



*Book Supplement*

**Drug Treatment for Involuntary Weight Loss**

Agent	Notes
Megestrol acetate (Megace®)	Progestational agent; appetite stimulant. Appetite improvement, weight gain and improvement in quality of life ratings. In patients with anorexia and cachexia in AIDS and cancer patients have shown increase weight and sense of well being; however, there is no survival advantage and there may be an increased rate of death.
Cyproheptadine	Serotonin agonist. Appetite improvement. Slight improvement in appetite in patients with cancer cachexia without effect on weight.
Multivitamin	A randomized controlled trial of a multivitamin compared with placebo in healthy community-dwelling older persons (without IWL) found that participants receiving the vitamin had better micronutritional status, improved lymphocyte function and a reduced incidence of clinical infections.
Tetrahydrocannabinol (Dronabinol®)	Marijuana derivative, appetite stimulant. Minimal weight gain. In cancer patients, megestrol acetate provided better anorexia palliation compared with dronabinol alone. Combination therapy of megestrol acetate plus dronabinol did not confer additional benefits. Benefits overall were marginal.
Human growth hormone	Anabolic. Increased lean body mass and decreased fat mass. In a randomized controlled trial of growth hormone and sex steroid administration in healthy elderly women and men, growth hormone with or without sex steroids increased lean body mass and decreased fat mass, but was associated with frequent adverse effects (fluid retention, gynecomastia, orthostatic hypotension). No change in overall weight. In patients with HIV-associated wasting, growth hormone treatment was associated with gains in weight and lean body mass, reduction in body fat, and no change in quality of life indicators. The effects of reversal of wasting on survival and disease progression and long-term safety remain to be determined
Testosterone	Anabolic. Modest increase in lean body mass. Long-term safety remains to be determined especially with respect to prostate cancer and cardiovascular disease. Not specifically studied in persons with involuntary weight loss.
Oxandrolone	Anabolic steroid. Weight gain. In patients with COPD-associated weight loss, treatment was associated with modest weight gain (approximately 5 pounds). 38% of patients experienced side effects (edema, elevated transaminases, musculoskeletal complaints, androgenic side effects in

women).

Thalidomide

Reduction in TNF- $\alpha$  level. Weight gain. In patients with AIDS-associated wasting. There was a statistically significant increase in viral load. 30% of patients treated with thalidomide discontinued therapy because of drug-related side effects. In inoperable pancreatic cancer, patients treated with thalidomide lost less weight but there were no differences in survival, functional status, or quality of life.

AIDS = acquired immunodeficiency syndrome; COPD = chronic obstructive pulmonary disease; HIV = human immunodeficiency virus; IWL = involuntary weight loss; TNF- $\alpha$  = tumor necrosis factor- $\alpha$ .