

From Theory to Practice: How to Use the New Lifestyle Activity Research to Maximize Your Clients' Health



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As fitness professionals, we strive to help our clients overcome obstacles and achieve their health and fitness goals. A growing body of research suggests that lifestyle activity—the movements we perform every day, like walking up stairs or cleaning the house—can be an effective tool for achieving health benefits and staying active despite time constraints. The following article takes a closer look at the research, dissects conflicting exercise recommendations, and provides guidance on how to educate your clients about the importance of increasing their daily lifestyle activity.



How do you encourage your clients to be more active throughout the day? Share your ideas for increasing lifestyle activity in the comments section below.

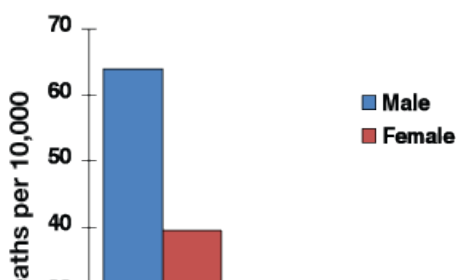
How Fit Do You Need to Be to Achieve Good Health?

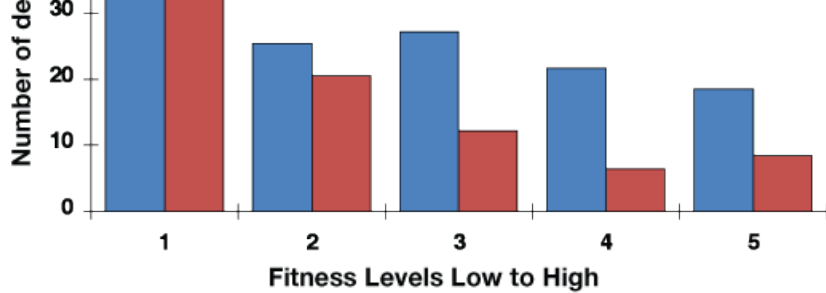
In the 1980s and 1990s, epidemiologists started looking at the association between longevity and levels of physical activity. This is typically done by establishing baseline physical activity or fitness levels in a given cohort and following them over a number of years. During the follow-up period, investigators document whether or not participants are alive or whether they acquired certain types of disease. As we might expect, most of these early investigations reported that the least-fit individuals had the worst health-risk profile and, conversely, the most active people tended to live longer, healthier lives (Morris, 1994).

A landmark study by Dr. Stephen Blair in 1989 significantly reshaped the way the exercise science community thought about exercise programming and recommendations. The study compared levels of all-cause mortality across fitness levels in men and women. Figure 1 shows the rate of mortality across five category levels of fitness in men and women. It is noteworthy that the least-fit men and women had significantly higher rates of mortality (Blair, Kohl and Paffenbarger, 1989). However, there was a tremendous difference in the mortality rate between the least-fit and the second least-fit groups, indicating that mortality was reduced with even a moderate increase in fitness. Furthermore, there were additional, albeit somewhat smaller, gains to be derived from moving along the fitness continuum. In other words, this classic study demonstrated that it is possible to obtain many of the health benefits of physical activity at a level that is lower than what is necessary to improve fitness.

Figure 1

Fitness and All-cause Mortality





Source: Blair, S., et al. (1989). *Journal of the American Medical Association*, 262, 2395

In 1995, Dr. John Jakicic compared the fitness and weight-loss effects of exercising in multiple short bouts versus one continuous bout (Jakicic et al., 1995). His finding that the two approaches produced similar and significant improvements in health, fitness and weight change across both groups prompted exercise scientists to rethink the classic exercise recommendation of vigorous, continuous exercise three to five days per week. Together, these early studies helped inform the concept of lifestyle activity, which encourages individuals to look for opportunities in their daily lives to *accumulate* moderate-intensity activity throughout the day.

Today, the greatest barrier most sedentary adults face in adopting a more active lifestyle is a perceived lack of time (Andersen and Jakicic, 2009). The American work week has expanded and most people feel like they do not have enough time in the day to get to all the things in their lives that need attention. Furthermore, most adults work behind a desk or a computer and expend little energy at work. As a result, lifestyle activity can be particularly helpful to sedentary people because they can work activity into their lives throughout the day. For others, vigorous exercise is simply not an option—or an undesirable one at best—which has prompted many to abandon their exercise efforts altogether. Fitness professionals, however, can serve an important role by educating clients about the significant health benefits that can be achieved through lifestyle activity.

The Evolution of Physical Activity Recommendations

The exercise guidelines released by the American College of Sports Medicine (ACSM) in 1971 were relatively simple: Adults should aim to exercise three times per week (on non-consecutive days) at a vigorous intensity for at least 30 minutes. These guidelines were widely publicized and many fitness enthusiasts believed that they had to meet or exceed these thresholds for their exercise efforts to be effective. Then in 1996, the Surgeon General released a comprehensive report that encouraged all Americans to accumulate 30 minutes or more of moderate-intensity activity on most days of the week (U.S. Department of Health and Human Services, 1996). It was noted that adults could derive significant health benefits from physical activity at intensities that were considerably lower than what might be required to improve fitness. At the time, many fitness professionals were worried that the public would interpret these recommendations to mean that they should drop their vigorous exercise routines. However, the report was intended to suggest that lifestyle activity may be a viable option for those who do not accumulate enough physical activity to derive health benefits. (Individuals who are able to exercise vigorously three to four times per week should be encouraged to continue with what they are doing.)

In 2001, however, the American College of Sports Medicine (ACSM) noted that accumulating 30 minutes of moderate-intensity activity was likely not enough exercise to derive weight-management benefits (Jakicic et al., 2001). Instead, they recommended that 200 to 300 minutes per week would be needed to enhance long-term weight loss. Similarly, the Institute of Medicine now recommends 60 minutes of vigorous-intensity activity daily for weight management (Institute of Medicine, 2010), and the International Association for the Study of Obesity now suggests 45 to 60 minutes per day for weight control (Sariss, W.H. et al., 2003).

In its most recent recommendations, ACSM noted that unhealthy weight gain can best be prevented by exceeding the minimal physical activity recommendation and striving to **accumulate as much activity as can be safely achieved** (Haskell et al., 2007). In 2008, the U.S. Department of Health & Human Services released physical activity guidelines stating that adults gain substantial health benefits from engaging in 150 minutes a week of moderate-intensity aerobic physical activity, or 75 minutes of vigorous physical activity. More extensive health benefits can be achieved by increasing aerobic activity levels to five hours a week of moderate-intensity exercise or 150 minutes a week of vigorous-intensity aerobic physical activity. Additionally, it was recommended that adults incorporate muscle-strengthening activities at least two days a week (U.S. Department of Health and Human Services, 2008).

It is important to note that this physical activity recommendation can be met through a combination of vigorous- and moderate-intensity activities. For example, a person could exercise vigorously for 60 minutes with a trainer twice a week and accumulate 45 minutes of walking per day on the other days.

Why is Lifestyle Activity so Important?

Today's fast-paced society leaves many people feeling overwhelmed and at the end of their rope. And if your clients are like most Americans, they are no doubt working longer hours and spend much of their leisure time preparing food, shopping and driving their kids to after-school events. Women, especially, are more likely to feel guilty for taking time for themselves instead of tending to their families. Dropping an exercise program

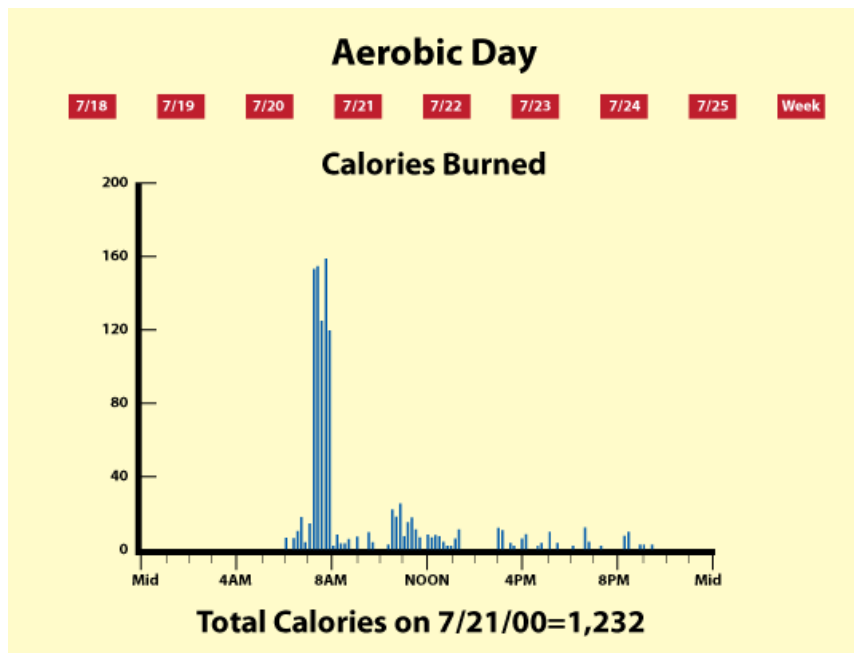
is often an easy way to free up time.

Given these challenges, it is essential that fitness professionals provide clients with options and tools that can positively impact their health beyond the gym or fitness studio. In our research, we have found that helping individuals increase their lifestyle activity levels is often the first step toward adopting a more rigorous, formal exercise program. In one study, for example, we found that more than two-thirds of sedentary overweight adults who started a program of lifestyle activity migrated to a more traditional, vigorous exercise program. We suspect that individuals gain the confidence in themselves when they realize they can increase their daily energy expenditure in a meaningful way. Additionally, it is human nature to make time to do the activities we enjoy—once people find that they actually like doing lifestyle activities they may be more likely to devote a portion of their leisure time to structured exercise.

The Active Couch Potato vs. the Lifestyle Exerciser

Consider the following comparison between two individuals. The first person is an accountant who goes to the gym before work every morning. His daily activity level is presented in Figure 2. As you can see, he expended a considerable amount of energy during his workout, but was fairly sedentary throughout the rest of the day. He is an example of what we call an “active couch potato.”

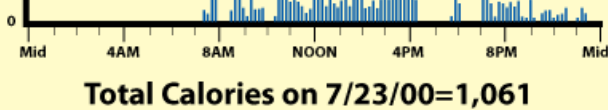
Figure 2



The second person does not participate in vigorous activity, but is consistently active throughout the day. Her activity level is presented in Figure 3. Despite not performing a traditional workout, she expended a similar amount of calories as the accountant in the previous example. In addition, we could look at her plot and notice that she expended little energy between 4:30 and 7:30 p.m. This could offer an opportunity for her to strategize and look for ways to be less sedentary during this time period.

Figure 3





Practical Steps to Helping Clients Increase Lifestyle Activity Levels

Regardless of weight or fitness status, every client can benefit from increasing his or her lifestyle activity level. It is important, however, that the client be directly involved in developing workable strategies that suit his or her lifestyle. Therefore, the first step is for the client to carefully examine both leisure time and a typical work-day to look for potential slots to work in physical activity. Each person's activity pattern will be different. For example, a stockbroker working on the 12th floor of a high-rise building may have the opportunity work in lots of stair use into his or her day. Likewise, a stay-at-home mom may increase her activity level by tending a vegetable garden in her backyard and mowing the lawn.

Reduce Time Spent Sitting

One of the key concepts to helping clients with lifestyle activity is to reduce the time they spend sitting. Our research has revealed a strong link between body-fat percentage, BMI and the number hours spent watching television (Andersen et al., 1998). Additionally, newly published research has demonstrated a direct relationship between the number of hours of television watched and the prevalence of the metabolic syndrome (Wijndaele et al., 2010). Given these findings, it is significant to note that a recent [Nielsen report](#) revealed that adult Americans are watching more than 150 hours of television each month. Having clients keep daily time logs can offer insight and an opportunity to examine television viewing habits. A sample time log can be downloaded [here](#).

Ask clients to keep a detailed log of the total time they spend sitting watching television or videos. [Note: Time spent doing other activities, such as preparing a meal, when the television might be turned on should be excluded.] Be sure to have your client track their viewing on typical weekdays *and* weekends, as these can often vary widely. It is often quite startling for clients to add up the total amount of time they spend in front of the television. Another useful step is to note the program that is watched (or if the time is spent channel surfing). More often than not, people waste time looking for appealing programming or will watch something simply because nothing else is on. It is this time, in particular, that can be used for more active and productive pursuits.

Use a Pedometer to Track Steps

Pedometers are a great tool for inexpensively monitoring and tracking improvements in lifestyle activity. Initially, we have patients wear their pedometer for an entire week and record the total number of steps they take each day. From there we encourage people to try to increase the number of steps they take each day of the week, with an end goal of achieving 10,000 or more steps per day. We try to encourage people to check their pedometer throughout the day and see if they are on track to meet their goal. This is a good behavioral tool and can really help keep motivation up.

Pedometers vary widely in terms of cost and quality. Rather than opt for the least-expensive models, which studies have shown to generally be quite inaccurate, advise clients to acquire good-quality pedometers (Bassett et al., 1996). You may even want to consider offering clients a pedometer branded with your club or business logo. An accurate device that can monitor changes in activity can be purchased for about \$30. Finally, pedometers should be firmly attached to the belt or waist band to achieve reliable and accurate results. Units that are slipped into a pocket or a purse will provide the individual with useless information.

Three-dimensional accelerometers can be a useful, higher-tech way to measure physical activity and estimate energy expenditure over a period of time. They are more costly than a pedometer, but also offer much more information to the user. The devices are worn on the hip, much like a pedometer, for a set number of days. This data is stored in the device until it is uploaded to a computer. Software can then provide daily or even weekly plots of energy expenditure, which can be useful in calculating the time spent doing vigorous, moderate and light activity during the waking hours.

[Check out ACE's reviews of the latest pedometers and activity monitors here.](#)

Promote Moderate-intensity Lifestyle Activities

It is important to remember that the rate at which activities are done will make a significant difference in the amount of energy expended. Many people mistakenly believe that lifestyle activities are only done at a "light" intensity. This is not the case. In fact, rather than advising clients to take a stroll around the mall, they should be encouraged to perform activities at a purposeful pace or "moderate" intensity. This is equivalent to a pace of 3–5 METS. A useful guideline is to advise clients to walk at the pace that they would use if they were late for an appointment. Even deconditioned adults can sustain this pace for several minutes.

Encourage Breaks in Sitting Time

Brisbane, Australia, recently reported that individuals who took frequent breaks in sitting time had smaller waist circumferences, lower BMIs and healthier triglyceride and glucose levels compared to those who remained sedentary for prolonged periods of time (Healy et al., 2008). Therefore, people who have sedentary jobs should be encouraged to get up and move throughout the work day. A digital watch or computer timer can be set to give an hourly reminder to get up and go for a quick three-minute walk. Quick walks or stair climbing can also be done during commercial messages while watching television. This has an added benefit of reducing the impulse to snack as well.

While lifestyle activity should not be considered a replacement for traditional workouts, it is an important key to improving and maintaining one's overall health and well-being. It also offers you an effective way to encourage your clients to stay active between workouts, while also enhancing their fitness and weight-loss efforts.

References

Andersen, R.E. and Jakicic, J.M. (2009). Interpreting the physical activity guidelines for health and weight management. *Journal of Physical Activity and Health*, 6, 5, 651–656.

Andersen, R.E., Crespo, C.J., Bartlett, S.J., Cheskin, L.J. and Pratt, M. (1998). Relationship of physical activity and television watching with body weight and level of fatness among children: Results from the Third National Health and Nutrition Examination Survey. *Journal of the American Medical Association*, 279, 938–942.

Bassett, D.R., et al. (1996). Accuracy of five electronic pedometers for measuring distance walked. *Medicine & Science in Sports & Exercise*, 28, 8, 1071–1077.

Blair, S.N., Kohl, H.W. and Paffenbarger, R.S. (1989). Physical fitness and all-cause mortality: A prospective study of healthy men and women. *Journal of American Medical Association*, 262, 2395–2401.

Institute of Medicine. (2010). [Dietary reference intakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein and amino acids](#). Retrieved November 24, 2010.

Haskell, W.L., et al. (2007). Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Medicine & Science in Sports & Exercise*, 39, 8, 1423–1434.

Healy, G.N., et al. (2008). Breaks in sedentary time: beneficial associations with metabolic risk. *Diabetes Care*, 31, 4, 661–666.

Jakicic, J.M., et al. (2001). American College of Sports Medicine position stand. Appropriate intervention strategies for weight loss and prevention of weight regain for adults. *Medicine & Science in Sports & Exercise*, 33, 2145–2156.

Jakicic, J.M., Wing, R.R., Butler, B.A. and Robertson, R.J. (1995). Prescribing exercise in multiple short bouts versus one continuous bout: Effects on adherence, cardiorespiratory fitness, and weight loss in overweight women. *International Journal of Obesity*, 19, 893–901.

Morris, J.N. (1994). Exercise in the prevention of coronary heart disease: Today's best buy in public health. *Medicine & Science in Sports & Exercise*, 26, 807–814.

Saris, W.H., et al. (2003). How much physical activity is enough to prevent unhealthy weight gain? Outcome of the IASO 1st Stock Conference and consensus statement. *Obesity Review*, 4, 2, 101–114.

U.S. Department of Health & Human Services (2008). *2008 Physical Activity Guidelines for Americans: Be Active, Healthy and Happy*. www.health.gov/paguidelines/pdf/paguide.pdf

U.S. Department of Health and Human Services. (1996). *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, Ga.: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.

Wijndaele, K., et al. (2010). Increased cardiometabolic risk is associated with increased TV viewing time. *Medicine & Science in Sports & Exercise*, 42, 8, 1511–1588.



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