
NUTRITION, MADE PRACTICAL

Daily Nutrition Quality

An everyday routine built from what the original studies actually found

Study findings are summarized in plain language; paper titles stay off the slides.

Built from the St1c Brain nutrition wiki | 15 July 2026



Read the evidence in layers

Direct performance evidence

Twenty-nine elite race-walker data sets compared high, periodized and ketogenic low-carbohydrate strategies during three weeks of intensified training.

LIMIT · A short, specialized male-athlete trial does not define every active adult's daily carbohydrate needs.

Small controlled studies

Protein, timing and body-composition findings came from samples of 9 to 44 people; the calcium synthesis pooled 59 randomized trials in adults over fifty.

LIMIT · Acute tracer, thermogenesis and BMD outcomes are not long-term performance, fat loss or fracture outcomes.

Canonical expert synthesis

Registered expert transcripts can establish facts, recommendations and numeric targets. Local papers add protocol detail; PRIMARY REFERENCE UNAVAILABLE records access, not weaker authority.

LIMIT · Preserve uncertainty, first-person scope and clinical boundaries.

Fuel the work that matters



Protect carbohydrate availability for demanding or performance-important training.

Practical use: scale carbohydrate with session demand and recovery time; the vault does not establish one universal dose.

WHAT THE PAPER FOUND

In elite male race walkers, three weeks of intensified training with high or periodized carbohydrate improved 10 km race times by 6.6% and 5.3%; ketogenic low-carbohydrate intake increased fat oxidation but did not improve the race.

WHAT IT DOES NOT PROVE

The intervention was short and sport-specific. It does not show that every meal must be high carbohydrate or define an ordinary daily target.

Cover protein first; optimize timing second



Start near 1.5–1.7 g protein/kg/day; distribute useful protein sources across the meals that make up the day.

Practical use: up to 2.2 g/kg/day is a contextual higher target—not a universal minimum. Use bedtime protein only when it closes a real coverage or recovery gap.

WHAT THE PAPER FOUND

Forty-four young men were randomized to 12 weeks of resistance training with nightly protein or noncaloric placebo; the protein group gained more muscle and strength.

WHAT IT DOES NOT PROVE

The supplement also raised total protein and energy intake. The trial did not isolate bedtime timing or prove that everyone needs 2.2 g/kg/day.

Let timing serve the day



Choose meal timing that makes adequate intake, training, recovery and sleep easier.

Practical use: test an earlier pattern only when late intake repeatedly worsens the whole day.

WHAT THE PAPER FOUND

The same meal produced more acute thermogenesis in the morning than at night in nine young men; in 867 seven-day food diaries, a larger morning share correlated with lower total intake and a larger late share with higher intake.

WHAT IT DOES NOT PROVE

One study was small and acute; the other was observational. Neither establishes a fasting window, meal-to-bed cutoff or long-term fat loss.

Calcium is adequacy—not a stand-alone bone strategy

Cover calcium through the whole diet; do not sell a supplement as guaranteed stronger bone.

Practical use: treat fracture risk, suspected osteoporosis or persistent energy deficiency as clinical questions.

WHAT THE PAPER FOUND

Across 59 randomized trials in adults over fifty, higher dietary or supplemental calcium produced small, non-progressive increases in bone mineral density.

WHAT IT DOES NOT PROVE

Bone density is a surrogate, not a fracture outcome. The review does not establish a universal dose for younger active adults.

Pre-sleep protein is a conditional tool

Keep it only when it improves daily coverage or follows evening training comfortably.

Practical use: judge sleep, appetite and gastrointestinal comfort; exact dose is a vault gap.

WHAT THE PAPER FOUND

After one evening endurance bout, 36 healthy young men received casein, whey or placebo; both proteins increased overnight mitochondrial and myofibrillar synthesis rates.

WHAT IT DOES NOT PROVE

This was one acute tracer experiment. It did not test recovery, adaptation or performance, and it does not make bedtime protein mandatory.

Body composition is a system—not static arithmetic

Judge an intentional deficit by multi-week response, training quality, recovery and health.

Practical use: preserve sleep and spontaneous movement; recalibrate estimates instead of chasing acute thermogenesis.

WHAT THE PAPER FOUND

In 16 adults overfed for eight weeks, NEAT responses varied widely and tracked resistance to fat gain; in 10 calorie-restricted adults, shorter sleep shifted loss away from fat and toward fat-free mass.

WHAT IT DOES NOT PROVE

Both studies were small and controlled. They do not predict one person's response or supply a universal calorie deficit.

Clinical and testing questions need boundaries

Persistent symptoms or energy-availability concern

Absent or disrupted cycles, recurrent injury, severe gastrointestinal problems, clinically significant weight change or suspected low energy availability need qualified assessment.

LIMIT · The vault does not contain diagnostic criteria or treatment protocols.

Supplements and blood tests

A female-only recovery review found sparse, heterogeneous supplement evidence; the canonical blood-testing synthesis supplies an actionable framework, not individualized diagnosis.

LIMIT · A biomarker or acute metabolic change is not automatically health, fat loss or performance.

Practical implication: define the decision first; use clinician-guided testing or treatment when symptoms or abnormal results create a clinical question.

Popular rules the vault does not establish

Exact numbers

- Universal calorie deficit
- One protein minimum for every context
- Fixed carbohydrate or hydration dose
- “Optimal” blood markers

BOUNDARY · Protein has an active-adult starting range; the other values are not universal laws.

Timing and protocols

- One meal frequency
- A fasting window
- A meal-to-bed cutoff
- Mandatory pre-sleep protein
- A supplement stack

VAULT GAP · Acute and observational studies do not turn these into universal long-term rules.

Use them only as clearly labeled heuristics, personal experiments or clinician-guided decisions—not paper-proven laws.

A daily routine that matches the evidence

	Recommendation	Compiled study finding
01	Plan the day's demand	Elite race walkers: high or periodized carbohydrate supported race improvement; chronic LCHF did not.
02	Cover protein: start near 1.5–1.7 g/kg/day	Canonical synthesis supplies the range; 44 men gained more muscle and strength with added nightly protein, but timing was confounded.
03	Match recovery urgency to the next hard session	Glycogen review: prompt intake matters most when rapid restoration is required.
04	Use timing and pre-sleep feeding conditionally	Small acute studies changed thermogenesis or synthesis; none established a universal cutoff or dose.
05	Review body composition as a system	Small overfeeding and sleep-restriction studies showed variable energy partitioning.

Review the weekly pattern with CARE

Coverage

Were meals repeatable, and was protein near the 1.5–1.7 g/kg/day starting range while energy and carbohydrate matched the actual week?

LIMIT · Adjust the range to context; it is not a diagnostic threshold.

Response

What happened to training quality, recovery, sleep, hunger, GI comfort, movement and any intended body trend?

LIMIT · Small studies cannot predict one person.

Alignment

Were demanding sessions fueled and short recovery windows treated with more urgency?

LIMIT · The vault supports the direction, not one dose.

Escalation

Did symptoms, injury, menstrual disruption or surprising labs create a clinical question?

LIMIT · CARE is a heuristic, not a diagnostic score.

The vault is incomplete on everyday fundamentals

Dietary pattern

- Food quality and dietary fibre
- Fruit and vegetable patterns
- Dietary fats and cardiometabolic outcomes
- Ordinary meal construction

VAULT GAP · The current cluster is not a complete healthy-diet evidence base.

Individual prescriptions

- Low energy availability and RED-S
- Hydration and sodium
- Population-specific protein refinements
- Clinical diets and treatment

VAULT GAP · The active-adult range does not replace individualized clinical protocols.

Missing papers are access findings—not silent downgrades. Keep genuine topic gaps explicit rather than filling them from popular consensus.

THE TAKEAWAY

Let evidence set the priorities—not pretend certainty.

Fuel the work. Start protein near 1.5–1.7 g/kg/day. Let timing serve the day. Review body composition as a system. Escalate clinical questions when symptoms change the decision.

Where the vault is incomplete, keep the rule labeled as a gap, heuristic, personal experiment or clinician-guided decision.