

## REVIEW ARTICLE

# STEROIDAL HUMAN PERFORMANCE-ENHANCING AGENTS

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### ABSTRACT

Steroidal human performance-enhancing substances, including anabolic-androgenic steroids (AAS), have played a significant role in enhancing athletic performance and body image. These agents, such as testosterone, dihydrotestosterone and nandrolone derivatives, promote muscle growth, increased endurance and aid in faster recovery by influencing the process of building proteins, maintaining nitrogen balance in the body and generating red blood cells. Despite their performance benefits, steroidal agents are associated with serious health risks, including cardiovascular issues, liver toxicity and hormonal imbalances, which pose ethical and health challenges. Recent developments in the synthesis and modification of these compounds have focused on improving efficacy while attempting to reduce adverse effects. This review explores the mechanism of action, usage patterns and side effects of steroidal agents, shedding light on their impact on sports and society. Furthermore, the review discusses novel developments in anabolic steroid research aimed at mitigating the detrimental effects associated with long-term use.