“From Plate to Pregnancy: Nutrition and Lifestyle Strategies for Fertility”

Webinar Questions Answered by Dr. Judy Simon, MS, RDN, FAND, CHES

- **What if a patient is a lesbian and only "having unprotected sex" when trying to artificially inseminate to get pregnant? What would be considered infertility based on the definition for that patient?**

Failure to conceive after adequate, timed donor insemination attempts over the same time frame used for heterosexual couples. <35 years of age 1 year, >35 > 6 cycles

- **What percentage of new parents who experience fertility issues and then try to have a second child experience more or less fertility issues that nutrition can help with as they age?**

Age-related fertility decline affects all women**,** with chances of pregnancy and live birth significantly decreasing after age 35, accompanied by increased risks of aneuploidy and miscarriage. This age effect would apply regardless of prior fertility history.

- **I've seen that the diet/lifestyle of the male partner can influence symptoms during pregnancy. Is there any research supporting that?**

Research supports that paternal diet and lifestyle can influence pregnancy outcomes, though the evidence is more robust for offspring health than for maternal pregnancy symptoms specifically. The mechanisms involve epigenetic modifications to sperm that affect placental development and embryonic health, which can subsequently impact maternal complications.

Johnson J, Nair S, Singh D, Balasinor NH, Nishi K. A systematic review on the role of paternal factors in human placental development, function, and pregnancy-related disorders. J Assist Reprod Genet. 2025 Oct;42(10):3183-3216. doi: 10.1007/s10815-025-03594-3. Epub 2025 Jul 23. PMID: 40699405; PMCID: PMC12602764.

- **The large fertility center in my area promotes keto or BEBBIS diets. How can we combat misinformation? (BEBBIS is Bacon, Eggs, Butter, Beef, Ice cream (keto ice cream), Intermittent fasting, Salt. It is from a book by a doctor and promotes these foods, only 1 or 2 meals a day, consisting of ultra-high-fat animal foods)**

So frustrating! I would try to talk with the providers at the center, there is not research supported this advice!

- **Have you seen any disruption with thyroid issues and poor HPA axis?**

Yes! The mechanism behind functional hypothalamic amenorrhea (FHA)**,** a reversible form of anovulation caused by reduced GnRH pulse frequency. Psychosocial stress, undernutrition, and excessive exercise all activate the HPA axis.

Valsamakis G, Chrousos G, Mastorakos G. Stress, female reproduction and pregnancy. Psychoneuroendocrinology. 2019 Feb;100:48-57. doi: 10.1016/j.psyneuen.2018.09.031. Epub 2018 Sep 22. PMID: 30291988.

- What impact are GLP-1 agonist medications having on fertility?

Discontinuing GLP-1 RAs before or early in pregnancy is associated with excessive gestational weight gain**.** Women exposed to GLP-1 RAs gained approximately 3 kg more during pregnancy than matched unexposed women, with increased risks of preterm delivery, gestational diabetes, and hypertensive disorders.

Maya J, Pant D, Fu Y, et al. Gestational Weight Gain and Pregnancy Outcomes After GLP-1 Receptor Agonist Discontinuation. JAMA. 2025;334(24):2186–2196. doi:10.1001/jama.2025.20951

For women without PCOS the evidence is limited.

Merhi Z. Impact of the injectable weight-loss medications, glucagon-like peptide-1 receptor agonists, on reproductive health in non-polycystic ovary syndrome state. Curr Opin Obstet Gynecol. 2025 Aug 1;37(4):175-181. doi: 10.1097/GCO.0000000000001044. Epub 2025 May 12. PMID: 40459435.

- **Was low BMI looked at for IVF outcomes?**

A large U.S. national database analysis of nearly 500,000 IVF cycles found underweight women had modestly decreased intrauterine pregnancy (adjusted RR 0.97) and live birth rates (adjusted RR 0.95) per transfer compared to normal-weight women.

Kawwass JF, Kulkarni AD, Hipp HS, Crawford S, Kissin DM, Jamieson DJ. Extremities of body mass index and their association with pregnancy outcomes in women undergoing in vitro fertilization in the United States. Fertil Steril. 2016 Dec;106(7):1742-1750. doi: 10.1016/j.fertnstert.2016.08.028. Epub 2016 Sep 22. PMID: 27666564; PMCID: PMC11056966.

- **In the past, I believed even the AND recommended low-carb diets for those with PCOS. What do you think about this?**

The 2023 International Evidence-Based Guideline for the Assessment and Management of Polycystic Ovary Syndrome: Healthcare professionals and women should consider that there is no evidence to support any 1 type of diet composition over another for anthropometric, metabolic, hormonal, reproductive, or psychological outcomes.

Teede HJ, Tay CT, Laven JJE, Dokras A, Moran LJ, Piltonen TT, Costello MF, Boivin J, Redman LM, Boyle JA, Norman RJ, Mousa A, Joham AE. Recommendations From the 2023 International Evidence-based Guideline for the Assessment and Management of Polycystic Ovary Syndrome. J Clin Endocrinol Metab. 2023 Sep 18;108(10):2447-2469. doi: 10.1210/clinem/dgad463. PMID: 37580314; PMCID: PMC10505534.

- **What type/form of iron supplement is recommended for fertility? I have read that heme iron supplements can be inflammatory.**

For preconception and fertility optimization, ferrous salts given as a single morning dose on alternate days represent an evidence-based approach that balances efficacy with tolerability. There is no strong evidence that heme iron supplements are superior or inferior to non-heme iron for fertility, and the inflammatory concerns about heme relate more to pathological free heme than to oral supplementation.

Lin J, Lin K, Huang L, Jiang Y, Ding X, Luo W, Samorodov AV, Pavlov VN, Liang G, Qian J, Wang Y. Heme induces inflammatory injury by directly binding to the complex of myeloid differentiation protein 2 and toll-like receptor 4. Toxicol Lett. 2022 Nov 1;370:15-23. doi: 10.1016/j.toxlet.2022.09.007. Epub 2022 Sep 14.

- **What are the recommendations regarding cannabis, and is it the same for smoking vs edibles?**

ASRM and ACOG recommend that both men and women discontinue cannabis use when trying to conceive**,** regardless of the route of administration (smoking vs. edibles). There is no evidence distinguishing fertility effects between smoked cannabis and edibles—the reproductive concerns relate primarily to THC exposure itself rather than the delivery method.

Optimizing natural fertility: a committee opinion Practice Committee of the American Society for Reproductive Medicine and the Practice Committee of the Society for Reproductive Endocrinology and Infertility et al.Fertility and Sterility, Volume 117, Issue 1, 53 - 63

- **Can you share your thoughts on the new dietary guidelines - rec. for full-fat dairy, more meat, and reduced grains, and therefore reduced sources of folic acid.**

I find it conflicts with the needs of conception and pregnancy.
https://substack.com/home/post/p-184891956

- **Was iron supplementation needed for those clients who followed a plant-forward diet?**

I would make the same recommendations.

- **What is your expert opinion on the use of melatonin and CoQ10 for oocyte quality?**

Melatonin has been shown to improve clinical pregnancy rates in women with ART, but effect on live birth rates remains uncertain. In women with unexplained infertility, melatonin (3-6 mg) ameliorated intrafollicular oxidative imbalance and improved oocyte quality, translating to slight increases in pregnancy/live birth rates.

Tang H, Hao J, Xu B, Wang Y, Li Y, Zhao J. Melatonin supplementation and outcomes of assisted reproductive technology: a systematic review and meta-analysis. BMC Pregnancy Childbirth. 2025 Nov 25;26(1):9. doi: 10.1186/s12884-025-08503-1. PMID: 41286761; PMCID: PMC12764091.

COQ10
Supplementation duration of at least 2 months appears optimal for CoQ10. While neither supplement has definitively proven to increase live birth rates in large trials, their effects on oocyte and embryo quality markers are biologically plausible and clinically meaningful, particularly for women with DOR, POR, advanced maternal age, or PCOS.

Li X, Zhao Q, Lin G, Xu L. The auxiliary effect of oral nutritional supplements on fertility in women with diminished ovarian reserve: a systematic review and meta-analysis. Ann Med. 2025 Dec;57(1)

- **Can you share references for red meat intake risk, and do these include grass-fed organic lean varieties?**

I don't believe current studies have differentiated between grass-fed red meat. Here are some of my sources:

Optimizing natural fertility: a committee opinion Practice Committee of the American Society for Reproductive Medicine and the Practice Committee of the Society for Reproductive Endocrinology and Infertility et al.Fertility and Sterility, Volume 117, Issue 1, 53 – 63

Carson SA, Kallen AN. Diagnosis and Management of Infertility: A Review. JAMA. 2021;326(1):65–76. doi:10.1001/jama.2021.4788

Alesi S, Habibi N, Silva TR, Cheung N, Torkel S, Tay CT, Quinteros A, Winter H, Teede H, Mousa A, Grieger JA, Moran LJ. Assessing the influence of preconception diet on female fertility: a systematic scoping review of observational studies. Hum Reprod Update. 2023 Nov 2;29(6):811-828.

The "pro-fertility diet" associated with improved live birth rates in women undergoing ART emphasized seafood rather than meats, with higher adherence showing a 53% increase in odds of live birth per 4-point increase in diet score.

- **Just curious, do we know how big an impact the microbiome has on fertility for men and women?**

The microbiome represents a modifiable factor in fertility, though the field is limited by methodological heterogeneity, small sample sizes, and lack of standardized definitions. The strongest evidence supports screening for endometrial dysbiosis in recurrent implantation failure, where treatment has shown favorable pregnancy outcomes (88.9% clinical pregnancy rate post-treatment).

Harada M, Wada-Hiraike O, Osuga Y, Hirota Y. Comparison of diagnostic tests for chronic endometritis and endometrial dysbiosis in recurrent implantation failure: Impact on pregnancy outcomes. Sci Rep. 2025 Mar 10;15(1):8272.

- **Would you recommend supplementing myo/d-chiro inositol (40:1) for PCOS when androgens are not elevated? Would you recommend inositol without PCOS for insulin resistance?**

Yes, myo-inositol supplementation can benefit PCOS patients even without elevated androgens, as the mechanism extends beyond androgen reduction to include direct ovarian effects independent of insulin sensitization. Clinical studies have demonstrated that the 40:1 MI/DCI ratio improves reproductive function in PCOS women even in the absence of insulin resistance

Lentini G, Querqui A, Monti N, Bizzarri M. PCOS and Inositols - Advances and Lessons We are Learning. A Narrative Review. Drug Des Devel Ther. 2025 May 21;19:4183-4199.

- **In terms of red meat, has the research examined quality or preparation methods of red meat, given its nutrient density (iron, B12/folate, high-quality protein)? High heat methods vs pressure cooking for nutrient retention and reduced acrylamide content, given its pro-inflammatory status.**

Research has extensively examined how cooking methods affect carcinogen formation in red meat**,** though studies specifically examining meat quality (grass-fed vs. conventional) or linking preparation methods to fertility outcomes are lacking.

Modern cooking technologies that apply low temperature with minimum contact and faster cooking times reduce hazardous compound generation while minimizing nutritional losses.

- **Do you see the same improvements in fertility with omega-three supplementation versus fish 2x/week?**

I see more improvement with fish vs omega 3. But if someone does not eat fish I would highly encourage supplementation.

Stanhiser J, Jukic AMZ, McConnaughey DR, Steiner AZ. Omega-3 fatty acid supplementation and fecundability. Hum Reprod. 2022 May 3;37(5):1037-1046.

- **What iron can be consumed by those who cannot tolerate an MVI?**

Extended release ferrous sulfate, iron bisglycinate, Feosol with Bifera or alternate day dosing.

- **Do you recommend L-methyl folate if someone has had the genetic test that shows they lack the gene to break down folic acid adequately?**

https://www.cspi.org/article/folic-acid-best-choice-healthy-pregnancy

- **The Fertility Diet Recommendations include "full fat dairy," - how do you go about discussing saturated fat as a whole, especially considering the new DGA?**

The new DGA recommendations do not include any recommendations for fertility and pregnancy. They continue to recommend less than 10% kcal form sat fat and one full fat dairy fits into those guidelines.

- **My fertility doctor also told me to take DHEA. Thoughts?**

I would ask your provider why they are recommending it, newer research is not supporting its use. A 2022 systematic review in the American Journal of Obstetrics and Gynecology similarly found no significant differences in oocytes retrieved, clinical pregnancy, or live birth rates with DHEA compared to placebo, while testosterone showed potentially beneficial effects.

Neves AR, Montoya-Botero P, Polyzos NP. Androgens and diminished ovarian reserve: the long road from basic science to clinical implementation. A comprehensive and systematic review with meta-analysis. Am J Obstet Gynecol. 2022 Sep;227(3):401-413.e18.

- **Folic acid versus folate in MTHFR population (confirmed). It's my understanding that the research is limited because folic acid is cheaper, more readily available, and more stable for long-term data collection. Is this more because when supplementation was introduced in 1998, synthetic Folic Acid was the only option, and the funding to look back into this is limited and seen as "not necessary"?**

https://www.cspi.org/article/folic-acid-best-choice-healthy-pregnancy 67% of the population has the MTHFR variant. Our whole grains and cereals are fortified with folic acid. We have no studies showing methylated folate reduces risk for NTD.

- **Is folic acid the main nutrient you look for in a prenatal supplement?**

Folic acid, iodine, iron, B12 Zinc and Vitamin D (in general)

- **What have you seen with low AMH levels in terms of pregnancy rates? Have you ever seen it improve?**

Low AMH predicts reduced oocyte yield but does not preclude pregnancy**.** A meta-analysis found a non-linear positive relationship between AMH and cumulative live birth (CLB) after IVF/ICSI, but no AMH threshold below which live birth could not be achieved. Age remains the strongest predictor of success. In women <35 years with AMH <10th percentile, clinical pregnancy rates were 31.3% vs 57% in those with higher AMH; in women ≥35 years, the gap narrowed.

Peigné M, Bernard V, Dijols L, Creux H, Robin G, Hocké C, Grynberg M, Dewailly D, Sonigo C. Using serum anti-Müllerian hormone levels to predict the chance of live birth after spontaneous or assisted conception: a systematic review and meta-analysis. Hum Reprod. 2023 Sep 5;38(9):1789-1806.

- **When discussing supplements with patients/clients, do you make suggestions but advise for patients to speak with their primary care provider / OB before starting any supplements?**

Not unless there is something we need their guidance for.

- **Do you see women who have been on oral contraceptives having a hard time with fertility?**

Oral contraceptive (OC) use does not cause long-term infertility**,** though there is a transient delay in return of fertility of approximately 2-3 menstrual cycles after discontinuation. OCs can mask underlying conditions like PCOS that may only become apparent when women stop contraception and attempt to conceive.

Mikkelsen EM, Riis AH, Wise LA, Hatch EE, Rothman KJ, Sørensen HT. Pre-gravid oral contraceptive use and time to pregnancy: a Danish prospective cohort study. Hum Reprod. 2013 May;28(5):1398-405. doi: 10.1093/humrep/det023.

- **Do you recommend women trying to conceive avoid anything or focus on adding more nutritious foods?**

I focus more on what to add in! I highly recommend my book Getting to Baby by Thyer and Simon.

- **A lot of reusable water bottles are plastic. Are these safe?**

Disposable water bottles are usually BPA-free.

- **What about Environmental Working Group (EWG) or Yuka for checking the safety of products?**

I don't recommend EWG because they tend to overstate health risks with no peer review. I am not familiar with YUKA.

- **Can you share the handout you mentioned you gave regarding the best cleaning product/practices, etc.?**

https://www.hazwastehelp.org/health/documents/recipes-for-safer-cleaning-kit.pdf

- **Why do a lot of prenatal multivitamins not contain choline?**

It's difficult to include it in supplements because it is bulky. If a patient is vegan or vegetarian, I recommend a 350 mg separate choline supplement.

- **I just got my faucet water tested in Huntington Beach and discovered uranium at a level higher than the recommended level! Upon heating (H20 evaporates) and uranium gets concentrated in the food when used for cooking oatmeal, coffee, cooked rice, etc. Do you think we need to investigate the water used for cooking and its impact on fertility?**

Use alternative water sources**:** If levels exceed 30 µg/L, switch to bottled water or install a reverse osmosis filtration system (effective for uranium removal)

- **Do you have an opinion on switching from a supplement with 5MTHF to folic acid or adding folic acid, if a pregnant person is >20 weeks? Does this addition or switch still matter if outside the higher risk window for NTDs?**

I would not recommend switching after 20 weeks.

- **What can you recommend for women over 40 with thin lining, going through IVF, but cannot transfer embryos?**

I am not familiar with any direct studies; I work with them to optimize their nutrition intake as discussed in my talk.

- **From your research, is there anything that influences the mother's early pregnancy symptoms/morning sickness?**

Yes, progesterone supplementation in IVF pregnancies appears to contribute to first-trimester nausea. Multiple gestation, younger maternal age, history NVP, female fetus, Asian or Black ethnicity, Type 1 DM

Dekkers GWF, Broeren MAC, Truijens SEM, Kop WJ, Pop VJM. Hormonal and psychological factors in nausea and vomiting during pregnancy. Psychol Med. 2020

- **How many appointments might each patient get with you?**

Anywhere from one to ten or more. It really depends on each person's situation. I follow many of my patients every 4-6 weeks preconception, pregnancy and postpartum.

- **Do you have any recommendations for beauty care products that don't contain those phthalates or perfumes?**

I ask my patients to look on labels or websites for what they currently use. Sometimes within one line some products are scented and others have no fragrance.

- **Do you have lists of store-bought items that patients can use? Especially those that won't use vinegar, baking soda, etc.? Ex. Myers, Methods?**

Check brands like Ecos, Seventh Generation, there are many unscented brands.

- **What specific bloodwork would be useful to know about ovarian reserve? is AMH useful?**

AMH is the most direct serum biomarker for quantifying the relative pool of primordial ovarian follicles and is useful for ovarian reserve assessment, though female age remains the most important predictor of live birth regardless of ovarian reserve**.**

Along with an AMH and ultrasound to measure antral follicle count, would be part of ovarian reserve assessment.

- **What are your general considerations for CKD and fertility?**

I have not worked with CKD and fertility; I would recommend a consultation with Maternal Fetal Medicine specialists. (similar to all chronic diseases)

- **While the guideline you shared for activity suggests at least 30 minutes daily, is there a defined cap on safe activity duration?**

I am not aware of a cap unless the amount and type of physical activity is impacting ovulation or energy balance.

- **What are the 2 types of inositol?**

The two types of inositol used in fertility treatment are myo-inositol (MI) and D-chiro-inositol (DCI)**.** [1-2] Both are stereoisomers of inositol (a polyalcohol belonging to the vitamin B complex) and function as insulin-sensitizing agents, but they have distinct hysiological roles in reproduction.

Showell MG, Mackenzie-Proctor R, Jordan V, Hodgson R, Farquhar C. Inositol for subfertile women with polycystic ovary syndrome. Cochrane Database Syst Rev. 2018 Dec 20;12(12)

- **Anything else besides the inositol that can help prevent gestational diabetes?**

Combined diet and exercise interventions, vitamin D supplementation, and metformin for women with insulin resistance. 150 minutes of exercise week. Low glycemic, high fiber diet. Plant forward diet.

Simmons D, Gupta Y, Hernandez TL, Levitt N, van Poppel M, Yang X, Zarowsky C, Backman H, Feghali M, Nielsen KK. Call to action for a life course approach. Lancet. 2024 Jul 13;404(10448):193-214.

- **Any data you know of regarding male fertility and hot tub/sauna use?**

Hot tub and sauna use can negatively impact male fertility by causing scrotal hyperthermia, which impairs spermatogenesis, reduces sperm count and motility, and damages sperm DNA integrity. These effects appear to be reversible upon cessation of heat exposure, with recovery typically occurring within 3-6 months.

Garolla A, Torino M, Sartini B, Cosci I, Patassini C, Carraro U, Foresta C. Seminal and molecular evidence that sauna exposure affects human spermatogenesis. Hum Reprod. 2013

- **Also, coffee!!! I didn't hear anything about this. Thoughts?**

Moderate coffee/caffeine consumption (1-2 cups per day or ~200 mg) has no apparent adverse effects on fertility or pregnancy outcomes**,** according to the American Society for Reproductive Medicine (ASRM). However, high caffeine intake (>500 mg/day or >5 cups) has been associated with decreased fertility (OR 1.45, 95% CI 1.03-2.04) and may increase miscarriage risk.

Lyngsø J, Ramlau-Hansen CH, Bay B, Ingerslev HJ, Hulman A, Kesmodel US. Association between coffee or caffeine consumption and fecundity and fertility: a systematic review and dose-response meta-analysis. Clin Epidemiol. 2017 Dec 15;9:699-719.

- **What is that mercury document from?**

Fish Safety

- **Thoughts on pre-conception supplements for men?**

I personally recommend Vitamin D for men and Omega 3 if they are fish eaters.

The evidence on preconception supplements for men is mixed, with some supplements showing improvement in sperm parameters but limited high-quality evidence demonstrating improved live birth rates**.**

de Ligny W, Smits RM, Mackenzie-Proctor R, Jordan V, Fleischer K, de Bruin JP, Showell MG. Antioxidants for male subfertility. Cochrane Database Syst Rev. 2022 May 4;5(5):CD007411.