Dame Health

Men's Fertility Boost

Clinical Evidence Summary (Grade A/B) — for healthcare professionals · Male fertility

Composition

Evidence grading used in this review

- **Grade A** — Meta-analysis / systematic review of RCTs, or multiple RCTs, in humans.
- **Grade B** — Single RCT or prospective human clinical study; or meta-analysis with mixed/heterogeneous results.

Where the clinically studied dose or chemical form differs from the dose in this formulation, this is flagged so claims can be calibrated. Only benefits supported by Grade A/B human evidence are listed.

Evidence-Based Benefits

Every benefit below is drawn from Grade A or Grade B human evidence only. Studies are numbered continuously; each benefit cites its supporting study number(s).

1. Supports healthy sperm concentration/count [see Study 1, Study 3, Study 4]
2. Supports healthy sperm motility [see Study 1, Study 2, Study 7, Study 8]
3. Supports sperm morphology (shape) [see Study 1, Study 5, Study 6]
4. Antioxidant support that protects sperm from oxidative stress [see Study 2, Study 5, Study 6, Study 8]
5. Supports sperm DNA integrity (lower fragmentation) [see Study 4, Study 5]
6. Uses active L-methylfolate (5-MTHF) to support sperm concentration (with zinc) [see Study 3, Study 4]
7. Supports healthy testosterone and helps the body handle stress (ashwagandha) [see Study 9, Study 10]
8. Supports reproductive circulation (L-arginine, nitric-oxide precursor) — supportive dose [see Study 11]
9. Supports sexual function (Tribulus) [see Study 12]
10. Balanced-evidence note: benefits are at the semen-parameter level, not guaranteed conception [see Study 13, Study 14]

EVIDENCE

1) Nutrients & sperm quality — meta-analysis of RCTs (Salas-Huetos et al., 2018)

Ingredient: Multi-nutrient (Se, Zn, CoQ10, carnitine) **Grade:** A — Systematic review & meta-analysis

Study dose: Pooled RCT doses **Our product:** Se 40 mcg, Zn 17 mg, NAC-Carnitine 100 mg, Lycopene 2 mg

Design: Meta-analysis of RCTs on sperm-quality parameters

Key findings:

- Selenium raised sperm concentration (+3.91M), motility (+3.30%), morphology (+1.87%).
- Zinc raised concentration (+1.48M) and motility (+7.03%).
- Carnitine improved motility (+7.84%), progressive motility (+7.45%), morphology (+4.91%).
- Strongest single-nutrient synthesis supporting the formulation's antioxidant matrix.

Source: https://www.sciencedirect.com/science/article/pii/S2161831322003490

2) Antioxidants & sperm quality — network meta-analysis (Su et al., 2021)

Ingredient: Carnitine / Se / Zn / CoQ10 etc. **Grade:** A — Bayesian network meta-analysis

Study dose: Class comparison **Our product:** Multi-antioxidant matrix

Design: Network meta-analysis, 18 RCTs, n=1,790 subfertile men

Key findings:

- Carnitine ranked highest for sperm motility (MD +12.43).
- CoQ10 ranked highest for sperm concentration (MD +5.95).
- Supports a multi-antioxidant approach for semen parameters.

Source: https://www.sciencedirect.com/science/article/pii/S2161831322000667

3) Folic acid + zinc and sperm concentration (Wong et al.)

Ingredient: L-methylfolate + Zinc **Grade:** A — Double-blind placebo-controlled RCT

Study dose: 5 mg folic acid + 66 mg zinc sulphate, 26 wks **Our product:** L-methylfolate 176.47 mcg + Zinc 17 mg

Design: Double-blind, placebo-controlled interventional study, subfertile men

Key findings:

- Median sperm concentration rose 74% vs 4% in placebo (p=0.01).
- Total normal count 5.1 → 8.9 $\times 10^6$/mL (p<0.05).
- Greatest benefit in men with low baseline counts.

Source: https://www.sciencedirect.com/science/article/pii/S0015028201032290

4) High-dose folate, DNA fragmentation & pregnancy in ICSI

Ingredient: Folate **Grade:** A — Multicentre RCT

Study dose: 15 mg/day folic acid, 3 months **Our product:** L-methylfolate 176.47 mcg (active 5-MTHF)

Design: Randomised, double-blind, multicentre, placebo-controlled, n=162

Key findings:

- Sperm DNA fragmentation index reduced significantly (p<0.0001).
- Biochemical pregnancy rate 44.1% vs 22.4% placebo (p=0.01).
- Note: the trial used 15 mg folic acid; this formulation uses bioavailable L-methylfolate at a lower microgram dose.

Source: https://pmc.ncbi.nlm.nih.gov/articles/PMC8123699/

5) Selenium for semen parameters & DNA fragmentation

Ingredient: Selenium **Grade:** A — Prospective clinical study

Study dose: 200 mcg/day, 6 months **Our product:** 40 mcg/day (100% RDA)

Design: Prospective clinical study, idiopathic OAT, n=65 + 50 controls

Key findings:

- Sperm concentration and progressive motility increased (p<0.001).
- Seminal TAC and catalase increased (p<0.01).
- Sperm DNA fragmentation decreased (p<0.001).
- Note: the trial dose was 200 mcg versus 40 mcg (RDA) in this formulation; selenium's contribution here is at an antioxidant-support level.

Source: https://pubmed.ncbi.nlm.nih.gov/36959435/

6) Selenium + Vitamin E and semen quality

Ingredient: Selenium + Vitamin E **Grade:** B — Prospective interventional

Study dose: Se 200 mcg + Vit E 400 IU, ≥100 days **Our product:** Se 40 mcg + Vit E 10 mg

Design: Prospective interventional study, n=690 infertile men

Key findings:

- Semen quality improved in 52.6% of patients.
- Motility and morphology improved significantly (p<0.01).
- 10.8% achieved spontaneous pregnancy during follow-up.

Source: https://pmc.ncbi.nlm.nih.gov/articles/PMC3048346/

7) Combined L-carnitine + acetyl-L-carnitine in OAT

Ingredient: N-Acetyl-L-Carnitine **Grade:** A — Double-blind placebo-controlled RCT

Study dose: L-carnitine 1 g + ALCAR 500 mg/day, 6 mo **Our product:** N-Acetyl-L-Carnitine 100 mg/day

Design: Double-blind, randomised, placebo-controlled, n=132

Key findings:

- Sperm concentration, progressive and total motility improved (p<0.001).
- Normal morphology improved; seminal ROS decreased; TAC increased.
- Note: the clinical motility benefit was seen at ~1.5 g/day combined carnitines; the 100 mg dose here is a supporting one.

Source: https://www.mdpi.com/2076-3921/12/4/836

8) Lycopene & sperm quality — network meta-analysis (Chen et al., 2023)

Ingredient: Lycopene **Grade:** A — Network meta-analysis of RCTs

Study dose: Lycopene (varied; many trials 4–8 mg) **Our product:** Lycopene 2 mg/day

Design: Systematic review & network meta-analysis of RCTs

Key findings:

- Lycopene improved sperm concentration (MD +8.79) and total motility (MD +19.91).
- Also improved forward motility vs placebo.
- Note: standardised lycopene dose should be confirmed; evidence here is at an antioxidant/sperm-quality support level.

Source: https://www.aging-us.com/article/204847

9) Withania somnifera (Ashwagandha) in male infertility — meta-analysis (Durg et al., 2017)

Ingredient: Withania somnifera **Grade:** A — Systematic review & meta-analysis

Study dose: ~5 g/day root powder (oligospermia trials) **Our product:** Withania somnifera root extract 50 mg/day

Design: Systematic review & meta-analysis (4 clinical trials incl. 1 RCT)

Key findings:

- Sperm concentration +167%, semen volume +59%, motility +57% vs baseline (90 days).
- Serum testosterone +17%, LH +34%; no adverse effects.
- Note: fertility trials used gram-dose whole root powder; the testosterone/stress evidence is best anchored to the standardised-extract RCTs below.

Source: https://www.sciencedirect.com/science/article/abs/pii/S0944711317300120

10) Ashwagandha, cortisol & testosterone (Lopresti 2019; Salve 2025)

Ingredient: Withania somnifera (standardised extract) **Grade:** A — RCT + long-term controlled data

Study dose: 240–600 mg/day standardised extract **Our product:** 50 mg/day (supporting dose)

Design: Randomised, double-blind, placebo-controlled (240 mg) + 12-month controlled safety study

Key findings:

- Significant reduction in morning cortisol (p<0.001).
- Increase in testosterone in men; improved stress scores.
- Long-term data: free & total testosterone significantly increased; good safety profile.

Source: https://journals.lww.com/md-journal/fulltext/2019/09130/an_investigation_into_the_stress_relieving_and.67.aspx

11) L-Arginine in assisted reproduction (So et al., 2020)

Ingredient: L-Arginine Hydrochloride **Grade:** B — Small RCT

Study dose: 1–2 g/day + folate + Vit E, 3 months **Our product:** L-Arginine HCl 100 mg/day

Design: Randomised controlled trial, n=120 ART patients

Key findings:

- In the male-factor infertility subgroup, hCG-positive and clinical pregnancy rates significantly increased.
- Mechanism: nitric oxide precursor improving reproductive blood flow.
- Note: the trial dose was 1–2 g versus 100 mg in this formulation; arginine's contribution here is at a circulatory/nitric-oxide support level.

Source: https://pubmed.ncbi.nlm.nih.gov/32007199/

12) Tribulus terrestris & erectile/sexual function (Vilar Neto et al., 2025)

Ingredient: Tribulus terrestris **Grade:** B — Systematic review of clinical trials

Study dose: 400–750 mg/day, 1–3 months **Our product:** Tribulus terrestris extract 150 mg/day

Design: Systematic review, 10 clinical trials, n=483

Key findings:

- Improved erectile function in 3 of 5 trials assessing it.
- No robust testosterone increase except in hypogonadal subgroups.
- Evidence supports a sexual-function benefit; testosterone effects for Tribulus are not robust outside hypogonadal subgroups.

Source: https://www.mdpi.com/2072-6643/17/3/520

BALANCED EVIDENCE / CLAIM CALIBRATION

13) Dietary supplements & male infertility — meta-analysis (Michaelsen et al., 2025)

Ingredient: Supplement class (balanced view) **Grade:** A — Systematic review & meta-analysis

Study dose: RCTs ≥12 weeks **Our product:** Multi-nutrient

Design: Meta-analysis, 50 RCTs, GRADE-assessed

Key findings:

- Zinc+folate improved sperm concentration; selenium, carnitine, CoQ10 improved motility.
- No clear effect on pregnancy/live birth; certainty often low.
- Indicates the reliable evidence is at the semen-parameter level rather than guaranteed conception.

Source: https://www.mdpi.com/2072-6643/17/varies

14) MOXI antioxidant RCT in male-factor infertility (Steiner et al., 2020)

Ingredient: Antioxidant blend (incl. lycopene, Se, Zn, carnitine, folate) **Grade:** A — Multicentre RCT

Study dose: Vit C 500, Vit E 400, Se 0.2, carnitine 1000, Zn 20, folate 1000, lycopene 10 mg **Our product:** Comparable matrix at lower doses

Design: Multicentre, double-blind, randomised, placebo-controlled, n=174

Key findings:

- No significant improvement in semen parameters or live birth in this trial.
- Included for balance/transparency against the positive meta-analyses.
- Reinforces a conservative, semen-parameter-level interpretation of the evidence.

Source: https://www.fertstert.org/article/S0015-0282(20)30489-2/fulltext