

INJURY INTERVENTION

GOALS

Support muscle protein synthesis. • Preserve muscle mass. • Maintain energy balance. • Prevent large changes in normal body composition.

ENERGY REQUIREMENTS

To prevent loss of muscle mass and strength, aim for 25–30 kcal/kg. Low energy availability accelerates muscle loss especially in cases of immobility. Note, excess energy intake does not further attenuate muscle loss.

CARBOHYDRATE

Insulin is necessary for activating multiple protein building pathways. Additionally, carbs are preferred as fuel so protein can be reserved for healing and muscle repair. 3–5g/kg BW/day is recommended.

FAT

Essential for healing, recovery and decreasing inflammation. Aim for a low omega-6/omega-3 ratio to enhance anti-inflammation.

DIET

A general healthful diet full of anti-inflammatory foods and moderate alcohol intake.

PROTEIN

A decrease in physical activity can lead to a decrease in protein intake so athletes should monitor accordingly.

- 2.0 g/kg/day or even higher is recommended
- 40g prior to sleep is sufficient for overnight recovery
- High-leucine containing foods
 - ~3g leucine

MICRONUTRIENTS

- Vitamin C, A, and D: wound healing, tissue repair, & cell growth
- Calcium: skeletal support
- Magnesium: improves circulation
- Zinc: wound healing & immune function
- Copper: assists with red blood cell (RBC) formation

SUPPLEMENTS

These evidence-based supplements listed may be beneficial to add to an athlete's nutrition plan. Supplements cannot replace a poor diet.

- Omega-3 Fish Oil
- Creatine Monohydrate
- Casein Protein
- β -hydroxy- β -methylbutyrate (HMB)
*if dietary protein intake is suboptimal



CONSULT A SPORTS DIETITIAN IMMEDIATELY FOLLOWING AN INJURY

