What could be simpler than this? Take three seconds in the morning to put on your pedometer. Take three seconds at night to record your total activity level for the day. In the meantime, do all the activities you love to do and all those little extra activities - and know you're getting credit for everything.

f) **Longevity:** Based on the simplicity explained directly above, *"Is this a program one can stick with for a year or even for life?"* So many organizations lower expectations of their people by promoting 6-week-go-crazy-fitness extravaganzas. Unfortunately, the day you stop wearing your pedometer, that's the first day your activity levels will start to decline. Also, the first day you think it's not important to physically log your daily activity level, that's the first day your physical activity levels will start to decline. Guaranteed!!!

Yet pedometers are not for everyone, but they definitely favor those people who never have and are unlikely to sign up for a fitness class or go exercise on threatening machines at a fitness center or join a conventional structured exercise program. And men, the toughest group to entice into a wellness program, actually love pedometers because they have buttons, batteries, springs, readouts and all kinds of things to mess with.

Case in Point: *One agency in Montana ran a structured exercise/wellness program for 6 straight years, enrolling the same-old 600-700 fitness fanatics. Then, in their seventh year, they broadened the program by giving*

participants pedometer registration kits (with logbooks) - hoping that they could increase participation levels by 100 new employees. But they miscalculated, as over 2,000 "newbies" joined the program (that's a person who never, ever signed up for a wellness program). Interestingly, the original 600-700 hard-core people didn't have a problem with the pedometers, because their structured bouts of exercise were recorded and credited on their pedometers.

g) **The Budget Issue:** If funding is a problem, just ask staff members to pay for a portion (or all) of the pedometer registration kit. They'll feel a stronger commitment this way, anyway. Too many FREE programs are unappreciated.

h) **Incentives:** Used wisely, incentives serve one very important function; they motivate people to track their efforts - and just as importantly, to turn their data in (which gives you program accountability). Personal tracking leads to *personal accountability*. Offering people incentives leads to better *program accountability*.

In my humble opinion, money is a poor incentive prize, because it corrupts the whole purpose of the program. For example, are you doing this program for your health or the money? Money spoils people too, and you can never give enough. Health-redeeming prizes, which actually enhance your life, are less expensive and more appreciated.

Some Other Ideas to Increase Participation...

- Put more men on wellness committees. Many wellness teams are composed of energetic 120-pound women. Put more average and at-risk people on wellness teams to broaden everyone's view and find solutions for the kinds of people who can't relate to a monolithic super-fit committee.
- De-emphasize competitions, which set up a win-lose situation.

- Set the low bar low so the people who can't visualize 10,000 steps-a-day can be encouraged by a reasonable goal. Example: we love **one million steps** or **500 miles** of total activity for the year, which is only about 1.5 miles or 3,500 steps a day. Based on the scientific data by Paffenbarger (Harvard Alumni Study) and Blair (Dallas Aerobics Center Study) even this low level of activity reduces disease risk. Granted, 3 to 5 miles a day is near optimum (2,000 to 3,500 Kcal of activity per week). But it's more important to get the majority moving than to get the minority perfect. Most wellness programs are designed by the fitness elites to attract their own kind, unintentionally.
- Try to get your highest level administrators directly involved in these programs. Try a *Walk with the CEO* program.
- Always be thinking of the next follow-up program. This can be hard when you're running 6-week flash-in-the-pan programs; but if you could re-start your program on an annual basis, that's more doable, especially if you're short-staffed.

Q10 What are the best ways to incorporate physical activity into our wellness programs?

Ardell: During the entire week of the National Wellness Conference in July, 2006 at Stevens Point, nearly fifty wellness professionals immersed in worksite wellness programming in companies, medical settings, insurance firms and as consultants met to devise best ways to do this. "Best way" ideas were entertained throughout the week. Most frequently mentioned were positive and negative incentives (case specific were described in varied parts of the country), leadership involvement, integration of wellness outcomes with company goals and objectives, clear articulation of why companies should even have wellness

programming, factoring in (and reinforcing) employee accountability, the need to ensure whole family participation (as the spouse and kids cost companies more than the employees in terms of utilization of medical benefits), reinforcing responsibility at every opportunity, being clear about limitations (some will never choose healthy lifestyles), promoting common decencies and ensuring that some kind of independent evaluation process is introduced for credibility purposes. For more on best ways to incorporate physical activity into our wellness programs, look to such specialized sources as WELCOA and other associations, including the NWI, that collect and manage data as well as promote the art and science of worksite wellness programming.

Sweetgall: Refer to Answer #9

Q11 How far do you go to "encourage" and promote physical activity to the unmotivated or negative people in your organization, who could benefit from the program most?

Ardell: Just the other day, a *Wall Street Journal* article entitled "Finding Time to Exercise" by Kevin Helliker (June 20, 2005) contained this sensible observation: "...exercise offers a relatively sure-fire and important way to feel successful on even the most frustrating days. Set the bar so low initially as to guarantee success -- 10 minutes a day? -- and recognize that walking and taking the stairs count."

That's good advice, in my opinion. After all, you are responsible for your daily actions but not your limited abilities. Resolve today to be well and always look on the bright side of life, even if you believe that "I can't do it."

Sweetgall: I fully appreciate your concerns for reaching out and engaging the vast majority of apathetic people who resist "physical activity programs" and "exercise" in general. And I do agree this number is in the 70 to 80 % majority category. However, we cannot give up on this

group. We have to encourage physical activity to the sedentary much more than what we are doing today. We have to make every effort to engage these people. Instead, we keep marketing programs to the fit and motivated - the same fanatics who sign up for aerobics classes at 6 am. This explains the low participation rates in employee wellness programs and why healthcare costs keep rising.

A few tips: stop doing all the things that have failed us in the past. For example (a) one-size-fits-all 10,000 step-a-day programs, (b) structured exercise programs in which you only get credit for doing certain bouts of continuous, approved activities, (c) fitness contests in which teams or individuals are rewarded for outstanding performance and (d) all the other things that turn off the people who need just some encouragement to improve their active lifestyles by doing non-threatening things – like Wearing a pedometer or walking a little at lunch.

Q12 What kind of results have you seen when people are required to "track" their physical activity and report it vs. the honor system?

In other words, do you tend to see better long-term results (risk reduction/claims reduction) in individuals who manually track their physical activity or is an honor system sufficient?

Sweetgall: Thank you for touching on my favorite subject - and possibly the most under-rated, under-studied and under-emphasized area of health promotion – **tracking, logging or journaling.**

I get fairly emotional and frustrated with the lack of emphasis people put on “tracking” in our society. Because people who “track”: (a) have a much stronger commitment to their programs; (b) feel a greater sense of pride and accomplishment; (c) see and appreciate trends (d) understand self-improvement and (e) stay on target.

People who think “tracking” or “logging” is a waste of time usually fall off their programs. The day you stop logging your activities, is the first day you will see your activity levels decline.

In all my experiences, I’ve never found a more important lifestyle habit than “logging” that will keep the average person on target for the rest of his or her life. Furthermore, I’ve never seen a person fall off his/ her program, who maintained an activity log.

The honor system on the other hand (and I take this to mean that you just validate that “yes, I’m doing my exercises everyday or whatever” but you really don’t record it formally) does not accomplish the “a, b, c, d, and e” I listed above.

What kills me is how people are willing to say they’ll commit to 30 minutes of physical activity a day; but they can’t find **three seconds** to record that activity, which is how long it takes to write “x” minutes or “y” miles, or “z” steps in one’s logbook. “Logging” is so easy, so simple and so beneficial, that it is by far the best investment of time anyone could ever make. I’ve been “tracking” for 14 straight years. I didn’t think it was that big a deal, until I started doing it. So now I keep a file of people who send me their logs and testimonials of accomplishment.

Techniques: As far as “tracking” is concerned, I recommend keeping it simple, consistent and honest (put in your best estimate without getting stressed out over whether you hiked for 65 minutes or 66 minutes). I highly recommend a spiral-bound logbook (as opposed to loose sheets of paper that get crumpled, stained and lost). For computer enthusiasts, logging on line is fine and preferred. The parameters are optional - miles, minutes, steps or Calories. Steps and minutes are the easiest to log. Calories are the most meaningful because 60 minutes of baseball doesn’t equate with 60 minutes of jogging. However, 100 Calories of

gardening, golfing, running, walking, biking, swimming, etc. is a 100 Calories of physical expenditure you can universally take credit for.

The Dream: If every person who ever started an activity program or registered at work for an activity program maintained consistent logs of his/her physical activities, we'd have a heck of a lot less people dropping out of their programs.

Footnote: When I trekked 11,208 miles across the 50 states in one year, walking the highways of America for 14 to 16 hours a day (I live more sensibly now), I logged all my miles and daily experiences. I even measured and recorded all my food intake (U MASS nutrition study, which showed I consumed 1.6 million calories in a year, 62% carbo; 27% fat; 11% protein). This tracking took me 30 minutes a day. Now, living a simpler life, I spend a few seconds a day recording in my physical activity logbook.

Q13 The organization I am working with is very big on evaluation of programs; what are the best practices to evaluate physical activity programs?

Sweetgall: This question ties strongly into accountability and tracking and the whole issue raised in Q 12. If participants keep their own personal physical activity journals, maintained over a lifetime, and if you collect this data from your participants: **(a)** the participants will do much, much better over the long haul; and **(b)** you will have the data in hand to show management how people followed through on the program.

Now, the question comes up: Is this data as good as doing BMI's, pre- and post- fitness screenings, etc. The answer is that if you believe the research results of both the *Harvard Alumni Study* (Paffenbarger, et al) and *The Dallas Aerobic Center's Study* (Blair, et al), then your primary concern in evaluation should be examining the improvements in employee activity levels - not a bunch of time-consuming

and costly of health screening data which may or may not tell the true longitudinal health outcomes of your people.

Also, simpler is better than more complicated. Example: if I wanted to know how fast my body and muscular-skeletal system were aging, and how effective a core-muscle strengthening program was doing, then I might take the quick and simple "Birthday Aging Test" by seeing how many footsteps on my pedometer it takes me to do one complete lap around a walking track (or any fixed distance) on a year-to-year or even a month-to-month basis. For most Americans, the comparative number of footsteps increases (due to aging, muscle atrophy, muscle weakness and imbalance). However, if your core-muscle strengthening program was truly effective, then people would be walking their laps in less steps, month after month, or year after year. This cost-free evaluation is so meaningful and so easy to do. This and other evaluations are discussed in the books, *Ten-Minute Meals*, *Five-Minute Workouts*, *Pedometer Walking* and *Move to Improve* (see www.creativewalking.com).

Q14 What strategies can you recommend to get executive management to participate in, become supportive of, and advocates of physical activity programs?

Ardell: This will not happen unless physical activity programs are presented as cost effective opportunities that employees will welcome that will benefit the company and thus enable managers to look good and get a lot of credit for supporting such a wonderful thing. That's human nature.

This suggests that genuine wellness-like physical and other programs be described for the managers to consider. Current offerings in most worksites are worthy and good medical initiatives and prevention activities, but they are clearly not wellness programs. The fact that they are described as such demonstrates a

continued lack of understanding about the nature of the wellness concept.

If given the chance to recommend executive management participating in and advocating for physical activity programs, I would not promote initiatives that are really prevention, risk discovery and reduction and things medical. Remember, physical activity and wellness are about enhancing quality of life. Outcomes associated with such investments include ebullience, resilience, personal responsibility and joy in life. Yes, wellness does encompass fitness, nutrition and stress management, but unlike medical checks and the rest of the non-wellness issues, wellness also involves enhancement strategies for relationships, critical thinking, finding added meaning and purpose (called "spirituality" by most faith-based Americans), humor, play and more. These areas are not about recovery from disease, crises, setbacks or other traumas. Instead, they are targeted toward enjoying life more, strengthening the sense that life is good and even beautiful at times and that optimism is preferable to pessimism and responsibility trumps helplessness.

Sweetgall: Executive Participation - This is a critically important issue as too often we undervalue the importance of administrator role modeling. So to keep things to the point, here are a few strategic ideas: (a) Have top administrators (CEO included) both **register** and **participate** in your program by doing the program just as any employee would do it. This way you can publicize to employees that management thinks enough of this program to be doing it themselves; (b) Have top management strongly encourage their department heads/supervisory staff to encourage their employees to attend kick-off seminars and to strongly consider participation in the program. By the way, it REALLY helps when top management attends a kick-off meeting and expresses a few words of support for a new program. All too often though, the second layer of management does not feel a strong vote of

support from top management, which is why we recommend item "B"; (c) Prepare a fun-loaded, humorous skit with top management involved. Video tape this and make it available to employees. The gist of this skit can be a skeptical VIP questioning the program's worth and then coming onboard through positive personal experiences to then become a great advocate of the program; (d) Try a new program called "**Walk with the CEO**" in which the CEO agrees to a regular weekly walk with one selected employee from each department or division. Selection could be based on a "Most Improved" basis for that week, for example, the employee with the best cost-reduction or health-enhancement idea of the week. The key here is that the CEO is seen walking and talking to staff. What a great way to really understand and learn what's really going on in the trenches of the organization. This, by the way, is the outright best selling point to get the CEO to consent to do the **WALK WITH THE CEO** project.

DIVERSE GROUPS & IMAGE

Q15 Working to promote physical activity with many different populations is challenging to reach all their needs. What differences do you see in working with teens, college-age students, adults, older adults, and also different cultures? Please advise on the best practices and approaches to promote physical activity to these groups.

Ardell: Peer-based efforts are more likely to succeed with different groups, but the best practices and approaches will depend on knowing a great deal about disparate groups across varied cultures. I want to address just one segment of the population not mentioned in the question – adolescents. These very young people now spend 45 hours a week (nearly seven hours a day on average) watching television, a computer monitor, a video game

display or a movie screen. These activities have one thing in common: They are done in a sedentary manner. All involve kids either sitting on their butts or lying supine, that is, not burning more than a few calories. Add to all these passive hours the times they have to spend sitting in classrooms, reading the latest Harry Potter books and so on and it becomes easier to explain the three-to-fourfold increase in the percentage of overweight U.S. children and adolescents since the mid-1980s.

Yet, is there more to it? Might something else be going on not readily apparent based on observing the way kids sit around and eat fatty, low nutrient foods, as if that fact was not devastating enough?

I think there is. Consider this: In rat studies, even a 48-hour period of inactivity can lead to a large increase in the amount and the size of fat cells in the body. Suppose that happens as well, even if it takes twice as long, in humans. If so, there's your obesity crisis. We did not evolve to live as we are, with massive hours of inactivity filling up the day. We are not "in shape" for this kind of deconditioning routine! Our youth are thrust into a 21st century sedentary environment, but evolution has not prepared them to survive and thrive under such conditions. There exists an incompatibility between human genes and modern society. The writing on the proverbial wall is clear -- we have not evolved to live as we do. We can't survive this way. Not well, in any event.

Human genes are sculpted as they are because humans always needed a great deal of physical activity for survival. It's likely that, say for a rare few given to royal indulgence and attendant sloth, young and old had to move a lot, every day - and be quick about it. We move hardly at all - and few would be quick about it, if they tried. However, the sedentary era has been with us less than 20 years out of what - a million or more of homo sapiens adapting? Imagine a representative sample of today's youth trying to deal with conditions common thousands of

year's ago. I think we would hear some serious whining.

Sedentary living not only makes young people (and others) fat; it also wreaks havoc on the body. Insulin sensitivity decreases after just two days of inactivity. The next thing you know, diabetes and other related diseases set in. The number of Type 2 diabetes cases in the United States is expected to triple to 39 million by 2050 (source: The Centers for Disease Control). After that, well, there is earlier death and then ... well, not much matters after that, does it?

Scientists, physicians, public interest groups and the rest of us need to insist that our politicians implement policies/programs and laws that might reverse the current deadly levels of inactivity, at least for children. Adults should at least assume responsibility for childhood inactivity, since kids can't do it without their backing. Kids lack maturity, influence, wisdom, time and a will to change. Children and adults are less likely to succeed, without a massive shift in cultural support and programs that advance physical activity. Exercise is the cure for what ails kids, and it's one cure for illnesses that should be promoted before the symptoms of illness begin to appear. The same applies to college-age students, adults, older adults, and also different cultures?

Sweetgall: The biggest differences we see in both teens and college students is their *no-fear attitude and indifference* to many healthy lifestyle issues. For example, younger populations are more concerned about their "looks" and "body image" and their "dating careers" and money than such things as the long-term effects of trans-fats, cigarette tars and their lung tissue or cholesterol, insulin, diabetes, cancer, etc. However, as life progresses, these "invincible" creatures start paying attention to these health issues that are affecting them in the present. This is just the natural progression. So to offer some constructive comments now, my recommendation is to make some of this wellness program stuff mandatory as in a

required course or a graduation requirement such that every student needs to participate - to the point of say keeping a physical activity journal, answering some basic questions on a final exam, submitting his/her journal as part of the final evaluation, maybe even wearing a pedometer as part of the self-assessment/physical activity program. This is not asking too much if you believe there should be a health/physical activity component in our education system.

As far as other populations go, I believe in being sensitive to their needs such that physical activity programs are designed with flexibility and broad appeal. All activities count; you can do them before, during or after work, on your own or with a partner, no restrictions - just work these activities into your personal schedule at your comfort level and to your enjoyment (no 30 minutes at 70% target heart or 10,000 steps-a-day minimum requirement).

Q16 What challenges do you see in working with men versus women and vice versa in promoting physical activity and getting them involved? Any advice?

Ardell: The needs are the same, as is the innate desire for all the splendid benefits of fitness and healthy lifestyles. Try not to get bogged down in the distractions gender issues.

Harris: The level of readiness of the individual is more predictive of success than is being male or female. Men may be more likely to be motivated by competing, whereas women may be more motivated by connecting. Group exercise classes seem to appeal more to women (but exercise participation surveys indicate an increase in men participating in yoga and Pilates and women engaging in strength training). Training for a goal can be an effective motivator, like a local 5 or 10K or a more lofty goal like hiking Kilimanjaro (which is doable for anyone who has a low to moderate level of fitness who would like to be more highly fit—

the climb is not technical, just long hiking for six days or so) or training for a cause, like the AIDS ride or the Avon breast cancer walk or Danskin (entry level women's) triathlon may be motivating for both men and women. Effective incentives include team training, finding a fitness buddy, and being able to exercise during work hours (which even the White House allows). One might also be encouraged to try something more unconventional like getting a group together to build houses for Habitat for Humanity or clear hiking trails with the local Sierra Club or assist in local community clean-up projects that are physical in nature.

Sweetgall: Interesting how few men sign up for wellness programs in general. Is this because men have an attitude of "If it ain't broken, don't fix it." Or is it because guys think "wellness" is sissy stuff? Or is it because most of these programs are designed by wellness teams composed of almost all women? Or is it because you titled your program with the word "walking" which a lot of men think is for their grandmothers? Or all of the above?

For starters, try putting a few more men of wellness planning teams. As in Question 14, get more male VIP role models to appeal to their counterparts. Men like competition; however one must be careful as too much competition can turn off many people. The middle ground can be a fun competition in which there is not a winner-take-all strategy. Mixed teams also can be fun. Showing images of guys hunting and fishing and playing golf on promotional materials might convey the fact that all physical activities count in this program. Using pedometers can be a big plus because guys love things with buttons, batteries, springs, readouts with numbers. This is like wearing a mini-computer on your hip. In 20 years of designing these programs and helping organizations implement them, I have seen more men register for pedometer-based programs than just about any other type of program. Maybe if we cater a bit more to the men, we can start narrowing the

6.5-year longevity gap between men and women in America.

Q17 Please comment on the biggest obstacle that I see in keeping people from exercising regularly (unless people in Milwaukee are different from the rest of the country). I see young people working too many hours/week to stay with a regular physical activity program (or to play with their children, talk to their spouses, or do just about anything else that isn't a "perceived urgency" in their hectic lives). We can't even sell the 10 min. additive plan to getting >30 min./day to these hard working people. (They need the overtime or the job demands 50+hrs/week!!)

Ardell: It's not clear what that "biggest obstacle" is in your view. That people work too hard, or too much? That exercise takes too much time? Excuses, excuses, just pitiful excuses.

Yes, we have to challenge the overweight and under exercised to reconsider their neglect of adequate exercise, including those in Milwaukee. Adequate exercise on a daily basis is neither quick nor easy but it still deserves a higher priority than most are willing to admit, and commit. With a major commitment to serious daily exercise, people could transform! By definition we could no longer consider them lazy-- and they surely would no longer feel the need to medicate themselves with excessive doses of prescription and over-the-counter medications.

It is time to consider other approaches beyond the minimalist strategies suggested by Ken Cooper and others who counsel moderation (20 minutes a day of light exercise, for example). Such coddling will not enable people to lose hazardous fat OR, more important, to achieve and maintain muscle tone. Exceptional health will come only with exceptional fitness.

Recently, the National Academy of Sciences'

Institute of Medicine recommended 60 minutes or more exercise daily for preventing weight gain and achieving adequate fitness. I've been urging that level for decades, based on my own experience with exercise and reading of the literature, work with students and so on. A recent *USA Today* article (3/27/2003) also featured accounts by varied experts agreeing that everyone in the 64 percent category should double his/her daily exercise levels.

Dr. Cooper and others knew, of course, that 20 minutes or even half an hour of activity was insufficient. Yet, they chose not to recommend any more out of concern that even this amount would seem too much trouble to the sedentary mindset. Unfortunately, 20 minutes daily was never enough activity, even if undertaken faithfully (regularly, in other words), to keep waistlines from bulging over time.

The goal was to get sedentary Americans to do something, anything, but many people didn't realize that 30 minutes of activity might not keep their waistlines under control. Now the pendulum is swinging back.

A top medical expert at the Harvard Medical School summed up the problem in this quote from the *USA Today* story noted above: "People have got to stop kidding themselves about what it takes to control weight. They can't take a little stroll and think they are doing themselves any good. You need the intensity and you need the time, at least 60 minutes." Just so.

A different expert based at the University of Colorado Health Sciences Center in Denver referred to the former minimal standard of Cooper and others: "If everybody did 30 minutes of activity a day, it would be huge for public health. Would it make everybody lean? I don't think so."

One guide to whether your activity level is sufficient is your weight and body composition. If you are adding weight and gaining girth, even

with the old 30 minutes routine, it's clear you need to do more. Maybe you should start training for a marathon, even if you don't really intend to do one! With the exception of those who do marathons as a stunt publicity gimmick, like Oprah Winfrey, there are not a lot of tubby long-distance runners. Of course, it's hard for everybody, even skinny people, to run long distances, both mentally and physically. Trust me--I know. I run about six miles daily, and it's not fun. However, the payoffs are huge, so it's worth the aggravation, considerable time required and injury risks.

I'm always amazed that when sedentary folks remark on how they never see runners smiling. Of course not--it's not about having fun. It's hard work. The time to smile is AFTER a run, in part because the run is over for the day. As noted in the beginning, if adequate exercise were easy to obtain, everyone would be working out and fit, healthy and committed to wellness lifestyles. Alas, we are as a society a long way from that happy day.

Do what you can to get as close to an hour a day of vigorous exercise, knowing that it is easier for some than others but difficult for everybody. Life is not played on an even playing field - a few people will always have better genetics, toys, opportunities and other resources than you do. Do what has to be or should be done anyway. Add strength training and some flexibility work to your hour-long aerobic or endurance-training regimen. The rewards, payoffs and satisfactions will justify many times over the huge troubles, pains and time required to pull it off.

No, fitness and wellness are not easy, but all who manage say it's worth the ordeal. An old Yiddish proverb holds that "if the rich could hire others to die for them, the poor could make a wonderful living." Just so for adequate daily exercise (an hour a day at least): "If the rich could hire others to exercise for them, wellness seekers would make a killing!" As you know, reality is otherwise. The rich, like everyone

else, must do for himself or herself or grow fat and die young. As one doctor noted in the *USA Today* story, "Despite all the technological advances in modern medicine, regular physical activity is as close as we've come to a magic bullet for good health. So, find activities you enjoy and do them."

Harris: It's generally a number of factors that cause people in higher socioeconomic levels not to work out. Most know they should for their health and many say they would like to if only they had the time. We all know that there are many busy people, from CEOs to middle managers, to entry level workers that are regularly physically active. Yes, it's a matter of priorities (in that we generally get done those things most important to us). Resources are not generally the issue for those in higher socioeconomic levels. One effective motivator may be the law of diminishing returns, particularly for the workaholic type: When someone *feels* tired, how much is accomplished with 45 MORE minutes of deskwork, versus taking even a 30-minute exercise break that benefits health and is revitalizing?

Secondly, no job is worth your life, is it? I think people have to answer the question, "Is your salary worth the cost of your life, even sacrificing the quality of your life, and your health?" One president at our company began working out as her job got increasingly stressful and job expectations unrealistic. She realized she could never get all of her work done anyway so she might as well work out and take care of her health. Over time, nothing got in the way of her workouts. Rather than getting "eaten up" by her increasingly stressful job, she became increasingly clear-headed about the entire situation. Exercise helped her maintain perspective and gave her more energy to work long hours, but she also stayed in better touch with knowing when to leave the office. She had to get her rest to keep up the pace. As her job got more stressful, she got more fit to deal with it—and she also learned when to shut the door on the job!

Jim Loehr, Ph.D., of LGE Sport Science, Inc., a sports psychologist who also coaches many corporate executives, views the business executive as a corporate athlete. Exercise is necessary to physically train his/her body to meet the high stress demands and long hours. And nothing should get in the way of eating well and exercising, particularly the periods of highest demand. The more stressed you are, the more you need to pay attention to eating well and exercising to manage energy...but that's the higher socioeconomic level, for whom exercise and eating well are generally a matter of choice and not education or resources.

The story is different for those of lower socioeconomic levels: unsafe neighborhoods, lack of education and resources are real barriers. For many, local community/neighborhood centers that promote family health and provide family fitness and social activities in local neighborhoods may be the most likely way for some to participate in physical and other wellness activities.

Sweetgall: I'm not sure Milwaukee is the only area in the U.S. with this problem. I do think there is a strong difference between getting younger vs. baby-boomer types enrolled in programs (as discussed in Question #15). And yes, finding the time is a big issue. So to help alleviate the **time excuse**, one option is to promote physical activities that require absolute minimal time. For example, active-living programs in which people are asked to take three seconds in the morning to put on their pedometer; and then to take another three seconds in the evening to record their data. Forget the requirement that you have to do 10-minute blocks of exercise. Whoever decided that one needs to exercise for 10 straight minutes to get credit? Studies, decades ago, clearly showed health benefits for "active postal delivery workers" when compared to "inactive postal clerks." Similar studies on bus drivers vs. active bus-ticket collectors and field railroad workers vs. railroad clerks showed similar

results. The whole point is to promote an active lifestyle. If this means making tiny, incremental steps such as taking a 3-minute lunch-walk, or climbing a flight of stairs to deliver an e-mail on foot, or parking on the far side of the Walmart lot instead of circling like a shark for minutes to find the "best" closest parking spot, then tell people that in this active-living program anything counts. Just wear your pedometer and spend a few seconds a day (and I do mean a few seconds) to record your progress (for self-esteem, pride and personal accountability). And then, if you want to offer some incentives to participants who turn in their data, you will get program accountability. For approx \$12 (worth of healthy, creative incentive prizes) per participant per year, you can do a quality incentive program. By following this "active living" approach, even a stressed-out mom or dad can be earning activity points (steps or miles) while circling a soccer field during their child's game (instead of screaming their blood pressure to an all-time record level). To learn more about this approach, I personally invite you to call me (Robert Sweetgall) at 1-888-421-9255 or visit us at www.creativewalking.com.

Bottom line: Most typically we see an average participation rate ranging from 30 to 70 percent when these rules of engagement are followed.

Q18 a) How can we best promote exercise and physical activity without making our populations feel inadequate for being overweight or obese. How can our profession not contribute to negative body image while still promoting healthy behaviors?
b) On the flip side of the first question, how can we promote exercise and physical fitness while not encouraging eating disorder (ED) behavior? There is a marked increase of ED's using over exercising as a negative coping/binging mechanism, how can we effectively promote fitness without increasing the occurrence of over exercising?

Ardell: You have asked a lot of questions within one question. People already feel inadequate when they are obese. Start with reality. Body images of a negative nature follow as a consequence of obesity. Our focus should be how to be helpful to those who want our assistance to move toward healthier lifestyle practices. Also, we do not cause eating disorders by being insensitive to people with serious issues with eating – they have had these problems long before their encounters with wellness promoters, in almost all cases. Focus on being an effective change agent for wellness and let trained experts work with the eating disorder issues.

Harris: a.) We have an exercise biology, so our bodies require physical activity to be well. Community centers, offering activities from dancing to building houses with Habitat for Humanity, having walking clubs in neighborhoods, at malls, offering a wide variety of classes and experiences are some options. We need to emphasize that everyone deserves to feel great in his/her body, and physical activity is fundamental to feeling good and being healthy. It doesn't matter what activity you do or where you are physically active. Having exercise leaders of all body shapes and sizes, and peer leaders of a variety of body shapes, ages and ethnicities, gives the message that physical activity is for all.

b.) Helping people find the joy in moving their bodies is a good strategy. Helping women focus on what their bodies can do rather than what they look like can promote better body image. If you can create groups of women belonging to wellness groups, discussing issues, including how they feel about their bodies, it may help women gain support and find a "common voice," realizing that other women are feeling just like they do. The women begin supporting each other's wellness and fitness goals. The group can discuss what's healthy or body-positive behaviors and what are not (engaging a psychologist who specializes in body image to lead this if possible). The group can promote

body-positive goals of feeling better and taking better care of their bodies. Also women can encourage each other in developing more movement competencies (gaining new skills, maybe learning a new sport or accomplishing a movement goal). These strategies promote better body image and decrease negative body feelings.

For a couple of years, prior to my becoming editor of *Shape*, I had a wellness company (after teaching physical education at the high school and college levels, including adult fitness), where my work included prescribing exercise programs and working with a nutritionist to also provide these clients with nutrition programs. Writing the programs was the easy part. Getting them to comply (and like their thighs) was the hard part. I worked with a psychotherapist as a business partner who addressed the behavioral issues very successfully. Working together, we were able to more effectively facilitate individuals' success. And when I started taking women climbing (hiking) mountains, they began to like their thighs. *I discovered that women will never criticize the size of their thighs when they reach the top of a mountain!*

Explaining the physiology can help, too: While our bodies require high amounts of physical activity to be well, they require time to recover, too. When you study the training programs of competitive athletes, you see that they include moderate and vigorous training, and that rest is an integral part. Fitness is about learning to care for your body better: Any exercise extreme is unhealthy.

Sweetgall: I'm not an expert on eating disorders, but here is my take in a nutshell. If more people would focus their attention on putting a little more fun, play and activity in their lives (especially recreational stuff), and stop worrying about their weight, body image and everything they think they should or shouldn't eat, maybe we'd have a healthier and happier population, and the weight and body

image would improve as a by-product of the active lifestyle.

Q19 When talking to individuals about exercise, many people want to lose weight from exercise. In research I have read that individuals who lose weight and exercise do not lose more weight than those who follow a lower calorie diet. The rationale seems to be that to lose a pound of fat, the amount of exercise required to do that is hard to attain. Also, exercise expenditures must be over basal needs to result in fat loss. That is, people may be disappointed when they exercise for long time periods and do not see change. For individuals who have lost weight and keep it off exercise, is major variable.

I realize exercising engenders other healthy behaviors, which augment weight loss independent of calorie expenditure. How do you suggest giving individuals a correct perspective on the correlation of weight loss and realistic expectations of exercise amounts, and to help them develop other endpoints that are more realistically attained? Also, am I correct in the information I have read and learned in my doctoral program in preventive care?

What is your opinion of the paradigm shift which supports health for everybody e.g. body acceptance, large individuals can be fit and this combined with educated eating (fresh foods and eating for satiety)?

Ardell: Well, that's quite a question. Where to begin? More important, where to end? Maybe with the "paradigm shift" idea. The other day, a woman wrote to me and asked: "*What shall I do, Don? I'm almost 30 and, like all women (well, maybe there is ONE exception out there, somewhere, but I doubt it), I obsess about my weight. I don't like to exercise but I do it anyway to control my weight. I work out a lot and people say I look great but I think I'm way too heavy, mainly because my dress size is*

greater than it was ten years ago!"

I responded by quoting Edgar Watson Howe, who a century ago (in *Country Town Sayings*) remarked, "*A really busy person never knows how much he weighs.*" From there, I noted that it would be best not to expect the same size dress or anything else to fit from decade to decade - the body does not stay the same. It certainly does not stay in the same place any more than it did for Alice in her storybook wonderland -- as we age we all have to run harder to stay in the same place! More important, I noted that dress size was not so important in the grand scheme of things - health and fitness, on the other hand, do matter very much. I urged more exercise and a number of specific wellness articles that I sent along.

Later, I thought some more about obsessions and wondered at what point a persistent thought becomes an obsession. Obsessions are defined as repetitive, unproductive thoughts that interfere with normal functioning. We all have such thoughts now and then, or at least used to before we became the model "wellites" we are today. Of course, we got past such unproductive musings soon enough. Such thoughts can, however, become what in clinical terms are considered obsessive-compulsive disorders for some people. When that happens, such patterns of thought become so exaggerated, highly distressing and persistent that sufferers no longer function effectively. At that point, they need help greater than E-mail advice. No doubt weight issues (and dress size thoughts) are common amongst sufferers of obsessive-compulsive disorders.

In the case of the lady mentioned above, I suggested the challenge was to develop a strategy for convincing herself she was doing great. Just saying so is usually not enough. The culture in which we live is deeply enmeshed in unrealistic body images. Discussions with supportive friends, readings and reflections on the matter over time are probably in order. Anyone who engages in regular exercise and a

sound diet has little reason to worry about her dress size - she no doubt has a healthy body fat-to-muscle ratio and that is the important matter, not dress size.

We all need to find ways to convince ourselves that we are doing OK, or even great, when little mini-obsessive thoughts of this nature come to mind. Based on even the limited information provided in the good woman's question, she seemed to be doing fine. Unfortunately, bodily self-assessment, particularly with females, is founded on other than reason, objective evidence and rational inquiry. Tradition, peer pressure and acculturation are among the factors that create heartfelt convictions often at odds with reality! The problem of unrealistic body image plaguing women in our society is one of the more complex matters of cultural conditioning. It has no simple solution, at least not to my knowledge. It certainly cannot be cured with a few, or even many, well-chosen words, however sensible. I told the good woman who wrote to me that she was on the right track. Specifically, she seemed to know that she was caught up in unrealistic, self-imposed demands to be as thin at thirty years of age as she was at twenty. Her challenge was to shift the focus from dress size and weight to fitness and wellness. It won't be easy to do that but I think she can, based in part on the wit displayed in her question and in part on her demonstrated interest in personal responsibility and other self-management skill areas.

We might all benefit, on occasions, from a quick review of the facts, obstacles and futility of battling weight apart from the larger strategy of a life-long commitment to fitness and a healthy lifestyle.

Janet Waldman, in an article entitled "When Thin Is Too Thin: Women, Weight and Body Image", observed that "we live in a culture obsessed with food and weight, in a time period when curvy Marilyn Monroe and Kate Winslet are considered fat, and the stick figure of the moment is touted in movies and magazines."

No wonder women have a problem shopping for size twelve when they want to be slipping into size two, if not zero!

Yes, I can imagine that anyone would have trouble getting into size zero!

Medical experts say that progesterone levels decrease before estrogen levels drop, and the former slows the metabolism of carbohydrates and increases water retention, which makes women feel puffier. Fortunately, guys have learned not to compliment a woman by telling her she looks puffy. This is not a good icebreaker or pickup line. The best thing, for women and men, is to focus on a healthy lifestyle, and think less or not at all of movie or magazine body images of ideal weight or size. Fitness matters, self-management matters, but dress size does not.

Enjoy yourself, exercise hard and stay well.

Harris: See research presented by Gaesser above. Some lose weight with exercise while others even gain weight, though other research has shown that the greatest predictor of long-term weight maintenance is regular exercise. Conflicting data indicate, however, that weight loss/management issues are complex. Though there are a lot of (exercise, nutrition and behavioral) strategies from the National Weight Control (NWC) registry participants (over 6,000 people who lost over 67 pounds and kept it off for at least six years), like eating breakfast, eating balanced meals throughout the day, doing an hour of walking per day for exercise, monitoring weight regularly to track progress and implementing original action strategies at early signs of weight regain, etc., we know that one size does not fit all regarding the best type of exercise or diet for weight loss. (While the data is pretty strong, showing that low-fat, high carbohydrate diets seem to predict lower body weight (and fat) levels, there are a lot of ways to implement this.) Some research suggests that burning 2,000 calories a week (the most recent dietary standards for maintaining weight loss)

may be necessary. Bottomline: People have to enjoy what they eat and movement has to be fun or people will eventually quit. Willpower is like holding your breath.

Focusing on endpoints is not effective for many either. It often leads to failure. When does one “arrive?” We have to divert the focus to the process, measuring success by participating and changing behaviors. In addition to tracking physical activity, one can also measure progress as feeling better, having more energy, sleeping better, etc. You may already be involving the person in program design: The person helps determine, - “How often? How long? When and what types of movement? What nutrition changes make sense to you and seem appealing?” Also, we need to share the message, “There’s no hurry: You have your whole lifetime to get in better and better shape.”

Also, the “best match” movement prescription, one they truly enjoy, may be lifestyle exercise, as evidenced by the Cooper Institute’s Active Living research (showing that lifestyle exercise prescription may be more effective for long-term compliance and health benefits for some individuals than a formal exercise prescription).

Where do we go from here? One Size Does Not Fit All. There are many programs with documented results. The NWC registry, the largest database of those who have lost weight and kept it off, shows that, yes, it is possible for some to lose weight and keep it off. And for some, walking can be the most effective form of exercise.

Strength training research shows impressive health, fitness and wellness benefits, and may be increasingly important for older adults. The research out of Tufts University, by William Evans, Ph.D. and others, showed dramatic changes, even for those in nursing homes (many who were able to abandon their walkers) with strength training. They improved their walking speed, ability to climb stairs and their spontaneous activity increased. The BEST

(Bone, Estrogen, Strength Training) program for women 50-plus, conducted by Lauve Metcalfe, M.A., Linda Houtkooper, Ph.D., and Tim Lohman, Ph.D., of Univ. of Arizona, has shown that dramatic changes in health and fitness are possible. More than that, sense of self significantly improved for many of these women!

Paradigm shift - While data does show we have an obesity epidemic, when it comes to health our major concern needs to be the inactivity epidemic. Fitness matters more than body weight. Research reported in the *New England Journal of Medicine* showed that fitness mattered more in death risk than such classic cardiovascular risk factors as high blood pressure, smoking and body mass index. If a person doesn’t want to improve fitness and become highly fit, getting moderately fit (from couch potato unfit) improves health significantly (as shown by research from the Cooper Institute). So while being more highly fit offers more health benefits, getting the greatest number of people to become moderately active seems to be the most worthy physical activity goal.

Furthermore, aren’t we advocating healthy, active and well lifestyles for all? In our society that discriminates against overweight, I believe it is our role to provide a compassionate, supportive environment to help people of all sizes, shapes, ages, ethnicities and socio-economic levels to love their bodies, love movement and love taking good care of themselves. Yes, overweight is likely to place more stress on the joints and other body systems, too; and while we should help overweight people to stop gaining weight, preaching to anyone to lose weight probably doesn’t help. We should encourage and assist all people to live healthfully and to adopt behaviors so that they can be healthy, inspired and energized—feel great in their bodies—and develop their physical selves in balance with their emotional, social and spiritual selves to best contribute their gifts to the world.

Sweetgall: There are many variables that would affect the answers to your questions, but here are some indisputable facts that would apply across the board:

a) Reasonable caloric restriction in our super-sized meal society would be a wise move for the vast majority of adults, mainly to enhance longevity, slow aging and reduce chronic disease. Yet Americans keep focusing on reducing calories, even unhealthfully, just for weight loss. Putting one's weight aside for the moment (because it is by far not the most important thing in the world or your life), let's look at food calories and physical activity calories from a true health perspective.

Food Calories: The more you eat, the quicker you age and approach the end of your life. Reason: The "fuel" we digest gets oxidized, creating free radicals, which ages the body. This has been demonstrated on lab-animals eating full-calorie and restricted-calorie diets. The result: the animals eating smaller portions have more energy, less disease, less skin and hair aging affects. Human analogy: why do you see so many more 90-year-old seniors eating frugal portions. Also, why do you rarely see 300-pound 5000-calorie-a-day retired football players live past age 75?

The key is a frugal-eating lifestyle with nutrient-dense foods from which one receives essential nutrients without excessive calories, pretty much the opposite of what most Americans do with their opaque, stained greasy, 1,200-calorie fast-food bags at the drive-in that contain maximum calories and minimal nutrients. Again, I'm looking at this from the big picture of aging and health; not the self-centered egotistical picture of one's weight on a bathroom scale.

Physical Exercise Calories: The most revealing longitudinal research studies (Harvard Alumni Study, Paffenbarger, et al and the Dallas Aerobic Center Study, Blair, et al), clearly show

that the healthiest, longest living, disease-free people seem to be averaging approximately 2,000 Calories to 3,500 Calories of total physical activity per week over a lifetime. Since walking a mile burns approx 100 Calories for an average 150-lb person (emphasis on average), we're talking about a level of 20 to 35 miles a week or 3 to 5 miles of walking per day. I do not know of any studies that relate muscle mass to longevity; nor do I know of many people who died from lack of muscle mass. Yet millions die from heart disease, diabetes and cancer. By the way, fitness fanatics, those who exercise well in excess of these recommended levels, show an increased rate of chronic disease mortality. Why? Maybe it's because of their obsessed general nature and unbalanced lifestyle; or maybe it's because they have to eat so much more food to replenish their spent fuel, which leads to more free radical generation (kind of like driving a car 100 miles a day ... the engine takes more wear and tear).

A Different Perspective on Physical Activity: Try not to think of physical activity from a purely caloric - weight management perspective, which is what most Americans do. The benefits of physical activity go well beyond the mentality of dieters. Think of how physical activity strengthens the bones, the heart, the mind, social relationships, one's emotional and spiritual understanding, the whole joy and quality of life.

The Bottom Line: Everything in moderation - reasonable food portions, and reasonable lifelong activity levels. Most important, is your **current state of physical activity** - not your past glory days. In other words, what have you done for yourself lately?

The Muscle Issue: I think muscle building is over-played in America. Most of the muscle strength needed to lead a long healthy life comes from doing a variety of weight-bearing activities. It is the lack of an active lifestyle that leads many Americans to "get weak" and develop poor posture, low-back problems and

all kinds of balance/stability issues. Doing 200 crunches to get your egotistical 6-pack stomach ripple has little to do with health. If there is one, and only one, strength training exercise I'm going to be doing for the rest of my life, it's **core muscle strengthening**, which focuses on the **hip flexors**, the **hip extensors**, the **hip abductors** and the **hip adductors**. I do the **hip circuit** at home and on the road during my speaking tours using stretch latex tubing that locks into the jams of my hotel room doors. This hip circuit routine takes me 3 minutes total time. For these 3 minutes I get to strengthen and balance the critical core muscles that serve as cable wires to keep my pelvis and muscular-skeletal system (especially L-4/L-5) in proper alignment. This is similar to Pilates, but you don't need big, expensive equipment and 60 exercises to follow. Hence, I concentrate on the most important strengthening routine - the hip circuit for core-muscle strengthening. This doesn't directly create that much extra muscle mass in my body; it just aligns and balances my frame so I can maintain an active lifestyle. To learn more on this Hip Circuit, read *Stretch for Strength by Physical Therapist, Pat Zak & Robert Sweetgall* ref www.creativewalking.com.

The Human Car Analogy: You can have a great engine in your car (your cardio-aerobic engine); and you can put high-octane in your gas tank (the food you eat); but if your car frame, struts and shocks are all rusted and beaten up (your muscular-skeletal system), you're not going to be cruising down the highway safely.

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