

Casein Protein Overview

Why We Need It

Casein is a high-quality, slow-digesting protein derived from milk, making up about 80% of milk protein. It provides all essential amino acids, with a high proportion of glutamine, which supports recovery and immune function. Because of its slow release, casein is ideal for sustained muscle repair, especially during overnight fasting or extended periods between meals.

Functions in the Body

Muscle Preservation & Recovery

Releases amino acids slowly over 6–8 hours
Helps prevent muscle breakdown (anti-catabolic)
Supports muscle recovery during sleep or fasting periods

Bone & Immune Support

Naturally contains calcium and bioactive peptides
Supports bone mineral density
Enhances immune response and gut barrier integrity

Satiety & Weight Management

Increases fullness and reduces appetite
Slows gastric emptying, keeping you satisfied longer
Supports fat loss while preserving lean mass

Daily Recommended Intake (RDI)

Protein needs are typically:

General health: 0.8–1.2 g/kg body weight

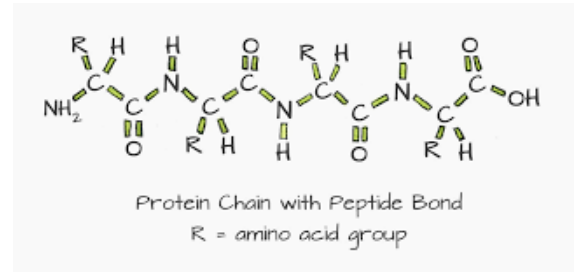
Active individuals: 1.4–2.2 g/kg

Muscle building or recovery: 1.6–2.4 g/kg

Casein is ideal as part of that total intake, especially before bed or between meals. Common dose: 25–40 g per serving

Benefits of Supplementation

- Promotes muscle recovery during sleep
- Reduces muscle protein breakdown
- Increases satiety and helps with weight control
- Supports bone health with natural calcium content
- Provides sustained amino acid release for extended anabolic support



Most Bioavailable Form

Micellar Casein: The most common form; digests slowly and forms a gel in the stomach for extended release.

Casein Hydrolysate: Pre-digested for faster absorption — less common, used in clinical settings.

Best Food Sources

Dairy-Based: Cottage cheese, Greek yogurt (especially thicker varieties), Milk (contains both whey and casein)

When & How to Take It

Before bed: 25–40 g for overnight muscle repair

Between meals: Ideal for long periods without food

Conclusion

Casein protein is an excellent supplement for muscle preservation, satiety, and overnight recovery. Its slow-digesting nature makes it a powerful tool for athletes, active individuals, or anyone looking to support lean muscle and manage hunger. Combined with a balanced diet, casein can play a key role in recovery, fat loss, and long-term muscle maintenance.