

## Supplement Strategy for Hockey Players

### Creatine

- **Mechanism of Action:** Increases energy production during high-intensity, short-duration efforts.
- **Benefits for Hockey Players:** Improves strength, power, and repeated sprint performance on ice; may aid in lean mass gain.
- **Recommended Dose:** 5-10 g daily (maintenance)

### Beta-alanine

- **Mechanism of Action:** Delays fatigue and improves anaerobic performance.
- **Benefits for Hockey Players:** Enhances performance during repeated shifts or prolonged high-intensity skating bouts; may reduce perceived exertion.
- **Recommended Dose:** 4–6 g per day, split into smaller doses to reduce tingling (paresthesia).
- **Potential Side Effects:** Tingling sensation (paresthesia) when taken in large single doses; otherwise considered safe.



### Beet Root Juice

- **Mechanism of Action:** High in dietary nitrate, which is converted to nitric oxide (NO) in the body. NO enhances vasodilation, improving blood flow and oxygen delivery to muscles.
- **Benefits for Hockey Players:** May improve endurance, repeated sprint ability, and recovery during extended shifts or games.
- **Recommended Dose:** ~500 mL (~6–8 mmol nitrate) consumed 2–3 hours before activity.
- **Potential Side Effects:** Beet-colored urine/stools (harmless), gastrointestinal discomfort in some individuals.

### Sodium Bicarbonate

- **Mechanism of Action:** Helps delay muscle acidosis and fatigue during high-intensity activity (delays the “burning sensation in legs”).
- **Benefits for Hockey Players:** Enhances performance during repeated sprints, prolonged skating bouts, and high-intensity shifts.
- **Recommended Dose:** 0.3 g/kg body weight, taken 60–90 min pre-exercise, ideally in divided doses to minimize GI issues.
- **Potential Side Effects:** Gastrointestinal upset, bloating, diarrhea if not carefully titrated.

### Protein

- **Benefits for Hockey Players:** Supports muscle recovery, lean mass gain, and adaptation to strength and conditioning programs; helps maintain muscle during periods of caloric restriction.
- **Recommended Dose:** 20–40 g per serving post-exercise; total daily intake: ~1.6–2.2 g/kg body weight.

### Vitamin D

- **Benefits for Hockey Players:** Supports bone health, reduces risk of stress fractures, and may enhance muscle function and recovery.
- **Recommended Dose:** 1,000–2,000 IU/day (up to 4,000 IU/day safe for most); individualized based on serum 25(OH)D levels.
- **Potential Side Effects:** Excessive intake (>10,000 IU/day) can cause hypercalcemia, kidney stones, or toxicity; otherwise safe.

