The Question
Does weight cycling (yo-yo dieting) have any long-term adverse health effects?

Evidence-Based Resources


Evaluating the Evidence

Almost half of all adults in the United States have attempted to lose weight. Many of these individuals try diet after diet to lose extra pounds only to gain them back, creating a vicious cycle of weight loss and gain. This type of dieting is called yo-yo dieting or cycling (Stevens et al., 2015). Because many individuals try to lose weight, it is important to investigate whether this method of dieting has any long-term adverse effects.

Multiple studies (Bosy-Westphal, Kahlhöfer, Lagerpusch, Skurk, & Müller, 2015; Bosy-Westphal & Müller, 2014; Delahanty et al., 2014; Messier et al., 2014; Montani, Schutz, & Dulloo, 2015; Stevens et al., 2015) have explored the relationship between weight cycling and increased risk for adverse health effects. Unfortunately, there isn’t a clear or unanimous conclusion on whether weight fluctuation is related to development of disease or illness. Although most studies conclude there is no overall increased risk of adverse health effects, specifically from weight cycling, there may be increased risks for certain individuals and conditions.

Two diseases in which obesity is a risk factor are diabetes and cancer. Overweight individuals considered at risk for either of these diseases are often told to lose weight. A study by Delahanty et al. (2014) examined the relationship between weight cycling and incidence of diabetes. The study’s results indicated an association with increased risk of hypertension and diabetes. Messier et al. (2014) examined the effects of weight cycling by patients already diagnosed with type 2 diabetes. The results concluded there are no increased associated risks in diabetic patients. In turn, Stevens et al. (2015) investigated whether weight cycling increased cancer risk and found no evidence to indicate any overall increased risks.

Another concern associated with weight cycling is that the body may gain too much fat in comparison with lean muscle mass or there will be a negative impact on body fat distribution. Two studies (Bosy-Westphal et al., 2015; Bosy-Westphal & Müller, 2014) investigated the effects of weight cycling on body mass. Although both studies indicate there is no evidence of overall adverse effects on body composition when weight cycling, Bosy-Westphal & Müller (2014) warn that dieters with a starting weight within normal limits may experience adverse effects. Evidence indicates that severe weight loss in individuals who are considered within normal weight range may regain a higher amount of abdominal fat mass.

Although some studies in the past have associated weight cycling with mortality, many didn’t differentiate weight cycling that is initiated by intentional weight loss from that initiated by illness. One recent study explored the differences. Murphy et al. (2014) found that in older adults (aged 70 to 79), there is a possible relationship between unintentional weight change and a higher risk of mortality. However, results from this study indicated that there is no relationship between intentional weight change and the risk of mortality.

In conclusion, although study results are divided on the risks, there is evidence that suggests weight cycling does not have overall negative effects on health. These findings may be significant because estimates indicate that nearly half of Americans have yo-yo dieted while attempting to lose weight.

Applying the Results and Making a Decision

Maintaining a stable weight over time is definitely the best practice. However, overweight people should not stop exercising and trying to lose weight just because they have a history of cycling. Studies have shown that cycling can be beneficial when attempting to lose weight.
Because there is no associated overall increased risk for adverse health effects, overweight and obese individuals should be encouraged to attempt weight loss even if the weight will eventually be regained (Stevens et al., 2015).

**Reevaluating Process and Identifying Areas for Improvement**

A history of unsuccessful weight loss should not dissuade an individual from future attempts to shed pounds, nor should it diminish the role of a healthy diet and regular physical activity. Eating healthy foods and participating in routine physical activity has shown the best results for maintaining a stable weight (Guth, 2014). Those who practice yo-yo dieting should not give up, and if they gain back the weight, there is evidence that losing it again will not be detrimental to their health.