

Webinaire - Fertilité

Références

Voir aussi les fiches techniques des produits

Infertilité - Généralités

- INSERM : <https://www.inserm.fr/dossier/infertilité/>
- Center for Disease Control (CDC). Infertility FAQs. Updated January 16, 2019. URL: <https://www.cdc.gov/reproductivehealth/infertility/index.htm>
- Office of Women's Health. Infertility. Updated April 01, 2019. URL: [https://www.womenshealth.gov/a-z-topics/infertility#:~:text=is%20infertility%20a%20common%20problem,Control%20and%20Prevention%20\(CDC\)](https://www.womenshealth.gov/a-z-topics/infertility#:~:text=is%20infertility%20a%20common%20problem,Control%20and%20Prevention%20(CDC))
- Thoma ME, et al. Prevalence of infertility in the United States as estimated by the current duration approach and a traditional constructed approach. *Fertil Steril.* 2013 Apr;99(5): 1324-1331.e1. PMID: 23290741.
- Causes d'infertilité : Source: <https://fertilityleaders.com/common-fertility-problems>
- Cycle menstruel : <https://fempo.co/blogs/news/phase-folliculaire-definition-explications-regles-et-ovulation>
- Yalçın Bahat P, et al. Dietary supplements for treatment of endometriosis: A review. *Acta Biomed.* 2022 Mar 14;93(1):e2022159.
- Piasco F. Endométriose, Approche Naturelle. 119 pp. Éd. Medicatrix Marco Pietteur. 2021.

Auto-immunité

- Cirello, V., Fugazzola, L. Novel insights into the link between fetal cell microchimerism and maternal cancers. *J Cancer Res Clin Oncol* 142, 1697–1704 (2016).
- Khizroeva J, et al. Infertility in women with systemic autoimmune diseases. *Best Pract Res Clin Endocrinol Metab.* 2019 Dec;33(6):101369.
- Kutteh MA, et al. Comparison of celiac disease markers in women with early recurrent pregnancy loss and normal controls. *Am J Reprod Immunol.* 2019 Jul;82(1):e13127.
- Marziali M, Capozzolo T. Role of Gluten-Free Diet in the Management of Chronic Pelvic Pain of Deep Infiltrating Endometriosis. *J Minim Invasive Gynecol.* 2015 Nov-Dec;22(6S):S51-S52.
- Marziali M, et al. Gluten-free diet: a new strategy for management of painful endometriosis related symptoms? *Minerva Chir.* 2012 Dec;67(6):499-504.
- Simopoulou M, et al. The Impact of Autoantibodies on IVF Treatment and Outcome: A Systematic Review. *Int J Mol Sci.* 2019 Feb 19;20(4):892.
- Tersigni C, et al. Recurrent pregnancy loss is associated to leaky gut: a novel pathogenic model of endometrium inflammation? *J Transl Med.* 2018 Apr 17;16(1):102. doi: 10.1186/s12967-018-1482-y. Erratum in: *J Transl Med.* 2019 Mar 15;17(1):83.

Génération

- Ahmad MK, et al. *Withania somnifera improves semen quality by regulating reproductive hormone levels and oxidative stress in seminal plasma of infertile males.* *Fertil Steril.* 2010 Aug;94(3):989-96.
- Balercia G, et al. Placebo-controlled double-blind randomized trial on the use of L-carnitine, L-acetylcarnitine, or combined L-carnitine and L-acetylcarnitine in men with idiopathic asthenozoospermia. *Fertil Steril.* 2005 Sep;84(3):662-71.
- Cakiroglu B, et al. Ubiquinol effect on sperm parameters in subfertile men who have astheno-teratozoospermia with normal sperm concentration. *Nephrourol Mon.* 2014 May 10;6(3):e16870.
- Cyrus A, et al. The effect of adjuvant vitamin C after varicocele surgery on sperm quality and quantity in infertile men: a double blind placebo controlled clinical trial. *Int Braz J Urol.* 2015 Mar-Apr;41(2):230-8.
- Gupta A, et al. Efficacy of *Withania somnifera* on seminal plasma metabolites of infertile males: a proton NMR study at 800 MHz. *J Ethnopharmacol.* 2013 Aug 26;149(1):208-14.
- Gupta NP, Kumar R. Lycopene therapy in idiopathic male infertility—a preliminary report. *Int Urol Nephrol.* 2002;34(3):369-72.
- Nouri M, et al. The effects of lycopene supplement on the spermatogram and seminal oxidative stress in infertile men: A randomized, double-blind, placebo-controlled clinical trial. *Phytother Res.* 2019 Dec;33(12):3203-3211.
- Safarinejad MR, Safarinejad S. Efficacy of selenium and/or N-acetylcysteine for improving semen parameters in infertile men: a double-blind, placebo controlled, randomized study. *J Urol.* 2009 Feb;181(2):741-51.

Inositol

- Brusco GF, Mariani M. Inositol: effects on oocyte quality in patients undergoing ICSI. An open study. *Eur Rev Med Pharmacol Sci.* 2013 Nov;17(22):3095-102.
- Canepa P, et al. Combined treatment with myo-inositol, alpha-lipoic acid, folic acid and vitamins significantly improves sperm parameters of sub-fertile men: a multi-centric study. *Eur Rev Med Pharmacol Sci.* 2018 Oct;22(20):7078-7085.
- Caprio F, et al. Myo-inositol therapy for poor-responders during IVF: a prospective controlled observational trial. *J Ovarian Res.* 2015 Jun 12;8:37.
- Ciotta L, et al. Effects of myo-inositol supplementation on oocyte's quality in PCOS patients: a double blind trial. *Eur Rev Med Pharmacol Sci.* 2011 May;15(5):509-14.

- Dinkova A, et al. Efficacy of myo-inositol in the clinical management of patients with asthenozoospermia. *Eur Rev Med Pharmacol Sci.* 2017 Jun;21(2 Suppl):62-65.
- Regidor PA, et al. Management of women with PCOS using myo-inositol and folic acid. New clinical data and review of the literature. *Horm Mol Biol Clin Investig.* 2018 Mar 2;34(2).
- Zheng X, et al. Inositol supplement improves clinical pregnancy rate in infertile women undergoing ovulation induction for ICSI or IVF-ET. *Medicine (Baltimore).* 2017 Dec;96(49):e8842.

Ashwagandha

- Ahmad MK, et al. Withania somnifera improves semen quality by regulating reproductive hormone levels and oxidative stress in seminal plasma of infertile males. *Fertil Steril.* 2010 Aug;94(3):989-96.
- Gupta A, et al. Efficacy of Withania somnifera on seminal plasma metabolites of infertile males: a proton NMR study at 800 MHz. *J Ethnopharmacol.* 2013 Aug 26;149(1):208-14.
- Nasimi Doost Azgomi R, et al. Comparative evaluation of the effects of Withania somnifera with pentoxifylline on the sperm parameters in idiopathic male infertility: A triple-blind randomised clinical trial. *Andrologia.* 2018 Sep;50(7):e13041.

Berbérine

- An Y, et al. The use of berberine for women with polycystic ovary syndrome undergoing IVF treatment. *Clin Endocrinol (Oxf).* 2014 Mar;80(3):425-31.
- Wei W, et al. A clinical study on the short-term effect of berberine in comparison to metformin on the metabolic characteristics of women with polycystic ovary syndrome. *Eur J Endocrinol.* 2012 Jan;166(1):99-105.
- Wu XK, et al. Reproductive and Developmental Network in Chinese Medicine. Randomized controlled trial of letrozole, berberine, or a combination for infertility in the polycystic ovary syndrome. *Fertil Steril.* 2016 Sep 1;106(3):757-765.e1.

Vitex

- Molaie M, et al. Effects of a combination of Nigella sativa and Vitex agnus-castus with citalopram on healthy menopausal women with hot flashes: results from a subpopulation analysis. *Gynecol Endocrinol.* 2019 Jan;35(1):58-61.
- Rotem C, Kaplan B. Phyto-Female Complex for the relief of hot flushes, night sweats and quality of sleep: randomized, controlled, double-blind pilot study. *Gynecol Endocrinol.* 2007 Feb;23(2):117-22.
- van Die MD, et al. Effects of a combination of Hypericum perforatum and Vitex agnus-castus on PMS-like symptoms in late-perimenopausal women: findings from a subpopulation analysis. *J Altern Complement Med.* 2009 Sep;15(9):1045-8.

Coenzyme Q10

- Zhang M, et al. Coenzyme Q10 ameliorates the quality of postovulatory aged oocytes by suppressing DNA damage and apoptosis. *Free Radic Biol Med.* 2019 Nov 1;143:84-94.

- Xu Y, et al. Pretreatment with coenzyme Q10 improves ovarian response and embryo quality in low-prognosis young women with decreased ovarian reserve: a randomized controlled trial. *Reprod Biol Endocrinol.* 2018 Mar 27;16(1):29.

L-carnitine

- El Sharkwy IA, Abd El Aziz WM. Randomized controlled trial of N-acetylcysteine versus L-carnitine among women with clomiphene-citrate-resistant polycystic ovary syndrome. *Int J Gynaecol Obstet.* 2019 Oct;147(1):59-64.
- Ismail AM, et al. Adding L-carnitine to clomiphene resistant PCOS women improves the quality of ovulation and the pregnancy rate. A randomized clinical trial. *Eur J Obstet Gynecol Reprod Biol.* 2014 Sep;180:148-52.
- Samimi M, et al. Oral carnitine supplementation reduces body weight and insulin resistance in women with polycystic ovary syndrome: a randomized, double-blind, placebo-controlled trial. *Clin Endocrinol (Oxf).* 2016 Jun;84(6):851-7.

Réglisse

- Licorice monograph. Restorative formulations. Updated URL: <https://restorativemedicine.org/library/monographs/licorice-2/>

Mélatonine

- Ermolenko KS, et al. [Melatonin secretion in women of advanced reproductive age]. *Klin Med (Mosk).* 2013;91(7):52-4. Russian.
- Batnasan E, et al. Observation of Parthenatos Involvement in Diminished Ovarian Reserve Patients and Melatonin's Protective Function Through Inhibiting ADP-Ribose (PAR) Expression and Preventing AIF Translocation into the Nucleus. *Reprod Sci.* 2020 Jan;27(1):75-86
- Hu KL, et al. Melatonin Application in Assisted Reproductive Technology: A Systematic Review and Meta-Analysis of Randomized Trials. *Front Endocrinol (Lausanne).* 2020 Mar 27;11:160
- Jahromi BN, et al. Effect of Melatonin on the Outcome of Assisted Reproductive Technique Cycles in Women with Diminished Ovarian Reserve: A Double-Blinded Randomized Clinical Trial. *Iran J Med Sci.* 2017 Jan;42(1):73-78.
- Li C, et al. Melatonin ameliorates the advanced maternal age-associated meiotic defects in oocytes through the SIRT2-dependent H4K16 deacetylation pathway. *Aging (Albany NY).* 2020 Jan 24;12(2):1610-1623.
- Nishihara T, et al. Oral melatonin supplementation improves oocyte and embryo quality in women undergoing in vitro fertilization-embryo transfer. *Gynecol Endocrinol.* 2014 May;30(5):359-62.
- Tong J, et al. Melatonin levels in follicular fluid as markers for IVF outcomes and predicting ovarian reserve. *Reproduction.* 2017 Apr;153(4):443-451.
- Voznesenskaya T, et al. Melatonin protects against experimental immune ovarian failure in mice. *Reprod Biol.* 2007 Nov;7(3):207-20.
- Wang YF, et al. Protective effects of melatonin against nicotine-induced disorder of mouse early folliculogenesis. *Aging (Albany NY).* 2018 Mar 28;10(3):463-480.

- Insufficiency of melatonin in follicular fluid is a reversible cause for advanced maternal age-related aneuploidy in oocytes. *Redox Biol.* 2020 Jan;28:101327.

N-acétyl-cystéine

- Fadin M, et al. Effectiveness of the integration of quercetin, turmeric, and N-acetylcysteine in reducing inflammation and pain associated with endometriosis. In vitro and in vivo studies. *Minerva Ginecol.* 2020 Sep 14.
- Lete I, et al. Effectiveness of an antioxidant preparation with N-acetyl cysteine, alpha lipoic acid and bromelain in the treatment of endometriosis-associated pelvic pain: LEAP study. *Eur J Obstet Gynecol Reprod Biol.* 2018 Sep;228:221-224.
- Nemati M, et al. Comparison of metformin and N-acetyl cysteine, as an adjuvant to clomiphene citrate, in clomiphene-resistant women with polycystic ovary syndrome. *J Gynecol Obstet Hum Reprod.* 2017 Sep;46(7):579-585.
- Salehpour S, Sene AA, Saharkhiz N, Sohrabi MR, Moghimian F. N-Acetylcysteine as an adjuvant to clomiphene citrate for successful induction of ovulation in infertile patients with polycystic ovary syndrome. *J Obstet Gynaecol Res.* 2012 Sep;38(9):1182-6.

Omégas-3

- Colombo J, et al. The Kansas University DHA Outcomes Study (KUDOS) clinical trial: long-term behavioral follow-up of the effects of prenatal DHA supplementation. *Am J Clin Nutr.* 2019 May 1;109(5):1380-1392.
- Escamilla-Nuñez MC, et al. Omega-3 fatty acid supplementation during pregnancy and respiratory symptoms in children. *Chest.* 2014 Aug;146(2):373-382.
- Helland IB, et al. Maternal supplementation with very-long-chain n-3 fatty acids during pregnancy and lactation augments children's IQ at 4 years of age. *Pediatrics.* 2003 Jan;111(1):e39-44.
- Lee HS, et al. Modulation of DNA methylation states and infant immune system by dietary supplementation with ω-3 PUFA during pregnancy in an intervention study. *Am J Clin Nutr.* 2013 Aug;98(2):480-7.

Prénatal

- Guo BQ, et al. Maternal multivitamin supplementation is associated with a reduced risk of autism spectrum disorder in children: a systematic review and meta-analysis. *Nutr Res.* 2019 May;65:4-16.
- Goh YI, et al. Prenatal multivitamin supplementation and rates of pediatric cancers: a meta-analysis. *Clin Pharmacol Ther.* 2007 May;81(5):685-91.
- Goh YI, et al. Prenatal multivitamin supplementation and rates of congenital anomalies: a meta-analysis. *J Obstet Gynaecol Can.* 2006 Aug;28(8):680-689.

Probiotiques

- Huurre A, et al. Impact of maternal atopy and probiotic supplementation during pregnancy on infant sensitization: a double-blind placebo-controlled study. *Clin Exp Allergy.* 2008 Aug;38(8):1342-8.

- Rautava S, et al. Probiotics during pregnancy and breast-feeding might confer immunomodulatory protection against atopic disease in the infant. *J Allergy Clin Immunol.* 2002 Jan;109(1):119-21.

Anti-Inflama

- Cho MK, et al. Frankincense ameliorates endometriosis via inducing apoptosis and reducing adhesion. *Integr Med Res.* 2023 Jun;12(2):100947. doi: 10.1016/j.imr.2023.100947. Epub 2023 Apr 3. PMID: 37168676; PMCID: PMC10165193.

Vitamine D

- Hollis BW, et al. Vitamin D supplementation during pregnancy: double-blind, randomized clinical trial of safety and effectiveness. *J Bone Miner Res.* 2011 Oct;26(10):2341-57.
- Motamed S, et al. Efficacy of two different doses of oral vitamin D supplementation on inflammatory biomarkers and maternal and neonatal outcomes. *Matern Child Nutr.* 2019 Oct;15(4):e12867.
- Pal L, et al. Reproductive Medicine Network. Vitamin D Status Relates to Reproductive Outcome in Women With Polycystic Ovary Syndrome: Secondary Analysis of a Multicenter Randomized Controlled Trial. *J Clin Endocrinol Metab.* 2016 Aug;101(8):3027-35.
- Seyyed Abotorabi M, et al. The effect of vitamin D supplementation on insulin resistance, visceral fat and adiponectin in vitamin D deficient women with polycystic ovary syndrome: a randomized placebo-controlled trial. *Gynecol Endocrinol.* 2018 Jun;34(6):489-494.
- Wagner CL, et al. A randomized trial of vitamin D supplementation in 2 community health center networks in South Carolina. *Am J Obstet Gynecol.* 2013 Feb;208(2):137.e1-13
- Wehr E, et al. Effect of vitamin D₃ treatment on glucose metabolism and menstrual frequency in polycystic ovary syndrome women: a pilot study. *J Endocrinol Invest.* 2011 Nov;34(10):757-63.
- Wolsk HM, et al. Weiss ST, Litonjua AA. Vitamin D supplementation in pregnancy, prenatal 25(OH)D levels, race, and subsequent asthma or recurrent wheeze in offspring: Secondary analyses from the Vitamin D Antenatal Asthma Reduction Trial. *J Allergy Clin Immunol.* 2017 Nov;140(5):1423-1429.e5.
- Wu L, et al. Poor ovarian response is associated with serum vitamin D levels and pro-inflammatory immune responses in women undergoing in-vitro fertilization. *J Reprod Immunol.* 2019 Nov;136:102617.