Weight Management Strategies – A Holistic Approach

The World Health Organization has estimated that by 2030, the obesity rate in the United States will increase to 70%. The steady rise in obesity is already causing a significant strain on the health care system to the point that it affects the US economy. The pertinence of the obesity problem has caused Universities and government organizations to allocate increased resources towards researching the leading factors and the major roadblocks of successful weight loss. In conjunction, weight management has become a leading responsibility of personal trainers. Therefore, it is integral for personal trainers to understand both the health risks of obesity as well as proper management procedures. Countless clinical trials have found that dieting alone is insufficient to cause long-term weight loss. More recent research has focused on the specific effects of sitting and lack of exercise on public health, finding that both appear to be bigger threats to obesity than previously expected.

Weight loss and/or weight gain are products of energy balance and lifestyle behaviors. Hunger itself is stimulated by the hypothalamus, and is the physiological sensation that leads to the urge to eat. Unsatisfied hunger will lead to appetite, which is often blamed for overconsumption and associated increases in energy input. Routine consumption of food without increased energy expenditure will lead to uneven energy balance, causing the excess energy to primarily be stored as fat. Recent research suggests that it is more the decline in activity that’s the major problem.

Based on the number of diet books published in the last decade, a common fallacy is that controlling energy input alone can cause significant long-term weight loss. Clinical trials have consistently proven that diet alone will be ineffective for long term weight management. A recent analysis published in The American Journal of Medicine of the National Health and Nutrition Examination Survey (NHANES) found that increases in both body mass index (BMI) and waist circumference were correlated to decreases in physical activity. The research group out of Stanford University found that from 1994 to 2010, lack of physical activity in US adult women increased from 19.1% to 51.7%, while daily caloric intake stayed relatively stagnant. The data indicates that it is actually a decrease in movement, and not increased caloric consumption, that is responsible for recent increases in BMI and waist circumference. It is also proposed that along with the lack of movement, Americans now tend to eat processed food that promotes fat gain due to insulin response, even though the caloric density is not much different.

The effects of sitting and lack of exercise have also been strongly correlated to health risks, especially in older populations. Excessive sitting is a risk factor for obesity, depression and death. Research out of Glasgow Caledonian University labeled excessive time sitting as a “new public health enemy,” especially in aging populations where almost 75% find themselves seated for more than 8 hours a day. Similarly, new research published in the Mayo Clinic Proceedings found that two hours of sedentary behavior can counter the cardiovascular benefits (relative risk for disease and health issues) obtained through 20 minutes of exercise. In fact, a person that sits forty hours per week but performs aerobic exercises three times a weeks is going to be experience a negative health balance unless the intensity is significant – which is clearly not common. The important take away from this study is that not only should a personal trainer focus on current sessions, but also improve lifestyle factors that reduce sedentary activities and increase overall physical
activity. For example, individuals that are generally sedentary except for 30-40 minutes of exercise three or four times a week are more at risk than individuals who do not perform structured exercise, but live a physically active life. Simple tips such as meeting friends for walks or playing tennis instead of going to the movies and even washing one’s own car by hand can drastically increase physical activity without structured exercise, resulting in increased caloric expenditure.

When targeting correct weight management, a personal trainer should address caloric intake, caloric content, food timing, as well as type of activity, total energy expenditure and lifestyle behaviors. In order to indentify an effective caloric intake for weight loss, energy expenditure calculations should be utilized by personal trainers. Calculating resting metabolism using either the Cunningham Lean Mass Equation or the Revised Harris-Benedict Equations along with estimating activity factor will predict daily energy requirements if they not calculated using a 24 hour recall. A suitable caloric intake for weight loss is 200-300 calories less than the estimated daily output to preserve lean mass. It is important to avoid “fad” diets and “cleanses” which cause quick, drastic reduction in weight – normally by loss of metabolic water and protein; followed by equal and sometimes greater weight gains. These diets typically contribute to the “Yo-Yo” effect many experience in their weight overtime.

Novel research from the University of Missouri found that incorporating a more holistic approach to weight management, called “Eat for Life,” may be promising. A key part of the strategy was a focus on internal cues such as hunger and satiation instead of the statistical data of a scale. Participants were found to have higher levels of body appreciation and decreased incidences of disordered eating. Potentially successful strategies used for weight loss included preparing meals at home instead of eating out, eating slowly and enjoying the moment, avoiding liquid calories, and voicing consumption goals to family and friends.

Regardless of the dietary practices, prescribing appropriate exercise is essential to successful weight management. More and more evidence points to inadequate movement and exercise, over increased caloric intake, as the main problem with the increasing BMI measures around the globe. In addition to lifestyle education and efforts towards a more active day, exercise leaders must emphasize training aimed at the maximal amount of work performed in the given time. Likewise prescriptions should include both resistance exercises and aerobic training in order to preserve lean mass and increase caloric expenditure.

The continual rise of obesity in the United States and its effect on metabolic disease will most likely put increased emphasis on weight management as a job description of personal training. Exercise mediates the chemicals associated with inflammatory obesity and can stop the onset of diabetes and therefore makes it a primary prevention strategy. Successfully integrating adequate exercise volume in conjunction with promoting an active lifestyle are key components to both successful weight management and disease prevention. A comprehensive approach that identifies key factors of nutrition, exercise and lifestyle should be integrated in each situation. The following identifies some categorical strategies and guidelines to help in the process.
General exercise, nutrition and lifestyle guidelines for weight management:

- **Lifestyle Adjustments** – increase unstructured activity and promote healthy social life
  - Researchers from UT Southwestern Medical Center suggest that moving around, even while seated at an desk, can reduce the negative effect of sedentary behavior on cardiovascular health
  - Set a timer to up from your desk every hour to walk around the office, use the stairs in your office, include an evening bike ride around the neighborhood - all will increase the physical activity factor and reduce risk
  - Try to find social events that include physical activity and reduced emphasis on consuming alcoholic beverages and empty calories

- **Exercise** – goal is to maximize caloric expenditure
  - A variety of aerobic exercises are suggested to maintain muscle balance and reduce boredom
    - Swimming, rowing, cycling or running are all applicable
  - Cardio circuits can also be used, blending anaerobic with aerobic activities
    - 3 minutes of jogging separated by various bodyweight exercises such as lunges, push-ups, pull-ups and abdominal curl-ups; parcour stations exist in most parks and can be found using a quick internet search
  - Anaerobic exercises should always be included to preserve lean mass
    - Anaerobic training should be modified to reduce rest intervals and maximize volume relative to client capabilities

- **Nutrition** – focus should be on promoting healthy choices, and not on “fad” diets
  - Identify caloric and macronutrient needs based on anthropometric and activity factors
  - Identify foods through diet recall that are hindering weight loss
  - Encourage consumption of fruits, vegetables, lean proteins and whole grain products
  - Educate clients on food timing, the effects of insulin and intelligent food choices