

## Use of Clenbuterol Associated with Weight Loss

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**Introduction:** Clenbuterol is a long-action adrenergic agonist that has several pharmacologic actions in humans. Clenbuterol in high doses can increase protein deposition and lipolysis similarly to anabolic steroids and is there by abused for bodybuilding and weight loss effects.

**Aim:** This systematic review aimed to summarize the existing scientific literature to understand the effects of clenbuterol on weight loss and muscle gain and consequently the possible side effects.

**Methods:** Literature review was conducted using the scientific data bases as Science Direct and Pubmed until April 2019, using search expressions “clenbuterol”, “side effects of clenbuterol”, “clenbuterol and weight loss” and “clenbuterol and bodybuilders”. The articles were select first by title and abstract and later it was made integral reading.

**Results/Discussion:** From the analysis of the studies described was found that beta-3 receptors are found on adipocytes and agonism has been shown to encourage lipolysis. Clenbuterol causes lipolysis and is noted to be a nutrient partitioning agente in skeletal muscle fiber, leading to increased muscle deposition.

**Conclusion:** Clenbuterol toxicity is clinically similar to toxicity from other beta adrenergic agonists and may result in nausea, vomiting, palpitations, tachycardia, hypotension, hyperglycemia, hypokalemia and a metabolic acidosis with increased lactate concentration. In addition, clenbuterol toxicity may be life threatening.

### Biography:

Ana Lúcia Baltazar is a Professor in Coimbra Health School/IPC for the graduated course of “Dietetic and Nutrition”. She is a PhD candidate in “Ciencias de l’alimentación”, University of Valencia, Spain with certifications in various pos-graduated studies, Food Safety - HACCP auditor and a Master in Occupational Safety. A dedicated and qualified Nutritionist, with more than ten years of experience, a strong technical background, proven in management skills and an “agent for change”. Exceptional experience in monitoring progressive nutrition and food science status and providing training, knowledge of food safety requirements and quality standards in the food sector.