



Elevit Pre-conception for Fertility

SEPTEMBER 2025

Dear healthcare professionals

Fertility is a deeply personal journey, one that many individuals and couples navigate with hope, uncertainty, and a desire to take control of their reproductive health.

At Bayer, we recognise that supporting your patients on this journey means offering evidence-based guidance on those factors that can improve fertility outcomes. Nutrition is one of the most powerful of those factors and is where Elevit plays a critical role.

Elevit Pre-conception/Stage 1 is clinically proven to support fertility. Containing key micronutrients like folic acid, vitamins B6 and B12, vitamin D, iron, zinc and antioxidants, it supports hormonal regulation, improves ovulatory function, creates a healthier environment for conception and early pregnancy. It is also proven to increase the chance of conception, and reduce both the time to conception and the risk of miscarriage.

This **Elevit Pre-conception for Fertility** deck has been created to highlight the key benefits of taking Elevit during this pivotal time, so that you can feel confident in your recommendations and in answering the questions your patients may have during their fertility journey.

We hope you find this material useful!









The prevalence of infertility has increased over recent decades



The clinical evidence for Elevit in supporting fertility



Micronutrients and fertility



Who can benefit from Elevit?



How micronutrients can support optimal fertility



Elevit delivers comprehensive micronutrient support to all women planning a pregnancy



How Elevit can support fertility



Appendix

Infertility is a common challenge worldwide, and its prevalence has increased substantially over recent decades



Data show that **female infertility rates have increased significantly worldwide** since 1990, with increases of ~11%, ~8% and ~3.5% observed in Asia, North America and South America, respectively¹



Approximately **1 in 6** people have experienced infertility at some stage in their lifetime (roughly 17.5%)²

Optimal fertility	Suboptimal fertility	Infertility
Ability to produce a child. Approximately 80% of couples will naturally conceive in the first 6 months of attempting pregnancy ³	Longer time to conceive – may have fertility stressors (for example, age, mental stress, obesity, etc.) ^{3,4}	Failure to achieve pregnancy after 12 months (or 6 months if over 35) of regular, unprotected intercourse ³



Many women begin to suspect a fertility issue well before receiving a formal diagnosis. These perceptions may arise from an extended time trying to conceive, irregular menstrual cycles, multiple miscarriages or a sense that 'something isn't right' – even in the absence of medical confirmation.⁵⁻⁷

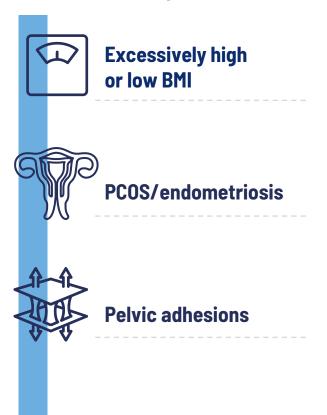


Modern lifestyles can challenge a woman's ability to conceive by disrupting the body's micronutrient balance

Certain lifestyle and environmental factors are associated with reduced fertility¹⁻³



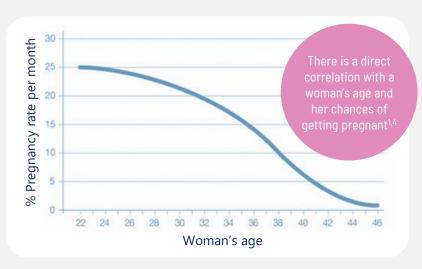
Numerous health conditions can also affect fertility¹







An increasing number of woman are delaying pregnancy which makes it harder to conceive



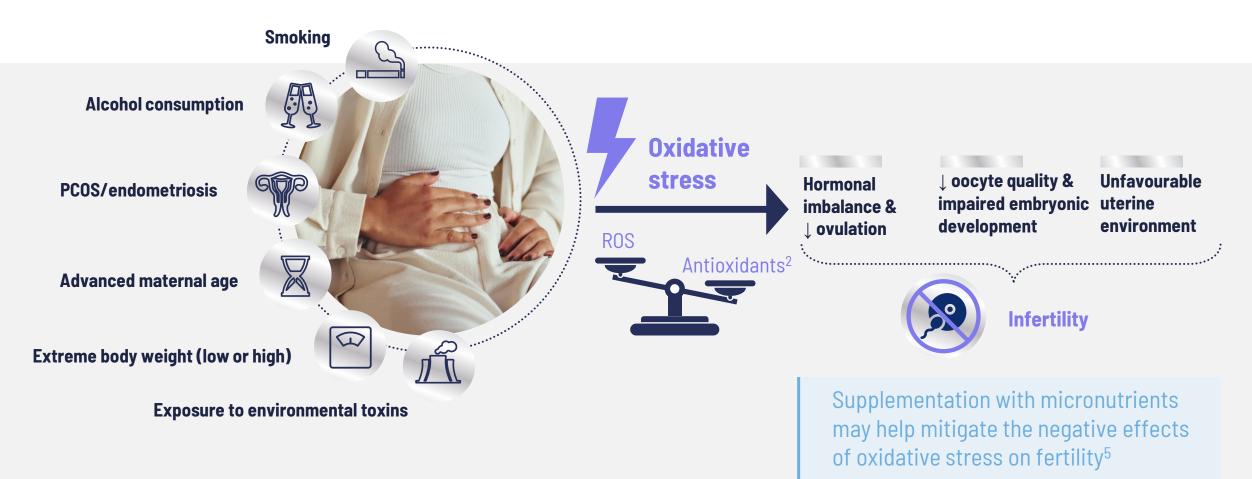
Such factors and conditions may lead to micronutrient imbalances and increase oxidative stress, both of which can compromise reproductive physiology and negatively impact fertility

Oxidative stress can impair fertility, but supplementation with certain micronutrients may help reduce its impact



Factors that elevate production of ROS in the body^{1,2}

Impact on reproductive function³⁻⁵



Abbreviations: PCOS, polycystic ovary syndrome; ROS, reactive oxygen species

Inadequate intake of micronutrients necessary for fertility is common among women of reproductive age



69% of women of reproductive age worldwide have deficient levels of iron, zinc and/or folate¹

Women following vegetarian or vegan diets are at increased risk of deficiencies in key micronutrients, such as vitamin B12, iron, vitamin D, zinc, iodine, calcium and omega-3s^{2,3}

More than half of infertile women have insufficient levels of vitamin B12⁴

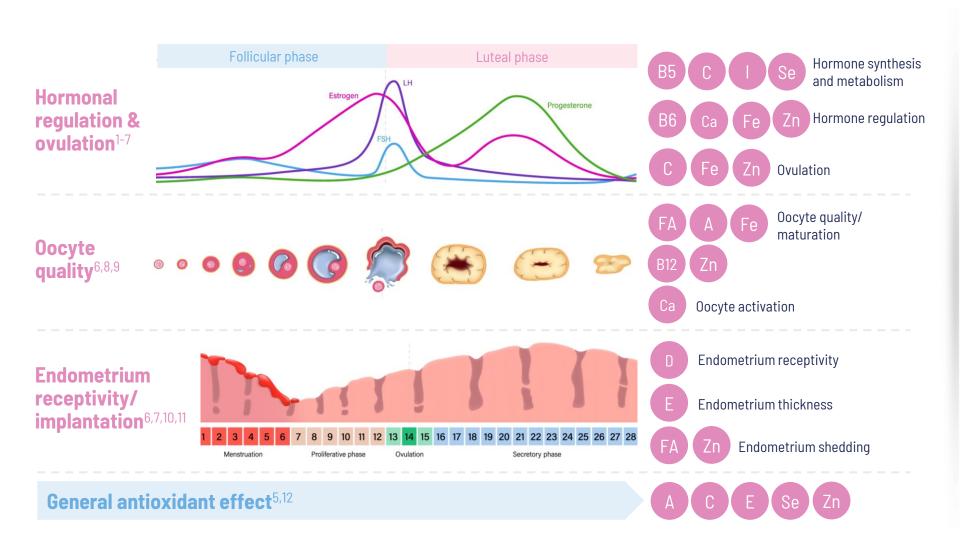
Vitamin D deficiency is common in women of reproductive age, especially those with darker skin, limited sun exposure, high sunscreen use and indoor lifestyles⁵

MICRONUTRIENT	DEFICIENCY IMPACT ON FERTILITY
Folate (B9)	Impaired ovulation, increased levels of homocysteine, increased risk of miscarriage ^{4,6,7}
Vitamin B6	Increased levels of homocysteine, oxidative stress ⁴
Vitamin B12	Ovulatory dysfunction, increased risk of miscarriage ⁶
Vitamin C	May decrease protection from oxidative damage that can affect oocyte maturation and fertilisation ⁸
Vitamin D	Lower IVF success, increased risk of polycystic ovary syndrome ⁴
Vitamin E	May decrease protection from oxidative damage ⁴
Copper	Embryonic death and reduced fertility rates ⁹
Iron	Anovulation ¹⁰
Zinc	Impaired ovulation, menstrual irregularity ^{4,11}
lodine*	Delayed conception ¹²
Selenium*	Increased risk of infertility, lower oocyte quality, lower fertilisation rate, increased risk of pre-eclampsia ¹³

^{*}Not available in all markets. Elevit formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country

How micronutrients can support optimal fertility





Women undergoing IVF who consumed >800 μ g/day of folic acid had ~20% higher live birth rates compared to those taking less than 400 μ g/day^{8*}

Higher dietary folate was linked to **64% lower odds of anovulation** in women trying to conceive 13

Among women undergoing IVF, vitamin D sufficiency was associated with a nearly **fourfold increase in pregnancy rates** versus deficiency⁸

Women taking ≥6 multivitamins per week (with folic acid) had a 41% lower risk of ovulatory infertility versus non-users⁸

Abbreviations: A, vitamin A; B5, vitamin B5; B6, vitamin B6; B12, vitamin B12; C, vitamin C; Ca, calcium; D, vitamin D; E, vitamin E; FA, folic acid; Fe, iron; I, iodine; IVF, in vitro fertilisation; Se, selenium; Zn, zinc.

References: 1. EFSA. Scientific Opinion on the substantiation of health claims related to pantothenic acid. EFSA Journal 2009;7(9):1218. 2. Henmi H et al. Fertil Steril 2003;80(2):459-461. 3. EFSA. Scientific Opinion on the substantiation of health claims related to vitamin B6. EFSA Journal 2009;7(9):1225. 4. Mathews DM et al. Human Reprod 2021;36:265-274. 5. Rayman MP. Lancet 2000;356;233-241. 6. Schaefer E Nock D. Clin Med Insights: Women's Health 2019;12:1-6. 7. Skoracka K et al. Adv Nutr 2021;12:2372-2386. 8. Gaskins AJ, Chavarro JE. Am J Obstet Gynecol 2018;218:379-89. 9. Wakai T et al. Cold Spring Harb Perspect Biol 2011;3:a006767. 10. Cermisoni GC et al. Int J Mol Sci 2018;19:2320. 11. Cicek N et al. J Assist Reprod Genet 2012;29:325-8. 12. Kaltsas A et al. Antioxidants 2023;12:1490. 13. Gaskins AJ et al. PLoS ONE 2012;7(9):e46276.

^{*}Elevit formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Elevit Pre-conception increases the chance of conception, shortens the time to conceive and reduces the risk of miscarriage

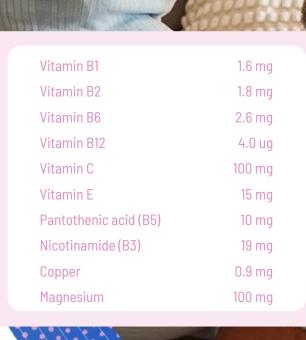
Elevit's role in reducing NTDs is well known, but its ability to support fertility is less widely recognised

• Elevit restores micronutrient levels to support fertility and reproduction

Its combination of ingredients* have several properties that have a positive impact on fertility, including increasing the number of good quality oocytes, supporting cell division and protecting cells from oxidative stress ¹

 Together they can help increase conception rates and reduce both the time to conception and the incidence of miscarriage, and thereby, support fertility ¹

Folate 800 µg		
Calcium	Iron	
125 mg	60 mg	
Zinc	Vitamin D	
7.5 mg	500 IU	



Abbreviation: NTD, neural tube defect

References: 1. Schaefer E, Nock D. Clin Med Insights: Women's Health 2019;12:1-6.

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The positive effects of Elevit Pre-conception on fertility are backed by clinical evidence



Elevit Pre-conception has been clinically proven to:









By supporting:

Hormonal regulation

 Elevit Pre-conception features micronutrients proven to assist in hormonal regulation, critical for fertility. It has been clinically proven to support menstrual cycle regularity, particularly in women with irregular cycles⁷

Egg quality

- Protects ovarian follicles from oxidative stress and support more high-quality oocytes, especially important during IVF, when oxidative stress is elevated³
- Rebalances the ovarian follicular nutrient environment in IVF patients^{3,6}

Reductions in homocysteinaemia

- High homocysteine concentrations are associated with a 33% increased risk of anovulation in healthy women,⁹ and an increased rate of miscarriage and pregnancy complications in women undergoing ART⁵
- Lowers homocysteine levels in healthy women of childbearing age;¹⁰ in healthy pregnant women;¹¹ in infertile women;¹² and in women undergoing IVF⁵

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Abbreviations: ART, assisted reproductive technology; IVF, in vitro fertilisation

References: 1. Czeizel A et al. Int J Vitam Nutr Res 1996;66:55-58. 2. Pasman NM et al. Gynaecology 2005;15:3730. 3. Luddi A et al. Reprod Biol Endocrinol 2016;14:57. 4. Sun N et al. J Developmental Med 2013;1:74-79. 5. Ogawa S et al. Nutrients 2023;15:3730. 6. Özkaya O, Naziroğlu M. Fertil Steril 2010;94:2465-2466. 7. Özkaya O et al. Biol Trace Elem Res 2011;139:1-9. 8. Dudás M et al. Arch Gynecol Obstet 1995;256:115-123. 9. Skoracka K et al. Adv Nutr 2021;12:2372-2386. 10. Schaefer E et al. Vitam Miner 2016;5:134. 11. Wang Y et al. J Reprod Med 2017;26:1196-1206. 12. Kuroda K et al. Nutrients 2021;13:1381.

Use the following slides to explore the clinical trials in which these benefits have been proven

Elevit Pre-conception can shorten the time to pregnancy and increase the chances of conception



Czeizel et al, 1996 study



Study objective

To assess the use of Elevit Pre-conception containing 800 µg folic acid in women planning a pregnancy. The main objective was to prevent NTDs but the trial was also used to evaluate the impact of supplementation on fertility



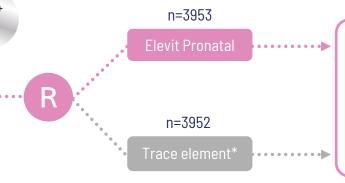


Study design

Double-blind RCT

Couples:

- With no history of delayed conception or infertility
- Who were not pregnant





- Women took 1 tablet/day for at least one month before conception and throughout first trimester.
- Number of pregnancy and time until conception were measured

Study results:

- Use of Elevit for at least one month before conception and throughout the first trimester resulted in a significantly higher number of confirmed pregnancies compared with a supplement containing trace elements – 64.6% vs 62.3% of women respectively – OR 1.1 (95% CI 1.00–1.21; p<0.05)
- Time to conception was also shorter with Elevit compared with a supplement containing trace elements – 3.8 menstrual cycles vs 4.0 cycles – an increase in fertility of 5%

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

*Contained copper 1 mg, manganese 1 mg, zinc 7.5 mg and vitamin C 7.5 mg

Abbreviations: CI, confidence interval; NTD, neural tube defect; OR, odds ratio; RCT, randomised controlled trial.

References: Czeizel A et al. The effect of preconceptional multivitamin supplementation on fertility. Int J Vitam Nutr Res 1996;66:55-58.

Elevit Pre-conception can support regular menstrual cycles



Dudas et al, 1995 study



Study objective

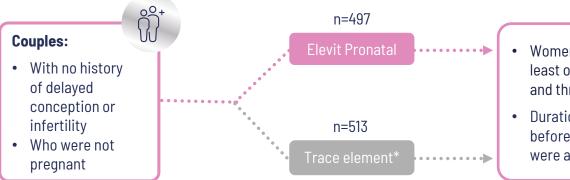
To assess the effect of Elevit Pre-conception containing 800 µg folic acid on the menstrual cycles of women planning a pregnancy.



Study design



Sub-analyses of an RCT assessing the effect of Elevit Pre-conception on NTDs



Women took 1 tablet/day for at least one month before conception and throughout first trimester

 Duration of menstrual cycles before and after supplementation were assessed in both groups

Study results

- Elevit Pre-conception improved menstrual cycle regularity compared to before supplementation: the menstrual cycles were shorter due to a shorter preovulatory phase and less variable in length, mainly in women with irregular cycles
- A similar trend was not seen during traceelement supplementation

Elevit's formulation features micronutrients proven to assist in hormonal regulation, critical for fertility. It has been clinically proven to support menstrual cycle regularity, particularly in women with irregular cycles

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

*Contained copper 1 mg, manganese 1 mg, zinc 7.5 mg and vitamin C 7.5 mg

Abbreviations: CI, confidence interval; NTD, neural tube defect; OR, odds ratio; RCT, randomised controlled trial.

References: Dudás M et al. The effect of preconceptional multivitamin supplementation on the menstrual cycle. Arch Gynecol Obstet 1995;256:115-123.

Elevit Pre-conception supports egg health by rebalancing the nutritional environment of ovarian follicles and boosting antioxidant defences



Özkaya et al, 2010 & Özkaya et al, 2011 studies



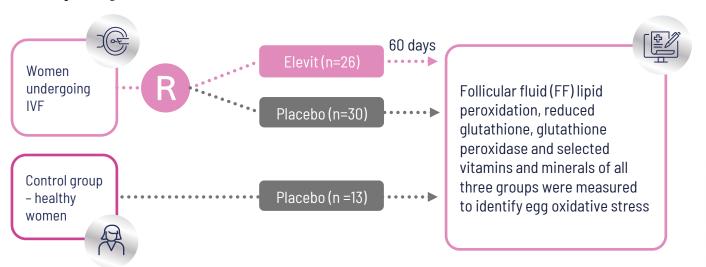


Study objective

To assess the effect of Elevit Pre-conception on egg oxidative stress and nutrient environment in women undergoing IVF



Study design





Elevit protects ovarian follicles from oxidative stress by increasing antioxidant defences, and enriches the egg's micronutrient environment to promote optimal egg health

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Abbreviations: IVF, in vitro fertilisation; R, randomised.

References: Özkaya M0, Naziroğlu M. Multivitamin and mineral supplementation modulates oxidative stress and antioxidant vitamin levels in serum follicular fluid of women undergoing IVF.

Fertil Steril 2010:94:2465-2466.

Özkaya MO et al. Effects of multivitamin/mineral supplementation on trace element levels in serum and follicular fluid of women undergoing IVF. Biol Trace Elem Res 2011;139:1–9.

Study results

FF MICRONUTRIENTS	IVF VS CONTROL	ELEVIT PRE-CONCEPTION VS PLACEBO IN IVF
Vitamin A	=	=
Vitamin C	_*	^ *
Vitamin E	=	↑ ‡
Copper	\downarrow	↑ [†]
Zinc	\downarrow^{\dagger}	^ *
Selenium	↓ *	^ *
Iron	^*	↓ ‡

FF OXIDATIVE STRESS Parameters	IVF VS CONTROL	ELEVIT PRE-CONCEPTION VS PLACEBO IN IVF
Lipid peroxidation	^ *	\downarrow^{\dagger}
Reduced glutathione	=	↑ †
Glutathione peroxidase	\ *	↑

Elevit Pre-conception supports egg health by protecting ovarian follicles from oxidative stress



Luddi et al, 2016 study



Study objective

Investigative study to evaluate the impact of Elevit Pre-conception on oxidative stress levels in the follicular microenvironment and on IVF outcome in 18 women >39 years undergoing IVF treatment



Study design

Women aged >39 undergoing IVF

IVF cycle 1 (+ Elevit)

Protein oxidation levels and total antioxidant capacity in serum and in follicular fluid were evaluated for both IVF cycles

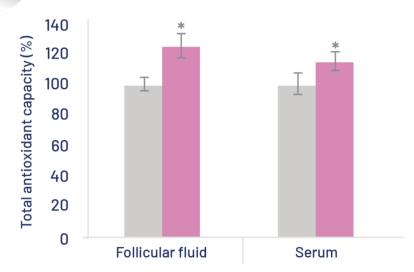


Study results

- When patients took Elevit, starting 3 months before IVF cycles, proteins were protected from oxidative damage and total antioxidant capacity increased in both follicular fluid and serum
- Elevit use was also associated with a significantly increased number of good quality oocytes
 - Number of unsuitable oocytes in first (no micronutrients) IVF cycle 1.88 \pm 1.01, and in second (with micronutrients) 1.2 \pm 0.77 (p<0.05)



For IVF, the quality of the oocyte determines the embryonic development potential. Elevit protects ovarian follicles from oxidative stress and increases the number of good quality oocytes, enhancing fertility outcomes. This is particularly important for women undergoing IVF where oxidative stress is heightened



Total antioxidant capacity in follicular fluid and in serum from untreated patients (grey bars) or patients treated with Elevit (pink bars). *p<0.05.

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Abbreviations: IVF, in vitro fertilisation; R, randomised; RDA, recommended daily allowance

References: Luddi A et al. Antioxidants reduce oxidative stress in follicular fluid of aged women undergoing IVF. Reprod Biol Endocrinol 2016;14:57.

Elevit Pre-conception helps restore the nutrient balance in ovarian follicles in women undergoing IVF, supporting egg health



Sun et al, 2013 study

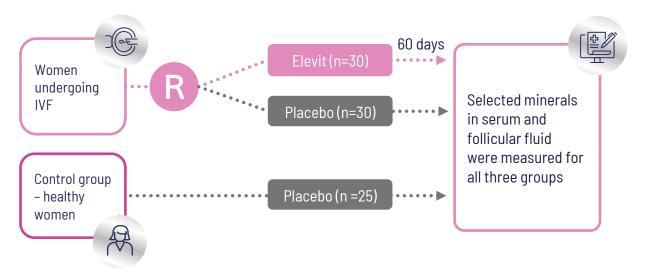


Study objective

To assess the effect of Elevit Pre-conception on egg oxidative stress and nutrient environment in women undergoing IVF



Study design





Elevit protects ovarian follicles from oxidative stress by increasing antioxidant defences, and enriches the egg's micronutrient environment to promote optimal egg health

Study results

- Compared to healthy controls, IVF placebo group had lower serum copper and zinc levels
- Elevit use increased serum and follicular copper and zinc levels in IVF group, while it reduced follicular iron level

ASSESSED MINERALS	SERUM		FOLLICULAR Fluid
	IVF PLACEBO VS CONTROL	ELEVIT PRE- CONCEPTION VS IVF PLACEBO	ELEVIT PRE- CONCEPTION VS IVF PLACEBO
Copper	_*	^ *	↑ [†]
Zinc	\downarrow^*	↑ †	\uparrow^*
Iron	=	=	↓ ‡

^{*}p<0.05; †p<0.01; ‡p<0.001.

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country

Abbreviations: IVF, in vitro fertilisation: RCT, randomised controlled tria

Elevit Pre-conception helps to lower elevated homocysteine levels and reduces miscarriage in women with a history of IVF failure



Ogawa et al, 2023 study



Study background

High homocysteine levels can increase the risk of pregnancy complications and miscarriage



Included FET

cycles (n=38)

Included FET

cycles (n=44)

Study objective

 To examine whether Elevit Pre-conception altered homocysteine levels and influenced reproductive outcomes in women with a history of frozen-thawed embryo transfer (FET) failure

Infertile women with history of previous IVF failure (N=56)

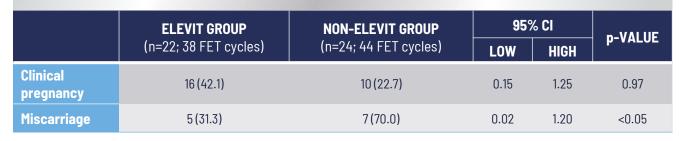


Study design

Prospective interventional study

Study results

- Women who took Elevit for 12 weeks had significantly decreased homocysteine levels (p=0.00146)
- Miscarriage rates were significantly lower in the group of women taking Elevit compared to those not using it





Change in homocysteine levels before and after intake of folic acid in infertile women who had a history of FET failure

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Abbreviations: CI, confidence interval; FET, frozen-thawed embryo transfer; ICSI, intracytoplasmic sperm injection; IVF, in vitro fertilisation

References: Ogawa S *et al.* Impact of homocysteine as a preconceptional screening factor for in vitro fertilization and prevention of miscarriage with folic aci supplementation following frozen-thawed embryo transfer: A hospital-based retrospective cohort study. *Nutrients* 2023;15:3730.

Supplementation with 800 µg folate is associated with higher conception rates in woman undergoing ART



Gaskins et al, 2014 study



Study objective

To evaluate the associations of preconceptional folate intake with ART outcomes within woman population (N=232)



Study design

Prospective cohort analysis (food frequency questionnaire and ART medical records)

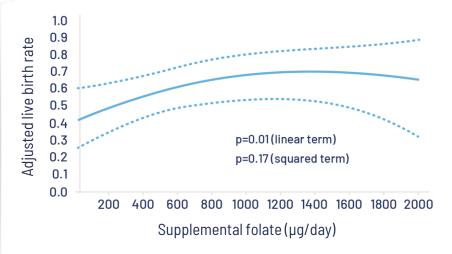
Study results

- In women who took >800 µg supplemental folate/day:
 - Live birth rates were 20% higher than those taking <400 μg folate/day
 - Fertilisation rates and implantation rates were higher (p-trend = 0.03 for both)
 - Cycle failure rates before embryo transfer were lower (p-trend = 0.02)

QUARTILE (range, μg/day)	IMPLANTATION RATE	CLINICAL PREGNANCY RATE	LIVE BIRTH RATE
	Adjusted mean (95% CI)		
Supplemental folate			
Q1 (<400)	0.43 (0.31-0.55)	0.41(0.29-0.53)	0.35 (0.24-0.48)
Q2 (400 - 543)	0.66 (0.55-0.75)*	0.55 (0.44-0.65)	0.43 (0.32-0.54)
Q3 (544 - 800)	0.58 (0.46-0.70)	0.55 (0.42-0.66)	0.39 (0.28-0.52)
04 (>800)	0.67 (0.56-0.77)*	0.62 (0.51-0.73)*	0.55 (0.43-0.66)*
p-trend	0.03	0.03	0.07

^{*}Indicates a p-value < 0.05 comparing that quartile vs. first quartile







Increased supplemental folate intake is associated with improved fertility outcomes after ART

Abbreviations: ART, assisted reproductive technology; CI, confidence interval; IVF, in vitro fertilisation; Q, quartile.

References: Gaskins AJ et al. Dietary folate and reproductive success among women undergoing assisted reproduction. Obstet Gynecol 2014;124:801-809.

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Daily supplementation with 800 µg of folic acid is linked to a lower risk of miscarriage in the general population



Gaskins et al, 2014 study





Study objective

To evaluate the relationship between pre-pregnancy folate intake and risk of miscarriage (N=11,072)



Study design

Prospective cohort analysis (food frequency questionnaire and self-reported miscarriage)

Study results

- Compared with women without supplemental folate intake, those in the highest category (>730 µg/d) had a 20% reduced risk of miscarriage (RR 0.80; 95% CI 0.71-0.9) after multivariable adjustment (p-trend ≤0.001)
- Data indicate that 42 women would need to increase their folate intake from 400–729 µg/day (quartile 3) to >730 µg/day (quartile 4) to prevent one miscarriage



Daily folic acid supplementation with 800 μ g pre-pregnancy may help reduce the risk of miscarriage in the general population



Increasing supplemental folic acid intake from 400 μ g/day to 800 μ g/day before conceiving may help reduce miscarriage in the general population



Supplemental folate intake and risk of spontaneous abortion



Categories of supplemental folate intake (median, µg/day)

Formulations may vary between regions/countries in order to comply with local regulatory requirements. Please check the formulation available for your country.

Abbreviations: ART, assisted reproductive technology; CI, confidence interval; IVF, in vitro fertilisation; Q, quartile; RR, risk reduction.

References: Gaskins AJ et al. Dietary folate and reproductive success among women undergoing assisted reproduction. Obstet Gynecol 2014;124:801-809.

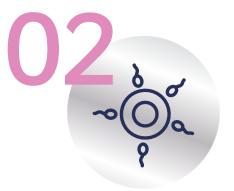


If your patient is concerned about their fertility or has been trying to conceive, consider initiating a conversation about the potential benefits of pregnancy multivitamin supplementation. Elevit should be started at least one month prior to conception

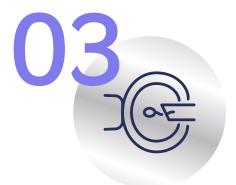




Women **preparing** to conceive naturally



Women **actively trying** to conceive naturally



Women **preparing to undergo IVF** or another fertility treatment

Elevit delivers comprehensive micronutrient support for fertility to all women planning a pregnancy







Increased chance of conception for women trying to conceive¹



Shorter time to conception¹



Reduced miscarriage in at-risk population²



Also supports women undergoing IVF³⁻⁶





