



# DIETARY PROTEIN FOR ATHLETES: FROM REQUIREMENTS TO OPTIMUM ADAPTATION

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*Designed by @YLMsportScience*



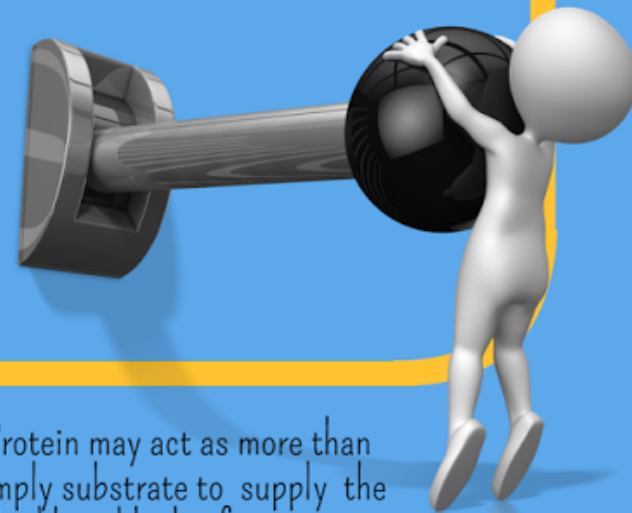
# 20- 25G

Protein consumption can enhance rates of muscle protein synthesis and possibly lower rates of muscle protein breakdown, thus improving muscle net protein balance

The improvement in net protein balance appears to accumulate to promote greater protein retention in the case of resistance exercise and may enhance training-induced adaptations with endurance training

A dose of protein that appears to maximally stimulate muscle protein synthesis appears to be in the range of 20-25 g, although this estimate may be lower for lighter athletes (i.e. <85 kg)

## RECOVERY ADAPTATION



The rate of digestion of purportedly nutritionally equivalent proteins affects the response of muscle protein synthesis

Leucine in particular occupies a prominent position and may well be critical in enhancing protein-mediated recovery and adaptation

Protein may act as more than simply substrate to supply the building blocks for protein synthesis and may be an important trigger to affect phenotypic changes induced by exercise

# no TIME



# **TO WASTE!**



It is safest to state that athletes who are interested in performance need to consume protein as soon as possible after exercise

To optimize the ratio of fat-to-lean tissue mass loss, athletes are advised to ensure that they lower their carbohydrate intake to 40% of their energy intake and increase their protein intake to 1.8–2.7 g/kg/day

An economical, practical, and efficacious beverage for athletes to consume after exercise is milk. For the athlete who suffers from lactose maldigestion, there are a number of practical options such as pre-treated lactose reduced milk