Dame Health

Pre-Pregnancy Support

Grade A/B Literature Review — a complete preconception multivitamin built on premium ingredient forms, designed to be bundled with the L-Methylfolate + Choline add-on

Composition

- Folate — Quatrefolic® (L-5-MTHF) 220 mcg · Choline (Bitartrate) 200 mg · Iodine (KI) 140 mcg · Iron (Ferrous Bisglycinate) 29 mg · Zinc (Citrate Dihydrate) 13.2 mg · Selenium (L-Selenomethionine) 40 mcg
- Vitamin A (Acetate) 400 mcg · Vitamin C 65 mg · Vitamin D (D2) 300 IU · Vitamin E (dl-α-tocopheryl acetate) 10 mg · Vitamin K1 44 mcg · Biotin 40 mcg · B12 (Cyanocobalamin) 2.2 mcg
- B-complex: B1 1.4 mg · B2 1.9 mg · B3 (Niacinamide) 11 mg · B5 5 mg · B6 1.9 mg · Magnesium (Oxide) 100 mg · Ginger Root Extract (standardised)

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. Provides active, body-ready folate (Quatrefolic) that works regardless of MTHFR gene **[see Study 1, Study 2, Study 3]**

2. Supports the folate status linked to healthy neural-tube development **[see Study 4, Study 5]**

3. Supports egg health and conception readiness as part of complete preconception nutrition **[see Study 6, Study 7]**

4. Supports healthy iron levels with gentle, well-absorbed ferrous bisglycinate (100% RDA) **[see Study 8, Study 9, Study 10]**

5. Supports healthy thyroid function for conception and early development **[see Study 11, Study 12]**

6. Supports healthy fetal growth (zinc) **[see Study 13]**

7. Supports energy metabolism and immune readiness (multi-micronutrient, support-level) **[see Study 14, Study 15]**

PRIMARY — HERO: ACTIVE FOLATE (QUATREFOLIC) FORM & STATUS

1) Active folate (L-5-MTHF) vs folic acid in women of childbearing age — meta-analysis (Xie et al., 2025)

Ingredient: Quatrefolic (L-5-MTHF) **Grade:** A — Systematic review & meta-analysis of RCTs

Study dose: L-5-MTHF ≥0.4 mg, ≥12 weeks **Our product:** Quatrefolic 220 mcg (bundle with add-on = 440 mcg)

Design: Meta-analysis, 11 RCTs, women of childbearing age

Key findings:

- Active folate increased plasma folate (p=0.04) and RBC folate (p=0.01) vs folic acid; lower unmetabolised folic acid (p<0.0001).
- Increased subsequent pregnancy rates (p=0.0005) and reduced adverse pregnancy outcomes (p=0.0003) in women with prior adverse outcomes.
- Core citation for the active-folate USP. Keep pregnancy-outcome wording to 'in research' framing.

Source: https://consensus.app/papers/details/dcca4c0664005b46ad75a724f0c82452/

2) L-5-MTHF raises blood folate more than folic acid in women (Henderson et al., 2018)

Ingredient: Quatrefolic (L-5-MTHF) **Grade:** A — Randomised placebo-controlled trial

Study dose: L-5-MTHF 1.13 mg, 12 wk **Our product:** Quatrefolic 220 mcg/serving

Design: RCT, n=142 women (20–45 y), Malaysia (no fortification)

Key findings:

- RBC folate higher with L-5-MTHF than folic acid (1951 vs 1498 nmol/L, p=0.003); plasma folate also higher (p=0.023).
- Trial dose above ours — cite as FORM superiority, not dose-matched effect.

Source: https://consensus.app/papers/details/8e09eb641843576d82f81fc0f6df7097/

3) RBC folate rises more with [6S]-5-MTHF than folic acid (Lamers et al., 2006)

Ingredient: Quatrefolic (L-5-MTHF) **Grade:** A — Double-blind RCT

Study dose: 416 mcg [6S]-5-MTHF vs 400 mcg folic acid, 24 wk **Our product:** Quatrefolic 220 mcg/serving

Design: Double-blind RCT, n=144 women (19–33 y)

Key findings:

- RBC folate increase greater with L-5-MTHF than folic acid (p<0.001).
- Authors: preconception supplementation should extend beyond 4 weeks — supports our 3-month start advice.

Source: https://consensus.app/papers/details/e6e04f8970ea5922ab8666453d750feb/

PRIMARY — FOLATE & NEURAL-TUBE / PRECONCEPTION (CLASS EVIDENCE)

4) Folic acid & NTD prevention — USPSTF evidence review (Viswanathan et al., 2023)

Ingredient: Folate (class evidence) **Grade:** A — Systematic review for USPSTF

Study dose: Periconception folate **Our product:** Quatrefolic L-5-MTHF

Design: Systematic review, cohorts n>990,000

Key findings:

- Periconception folate associated with reduced NTD risk (aRR 0.49–0.62); no harms found.
- HONESTY FLAG: the formal NTD-prevention RCT base is on FOLIC ACID. Frame our L-MTHF as 'supports healthy neural-tube development / folate status', not 'proven to prevent NTDs'.

Source: https://consensus.app/papers/details/7870d5f04f5155a5ba790ff6e18c4442/

5) Preconception folic acid + multivitamin for NTD prevention — SOGC guideline (MacQuarrie, 2015)

Ingredient: Folate + multivitamin **Grade:** A — Clinical practice guideline

Study dose: 0.4–1.0 mg folate in a multivitamin, ≥2–3 mo pre-conception **Our product:** PPS multivitamin matrix

Design: Guideline synthesis of RCTs/CCTs/observational

Key findings:

- Folate within a MULTIVITAMIN recommended ≥2–3 months before conception — validates both the '3 months before' advice and the complete-nutrition (multivitamin) concept over folate alone.
- RBC folate is the target biomarker (L-MTHF raises it efficiently).

Source: https://consensus.app/papers/details/93fe2523efdb5ed6ade0b0128666f2df/

PRIMARY — CONCEPTION READINESS & EGG HEALTH (SOFT / SUPPORT-LEVEL)

6) Multiple micronutrient supplementation across preconception — review (Liu et al., 2025)

Ingredient: Full MMS matrix **Grade:** A/B — Review of 30 trials

Study dose: MMS (incl. 800 mcg folate) **Our product:** PPS 20-nutrient matrix

Design: Review, 30 trials over 30+ years

Key findings:

- MMS improves micronutrient status, creates a healthier reproductive environment in preconception, and may benefit fertility and the embryonic environment.
- Supports 'prepares the body for conception' as a complete-nutrition claim — the strongest framing for a preconception multivitamin.

Source: https://consensus.app/papers/details/cb5a43de55ed555d99d7acb9ee226106/

7) Nutrient supplements & female infertility — umbrella review (Pandey et al., 2024)

Ingredient: Antioxidants / multi-nutrient **Grade:** A — Umbrella review (very-low certainty)

Study dose: Various **Our product:** PPS matrix

Design: Umbrella review of meta-analyses

Key findings:

- Multivitamins/antioxidants increased live-birth rate (OR 1.81–2.59) but at VERY LOW certainty.
- Egg-quality / fertility claims must stay SOFT/support-level and framed as 'as part of complete nutrition' — not folate-alone, not a hard promise.

Source: https://consensus.app/papers/details/1c2e0ecf6d835cc7931a450671cfd2ef/

SECONDARY — IRON SUPPORT (FERROUS BISGLYCINATE, 100% RDA)

8) Ferrous bisglycinate vs other iron salts in pregnancy — meta-analysis (Fischer et al., 2023)

Ingredient: Ferrous Bisglycinate **Grade:** A — Systematic review & meta-analysis

Study dose: Bisglycinate vs other salts, 4–20 wk **Our product:** Ferrous Bisglycinate 29 mg (100% RDA)

Design: Meta-analysis, 9 pregnancy RCTs

Key findings:

- Higher haemoglobin (SMD 0.54 g/dL) and ~64% fewer GI adverse events (IRR 0.36) vs other iron salts in pregnant women.
- Backs both 'supports healthy iron levels' and the 'gentle / well-tolerated iron' form USP.
- Iron declared at 100% RDA per ICMR-NIN. Form quality (bisglycinate chelate) is the differentiator vs standard sulphate/fumarate.

Source: https://consensus.app/papers/details/bf1a1188392c5a6ca2addaa35fd20f27/

9) Ferrous bisglycinate vs ferrous fumarate in pregnancy (Bumrungpert et al., 2022)

Ingredient: Ferrous Bisglycinate **Grade:** A — Randomised controlled trial

Study dose: Bisglycinate 24 mg elemental vs fumarate 66 mg **Our product:** Ferrous Bisglycinate 29 mg

Design: RCT, n=120 pregnant women

Key findings:

- Bisglycinate matched a much higher fumarate dose on Hb/ferritin with better absorption and significantly fewer side effects (nausea, constipation, metallic taste).
- Supports 'gentle, well-absorbed iron' at a sensible dose.

Source: https://consensus.app/papers/details/a4a28cb61bf35347b5c75bfba9b994b0/

10) Balance note — routine iron & form superiority (AGA 2024; USPSTF 2024; Petry 2022)

Ingredient: Iron (context) **Grade:** A — Guidelines / review (calibration)

Study dose: — **Our product:** Ferrous Bisglycinate 29 mg

Design: Clinical guidance + narrative review

Key findings:

- AGA 2024: no oral iron form has proven clinical superiority; USPSTF 2024: insufficient evidence for routine supplementation in asymptomatic pregnancy; Petry 2022: iron in iron-replete women may modestly raise GDM risk.
- Keep iron claims to 'supports healthy iron levels' — NOT 'prevents anaemia in everyone'. Bisglycinate's edge is tolerability/absorption, framed honestly.

Source: https://consensus.app/papers/details/c13bead831565c528744c8916ee7dff0/

SECONDARY — THYROID SUPPORT (IODINE + SELENIUM)

11) Maternal iodine status & child neurodevelopment — IPD meta-analysis (Levie et al., 2019)

Ingredient: Iodine (Potassium Iodide) **Grade:** A — Individual-participant-data meta-analysis

Study dose: Dietary/UIC status **Our product:** Iodine 140 mcg

Design: IPD meta-analysis, 6180 mother-child pairs

Key findings:

- Iodine is essential for thyroid hormone → fetal brain/nervous-system development; deficiency is the leading preventable cause of impaired neurodevelopment.
- Fetal brain is vulnerable to low iodine especially in the first trimester — supports preconception iodine sufficiency.

Source: https://consensus.app/papers/details/016f63e081c95da5905f57f6fd84e223/

12) Iodine supplementation RCT incl. Bangalore (Gowachirapant et al., 2017) — calibration

Ingredient: Iodine **Grade:** A — Randomised placebo-controlled trial (balance)

Study dose: 200 mcg/day **Our product:** Iodine 140 mcg

Design: RCT, n=832 mildly-deficient pregnant women (India/Thailand)

Key findings:

- Iodine supplementation in MILD deficiency showed NO measurable effect on child IQ at 5–6 y.
- Therefore frame iodine as 'supports healthy thyroid function and the brain development that depends on it' — NOT 'boosts baby's IQ'.

Source: https://consensus.app/papers/details/429038cee4465de9bd4a78cee5f0454d/

SECONDARY — FETAL GROWTH & IMMUNE SUPPORT (ZINC)

13) Zinc supplementation in pregnancy — meta-analysis (Diao et al., 2025)

Ingredient: Zinc (Zinc Citrate Dihydrate) **Grade:** A — Systematic review & meta-analysis

Study dose: Zinc monotherapy **Our product:** Zinc Citrate 13.2 mg

Design: Meta-analysis, 77 RCTs

Key findings:

- Zinc reduced fetal intrauterine growth retardation (RR 0.23), increased birth length and head circumference, raised serum/cord zinc.
- Honest balance: Liu 2018 found maternal zinc did NOT significantly raise birth weight. Keep zinc at support-level for fetal growth + immune support.

Source: https://consensus.app/papers/details/82488ea923bf586ebb43ec8b7947e370/

SECONDARY — ENERGY METABOLISM & IMMUNE READINESS (MULTI-MICRONUTRIENT, SUPPORT-LEVEL)

14) Vitamin/mineral supplementation in pregnancy — meta-analysis (Oh et al., 2020)

Ingredient: MMS (energy, immunity, growth context) **Grade:** A — Systematic review & meta-analysis

Study dose: MMN vs IFA **Our product:** PPS 20-nutrient matrix

Design: Meta-analysis, 72 studies, 451,723 women

Key findings:

- Multiple-micronutrient supplementation improved preterm birth, small-for-gestational-age and low birthweight vs iron-folic acid alone.
- Umbrella support for the B-complex 'energy metabolism' and 'immune readiness' SECONDARY claims at support-level — these are normal-RDA structure/function contributions, not hero claims.

Source: https://consensus.app/papers/details/84b5cd906c615a938e93b42e8a61bf66/

15) Preconception/pregnancy B-vitamin & vitamin D status — NiPPeR RCT (Godfrey et al., 2023)

Ingredient: B-vitamins, Vitamin D **Grade:** A — Randomised controlled trial (secondary analysis)

Study dose: OTC-level B2/B6/B12/D **Our product:** PPS B-complex + D2 300 IU

Design: RCT, n=1729 women planning conception

Key findings:

- Over 90% of women had marginal/low status of ≥1 of folate, riboflavin, B12 or vitamin D at baseline; supplementation substantially reduced deficiency markers preconception and through pregnancy.
- Supports 'fills common nutrient gaps / supports energy metabolism' framing for the B-complex — status-correction, not a performance promise.

Source: https://consensus.app/papers/details/193b06619955518c80cd8d563384a5a1/