

Modern Times Require Modern Solutions

One of the core beliefs shared by the entire team at dotFIT is that everyone has the ability to reach and maintain their health, fitness and weight control goals. We understand that everyone may not have the right tools, information or continuous motivation they need to be *and stay* successful. dotFIT is committed to using technology and current innovations to provide progressive solutions that address modern day issues including the complex biological and environmental factors that drive unwanted weight gain. In doing so, we are confident that together we *can* turn the tide on the obesity epidemic one person at a time.

The Internet

The internet simultaneously reaches millions of people around the world, allowing instantaneous communication and access to various products and services, 24 hours a day. Nearly three-quarters of the U.S. population have internet access and many seek weight loss, nutrition, exercise and medical information online.¹ Delivering internet-based weight control solutions enables people to obtain services they would not normally seek due to cost, location or time constraints. Online programs can also provide social support and personalized feedback while allowing clients to remain anonymous, thus avoiding any potential embarrassment with face-to-face programs. Indeed, internet weight loss programs which incorporate behavioral principles have been shown to improve weight loss.^{2,3,4} Features of online weight loss programs that are associated with producing positive results include a structured plan of delivering the program, continuous human contact, individualized feedback from a coach and social support in the form of message boards and motivational stories.⁵ Other strong predictors of weight loss include activity and intake calculators, progress charts and journals. Web-based programs have also proven to help maintain weight loss – specifically with the use of web chats and other modes of social support.^{5,6} Hence, a properly structured internet-based weight control program is a feasible method to help meet the needs of those seeking weight loss and maintenance.

Self Monitoring and Regulation

Recall that a major challenge with controlling weight in the 21st century is the invisibility of the slow and steady weight gain that eventually leads to overweight and obesity. Eating a mere 10 extra calories per day above one's daily needs results in one pound gained by the end of a year and 30 pounds of unintentional weight gain by the midpoint of one's lifespan. Not knowing or seeing weight gain occurring is half the battle, and gaining continuous visibility of daily energy imbalances allows people to self-regulate food intake and movement. That is, adjustments can be made to the amount of food that is consumed and activity performed in order to successfully manage weight. The modern day lifestyle consists of continual access to large quantities of energy dense, inexpensive food coupled with the innate tendency to eat and take the path of least resistance. Purposeful alteration of behavior may be the only non-invasive way to consistently offset these forces. Having awareness of daily energy balance allows people to see if they are maintaining a calorie deficit for weight loss. Balance for weight maintenance or surplus for weight gain. This in turn provides critical decision-making information – whether to alter food intake or increase activity to stay on goal.

Regular Weigh-ins

All studies investigating self-weighing as a weight control strategy have demonstrated that more frequent weigh-ins lead to greater weight loss⁷, maintenance of lost weight and prevention of weight gain.^{8,9,10} Research studies also validated the reverse: the less often subjects weighed in, the lower their chance of success including weight gain for those who seldom or never checked their weight.⁷ Presumably by the time they weighed themselves, if ever, it was too late to undo the damage without a significant lifestyle change, hence they continued to gain weight.

Figure 1 displays the striking results of regular weighing. Subjects who consistently weighed themselves over time continued to reduce body mass index, which is completely opposite of today's norm.⁷ Individuals weighing multiple times a week reported that anytime their weight was not trending in a desired direction they would make a simple adjustment. Sometimes eating slightly less by skipping a meal or altering exercise will allow them to maintain an easy, steady course to the goal.¹¹ The simple act of weighing in each day (or most days) influences people to “think twice” before consuming something that might result in an undesirable weigh-in. While some nutrition and weight loss experts caution against frequent weighing in an attempt to avoid potential disordered behaviors, cases of regular weighing causing eating disorders are not supported by the literature

while the potential for preventing weight gain and aiding weight loss is considerable. Studies on college freshmen showed that daily weighing helped maintain body weight and avoid the “Freshman 15” whereas those who did not weigh daily gained nearly seven pounds in ten weeks.¹¹ In essence, checking weight regularly appears to help people self-regulate eating and activity behavior, and thus manage their weight.

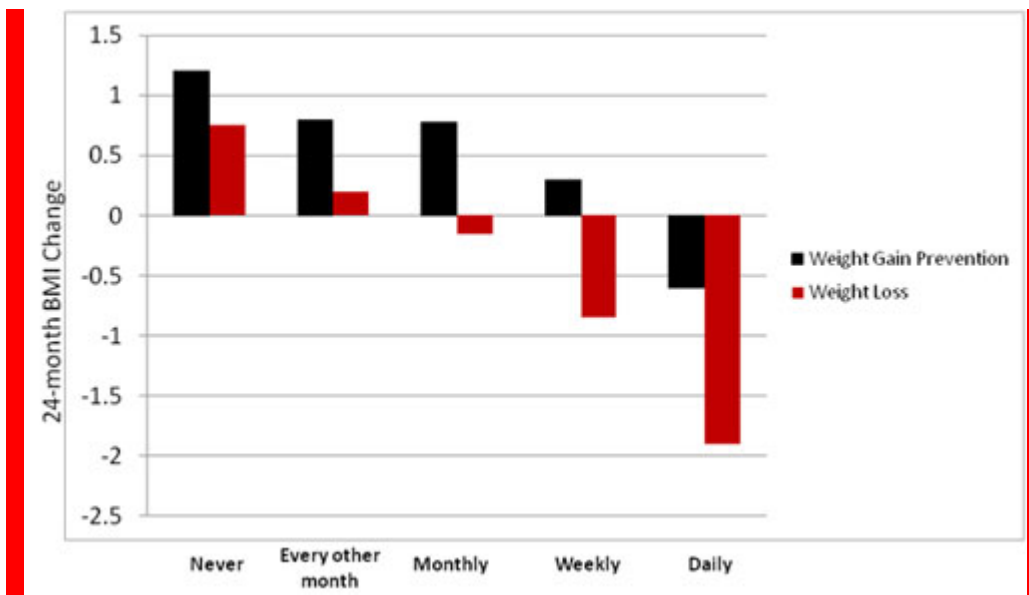


Figure 1 shows the results of weighing frequency: the dark bars represent BMI change in subjects attempting weight loss. The white bars represent BMI change in subjects attempting to prevent weight gain. These results illustrate the strong relationship between regular weighing and weight-loss success. Self-weighing in weight gain prevention and weight loss trials. Linde JA. 2007. Ann Behav Med. Reproduced with permission of Springer.

Lifestyle Activity

Short bouts of activity that are incorporated into one’s daily routine such as short walks, house chores, yard work, climbing stairs and playing with kids is considered lifestyle activity. Calorie restricted diets combined with lifestyle activity changes have been shown to be equally effective at producing weight loss as dieting combined with traditional structured aerobic exercise (e.g stationary bike, brisk walking).^{12,13,14} Adding physical activity into daily routines is also important for maintaining weight loss.^{15,16} Since every calorie consumed or stored as body fat can be burned with activity, any movement is beneficial because a greater calorie burn allows more food to be consumed or faster weight loss results. Therefore, keep in mind that any activity that can be performed standing or pacing instead of sitting instantly increases calories expended, a simple and practical solution for those who believe, often incorrectly, that they have a slow metabolism or

impaired thyroid gland. The table below provides a comparison of the calories burned doing lifestyle activities while sedentary versus active.

Table 1 Examples of Sedentary and Active Energy Expenditures for Common Activities*

For a 150 pound individual

Sedentary		Active	
Sitting at a sporting event, spectator 1 hr.	108	Basketball, casually shooting baskets 1hr.	322
Buying Wood presplit	0	Chopping/Splitting wood 30 mins	214
Reclining for 30 min of phone calls	36	Standing for 3 10-min phone calls	64
Using Dishwasher	0	Washing Dishes 30 min	82
Hiring someone to clean/vacuum	0	Vacuuming for 30 min	125
Waiting 30 min for pizza delivery	36	Cooking for 30 min	89
Using a leaf blower for 30 min	125	Raking leaves for 30 min	154
Riding lawn mower	89	Push-mowing for 60 min/wk	392
Using car wash 1x/mo	18	Washing and waxing car, 1 h/mo	322
Letting dog out the back door	2	Walking dog for 30 min	107
Sending e-mail to colleague, 4 min	5	Walking 1 min, talking (standing) 3 min	8
Taking elevator up 3 flights 1 min	1.5	Walking up Stairs 1 min	6
Letting cashier unload shopping cart 5 min	7	Unloading full shopping cart 5 min	14
Shopping online 1 h	108	Shopping at mall, walking 1 h	164
Sitting in a whirlpool for 30 min	36	Swimming, casually for 30 min	250
Riding escalator 3 times	4	Climbing 1 flight of stairs, 3x/wk in mall 3 min total	18
Parking as close as possible, 10-s walk	0.5	Parking in 1st spot, walking 3 min, 5x/wk	8
Driving 40 min, walking 5 min (parking)	87	Walking 15 min to bus stop 2x/d + riding bus for 40 min	137

* For activities that show no calorie burn on the left side of the table, it can be argued that the individual would burn calories even resting during the same period of time stated on the right side of the table. In that case, use 34 calories per half-hour of inactivity for the same person.

Current physical activity guidelines call for adults to perform two and a half hours per week of moderate intensity physical activity such as brisk walking or one hour and 15 minutes vigorous intensity activity per week to improve and maintain health.¹⁷ Performing five hours a week of moderate intensity activity results in greater health benefits and is strongly encouraged. Muscle-strengthening activity (e.g. resistance training) of all major muscle groups should be performed at least twice a week. All clients should be advised to regularly achieve these exercise recommendations, and lifestyle activity can serve as an adjunct weight control tool to increase daily expenditure. For clients who aren't willing or feel they cannot perform traditional exercise, much less meet these daily guidelines, creating ways for them to move more with lifestyle activity is an important first step.

Body Monitoring Devices

Pedometers and other body monitoring devices give users instant feedback and quantify their activity level (e.g. number of steps, minutes of physical activity) which provides motivation to become more active. A systematic review of research studies using pedometers revealed that they are associated with significant increases in physical activity, decreases in BMI and other factors beneficial to health.¹⁸ In addition to wearing a pedometer, setting a daily step target and tracking daily steps are helpful strategies. Other feedback devices provide daily energy expenditure and energy balance data, which are more specific to weight control. In both cases, the continuous feedback raises awareness of activity level, allowing the user to immediately change their daily routine and food choices to avoid an energy imbalance and unwanted weight changes. The psychological impact of this is enormous, since the client is able to instantly correct small overages in food intake instead of ruining the entire day or week and “starting over on Monday.”

The dotFIT Program

The dotFIT nutrition and fitness program addresses the issues of today by providing awareness of daily energy balance including daily and weekly predicted weight loss or gain when food is logged. Daily calorie intake and burn targets are provided based on the goal and client parameters. To increase awareness of environmental influences on food intake and current eating habits, an easy-to-use optional food logging application with an extensive CalorieKing™ food database is incorporated along with various educational tools, tips, articles and videos. Regardless of whether food is logged, each weekly weigh-in is followed by individualized feedback based on weight changes and specific suggestions are given as needed. Progress charts, reports and daily journals are provided as they have also been shown to improve weight loss outcomes.

To increase client success and adherence, there are various options for coaching – either by email, phone or in person with a fitness professional. Extensive social support is provided with web chats, message boards and videos. These features give people the information they need to self-regulate behavior and include strategies for how to make those needed adjustments. In addition, dotFIT is an internet-based service allowing for easy and widespread access. Other elements of the program include

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- Numerous menus designed by registered dietitians – including athletic performance, vegetarian, specialty (Mediterranean diet, lactose intolerant, 40/30/30) and lifestyle menus (healthy fast food, night out)
 - A vast library of articles, videos and frequently asked questions on weight loss, health, exercise, nutrition, performance, women’s health, senior health and youth topics
 - Personalized dietary supplement recommendations based on a medical screening and goals
 - Walking and exercise programs designed by the National Academy of Sports Medicine. Programs are based on the goal, desired workout frequency, duration and type of equipment available and video demos are included for each exercise
 - Option to add a body monitoring device to track calories burned, steps and activity

Finally, fitness professionals are provided with suggested session formats including ideal times to schedule sessions, duration, and topics. Effective coaching techniques, goal setting and methods for conducting client sessions will be presented in the next section.

Summary

The dotFIT platform, nutritional strategies and partnership with certified professionals deliver a comprehensive 21st century solution which addresses the challenges of weight control in today’s environment. Fitness professionals are an invaluable part of this solution as they offer the essential human touch, which technology cannot duplicate. As new methods and tools emerge with science and technology, dotFIT is committed to providing fresh solutions and partnering with those who are passionate and committed to helping others succeed through fitness.

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