DIETARY PROTEIN for Training Adaptation and Body Composition

Risk of deficiency (%)

Estimated average requirement

Recommended daily allowance

"Athletic optimal"
- To remodel proteins within force-generating structures: muscles, tendons, etc.
- To maintain optimal function of all metabolic pathways that use amino acids
- To support increments in lean body mass
- To support an optimally functioning immune system
- To support an optimal rate of production in plasma proteins

Protein intake (g/kg body mass/day)

Weight maintenance or weight gain

Weight loss

1. Consume ~0.4–0.5 g/kg body mass per serving/meal for maximal stimulation of muscle protein synthesis when real food is ingested (vs ~0.3–0.4 g/kg body mass for isolated proteins)

2. Select leucine-rich rapidly digested protein sources, such as whey protein, to elicit a greater stimulation of muscle protein synthesis during training recovery

3. Distribute your daily protein intake in 4–5 equally spaced servings throughout the day and include a slow-releasing, protein-rich, snack at bedtime

Reference: Witard, Garthe, and Phillips IJSNEM 2019

*Intake level at which the needs of 50 percent of the population will be met; ** Intake level per day considered necessary for the maintenance of good health