# How resistance training protects muscle during weight loss with GLP-1 drugs



Weight loss injections, particularly GLP-1 agonist medications such as Mounjaro and Wegovy, have become notable aids for individuals struggling to shed excess pounds. These drugs function by reducing appetite and slowing digestion, which collectively help users consume fewer calories and lose weight. However, a critical aspect that accompanies weight reduction is the unintended loss of lean body mass, comprising muscles, organs, and bones—the components of the body excluding fat.

Maintaining lean mass is essential as it supports strength and metabolism, influencing overall quality of life. When the body loses weight, it often uses muscle tissue as an energy source, with studies indicating that 20 to 30 per cent of weight lost during dieting can come from muscle, especially where protein intake or physical activity levels are insufficient.

The preservation of muscle is important for multiple reasons. Firstly, muscle tissue burns more calories at rest compared to fat, thereby maintaining a more robust metabolism and aiding in long-term weight management. Secondly, muscles are vital for everyday activities such as carrying shopping or climbing stairs. Retaining muscle mass can also help maintain higher energy levels and reduce the risk of regaining weight.

Research has consistently demonstrated that resistance training, or strength training, is effective in minimising muscle loss during weight loss, whether the weight loss is due to dietary changes or the use of medication. Jack McNamara, Senior Lecturer in Clinical Exercise Physiology at the University of East London, states, “Even though specific studies looking at GLP-1 agonist drugs combined with exercise are still limited, early evidence suggests that people who regularly do resistance workouts tend to retain more muscle than those relying purely on the drug or diet changes.”

Resistance training includes exercises that create muscle contraction against external resistance, such as weights, resistance bands, or body weight. This form of exercise signals the body to preserve muscle tissue, strengthening the involved muscles to handle future challenges. When in a calorie deficit, these exercises promote fat burning while preserving muscle. Additionally, muscle tissue's higher caloric burn rate supports sustaining weight loss over time.

The benefits of resistance training can be gained even through short sessions a few times a week. One study highlighted that just 11 minutes per session, performed three times weekly, may elicit positive changes. These exercises do not necessarily require a gym; bodyweight movements such as push-ups, lunges, and planks are effective starting points. Progressively, users may introduce resistance bands, free weights, or household items like water bottles or book-filled backpacks to increase resistance as strength grows.

Complementing resistance training with moderate cardiovascular activities—such as brisk walking, cycling, or swimming—can also be beneficial. Aerobic exercise helps burn additional calories and supports heart health, working well alongside strength training to reduce body fat.

Some individuals on weight loss medication express concern about feeling tired or light-headed during exercise. Monitoring one's body's response is important, particularly when beginning a routine. Starting with short strength training sessions segmented throughout the day may help manage this, making workouts less daunting and more manageable within busy schedules.

Additional guidance for those new to resistance exercise includes: - Starting slowly with simple bodyweight moves like squats, push-ups (modified on knees if necessary), and planks. - Using affordable and portable resistance bands to perform exercises targeting major muscle groups such as biceps curls, shoulder presses, and glute bridges. - Focusing on working large muscle groups—including legs, back, chest, shoulders, arms, and core—to support daily functionality and reduce injury risk. - Prioritising good technique by moving slowly and with control to prevent injuries. - Tracking progress in repetitions, weights used, or balance improvements as motivation.

Weight loss medications have indeed been transformative for many who face challenges in losing weight. Nevertheless, medication alone does not prevent the loss of muscle mass or maintain overall strength. Incorporating resistance training helps safeguard muscle, supports metabolism, and boosts energy, making daily tasks easier and more enjoyable.

Combining these treatments with a balanced diet, regular resistance workouts, and some cardiovascular exercise creates the best conditions for preserving lean mass and achieving sustainable weight loss outcomes. This holistic approach emphasises that weight management is not solely about the scale but encompasses preserving health, mobility, and long-term wellbeing.

The Independent is reporting on the growing understanding of how to maximise benefits from weight loss treatments while mitigating potential drawbacks like muscle loss.

Source: [Noah Wire Services](https://www.noahwire.com)

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