

HORMONAL SUPPLEMENTS

Hormone supplement	Putative effects in athletes	Documented effects	Athlete/sport association
Adrenocorticotrophic hormone and Cortisol	Improve endurance performance and psychologic sense of well-being	No improvements in performance, but did decrease complaint of fatigue during submaximal exercise	Endurance athletes: distance runners and cyclists
Androstenedione and dehydroepiandrosterone	Increases muscle mass and strength, reduction in body fat	No significant improvement in muscle mass or strength or reduction in body fat	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Erythropoietin	Increase in endurance performance	Improves both oxygen-carrying capacity of the blood and time until exhaustion	Endurance athletes; distance runners and cyclists
Growth hormone	Increases muscle mass and strength, reduction in body fat	Increases in nonmuscular lean body mass, but no improvements in performance	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Human chorionic gonadotropin	Increases muscle mass and strength via increasing testosterone production, maintain testicular function while using anabolic-androgenic steroids	Increases testosterone levels, maintains spermatogenesis, but previous anabolic-androgenic steroid users still qualify as hypogonadal even with human chorionic gonadotropin use	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Insulin	Increases muscle mass	No empiric demonstration of effects as yet in athletes	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Insulin-like growth factor	Increases muscle mass and strength, reduction in body fat	Improves muscle mass and recovery from injury in rodents	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Testosterone and anabolic-androgenic steroids	Increases muscle mass and strength	Improves lean body mass and strength	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers
Thyroxine and triiodothyronine	Increase overall rate of metabolism, reduction in body fat	Improved weight loss in certain obese individuals, but no known effects on athletic performance	Power athletes; weightlifters, sprinters, throwers, football and hockey players, and wrestlers