

Pregnant pause

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For 1 in 8 couples in the United States today, the path to pregnancy is riddled with roadblocks. Experts point to a host of medical, environmental and social factors, from pesticides in food to hormone-disrupting stress. Chief among the fertility-zappers is age. According to the Centers for Disease Control and Prevention, 20 percent of American women now have their first child after age 35. Unfortunately, about one-third of them will confront fertility barriers, thanks to diminished egg reserves or a heightened risk of other reproductive challenges.

When a couple have trouble conceiving, it's usually the woman who finds herself sweating it out in the stirrups. But while one-third of infertility problems can be traced to the female partner, the same number can be attributed to the man (see "Sperm Zappers," pg. 48). Both partners have issues 10 percent of the time, and 20 percent of cases are frustratingly labeled "unexplained."

Most female infertility cases stem from ovulatory problems, including hormone imbalances or polycystic ovarian syndrome

Trying to conceive? Don't put all your eggs in one basket. Natural remedies can complement or even replace traditional treatments.

Some women who undergo fertility treatment might not actually need it.



(PCOS), a hormonal disorder characterized by irregular periods, excess hair growth and acne. Others face thyroid disease; mechanical issues like blocked fallopian tubes; or endometriosis, a painful disorder in which the uterine lining grows outside the uterus. Certain culprits, including blocked tubes or very low sperm counts, require surgery or assisted reproductive techniques like in vitro fertilization (IVF). But some experts say a quick-fix mentality on the part of both patients and physicians has contributed to an over-reliance on IVF, which costs about \$12,000 per cycle and can be exceptionally taxing on a woman's body, emotions and relationships.

A growing number of practitioners are advocating a blend of holistic care with mainstream reproductive endocrinology. "Lifestyle is a huge factor," says Sami S. David, M.D., assistant professor of reproductive medicine at Mount Sinai Medical Center in New York City and co-author of *Making Babies: A Proven 3-Month Program for Maximum Fertility* (Little Brown).

While you can't change your age, you can control the foods you eat, the way you handle stress and your environment. We asked the experts—many of whom used a combination of traditional and complementary approaches to surmount their own fertility challenges—for their top recommendations. Choose the methods that suit your physical or emotional needs; if you haven't conceived after three to six months (depending on your age and patience level), consult a reproductive endocrinologist.

Stress less ➤

"People going through infertility have similar stress levels to cancer, AIDS and heart disease patients," says Alice Domar, Ph.D., executive director of the Domar Center for Mind/Body Health at Boston IVF and author of *Conquering Infertility* (Penguin). The link between stress and infertility is hotly debated—a recent study



Sperm like it cool: Buy him some boxers.

Sperm zappers

American men's sperm counts are dropping, thanks to obesity, prenatal chemical exposure and other factors. Fortunately, men can benefit from lifestyle modifications in as few as three months, as they continually generate new sperm. Encourage your man to adopt these changes: **Stop smoking** This habit damages sperm DNA.

Check out his meds Some blood pressure drugs lower sperm count. Other common culprits: diuretics and ulcer, epilepsy and antifungal meds. **Reduce stress** A 2010 study published in *Fertility and Sterility* found an inverse relationship between stress and sperm quality.

Keep 'em cool Don't use the laptop on the lap or keep the cellphone in pants pockets.

Be fruitful and multiply Antioxidant-rich, produce-heavy diets (as well as antioxidant supplements) have been shown to improve sperm quality.

Reducing stress won't guarantee success, but it can make "trying" less trying.



BPA exposure and heavy alcohol or marijuana use can zap sperm.



in the *British Medical Journal*, for example, found no link between emotional distress and IVF failure. But many experts believe chronic stress has hijacked our primitive fight-or-flight response, causing the pituitary gland to unnecessarily release endorphins that suppress reproductive hormones.

A landmark 2000 Harvard Medical School study found that women who participated in a 10-week mind-body program, including relaxation and yoga, were nearly three times more likely to conceive than women who didn't. And a 2009 Domar-led study found that women who took part in a mind-body stress management program before or during their second IVF cycle had a 160 percent higher pregnancy rate compared with those who did not.

STRIKE A POSE "Yoga reduces the stress hormone cortisol and induces the relaxation response," explains Tami Quinn, a registered yoga teacher and co-founder of the Chicago-based holistic fertility center Pulling Down the Moon. Specific poses, such as *Viparita Karani* (Legs up the Wall), can also increase blood flow to the ovaries and uterus, potentially thickening the uterine lining; this can help with embryo implantation. Stick with gentle hatha or restorative yoga—this is not the time for Bikram ("hot") yoga. **Try:** Pulling Down the Moon's *Yoga Practices for Fertility* DVD (\$25; pullingdownthemoon.com)

ON PINS AND NEEDLES A 2008 *British Medical Journal* study found that women who underwent IVF and acupuncture together were 65 percent more likely to conceive than women who only underwent IVF. According to acupuncturist-herbalist and *Making Babies* co-author Jill Blakeway, L.Ac., acupuncture works by promoting uterine blood flow. It can also quiet post-IVF uterine contractions, encouraging implantation, and decrease levels of cortisol (a "stress hormone") and prolactin; both are known to disrupt reproductive function.



Healthy fats are fertility-friendly.

Eat to conceive

Jorge E. Chavarro, M.D., Sc.D., an assistant professor of nutrition and epidemiology at the Harvard School of Public Health and author of *The Fertility Diet* (McGraw-Hill), followed 18,000 participants in the long-running Harvard Nurses' Health Study who were trying to get pregnant. Among his findings:

GET YOUR PROTEIN FROM PLANTS Foods that elevate insulin levels contribute to ovulatory disorders. "Not all proteins are digested the same," Chavarro explains. "Animal proteins require more insulin to be secreted." Beef and poultry, specifically, were associated with infertility, but replacing 25 grams of animal protein with 25 grams of plant protein (beans, peas, nuts) was related to a 50 percent lower risk of ovulatory infertility.

BAN TRANS FATS Found primarily in packaged baked and fried foods, trans fats elevate insulin levels. Monounsaturated fats, like those found in avocados, nuts and olive oil, are associated with a decreased risk of infertility.

AVOID SUGAR SPIKES Quickly digested carbs, such as white bread, potatoes and soda, spike blood sugar, promoting insulin secretion. Carolyn Dean, M.D., N.D., co-author of *The Yeast Connection and Women's Health* (Future Health), dislikes these carbs for another reason: They encourage yeast overgrowth. "Yeast toxins can cross-react with hormones necessary for pregnancy, blocking their receptor sites," she says. Dean recommends

Like yoga, guided imagery can focus and calm your mind. Try visualization CDs from circlebloom.com.



Can the cola: Blood sugar spikes lead to ovulation problems.



Cacao and some other plant foods contain magnesium, which may facilitate conception.

eliminating sugar and white flour, eating fiber-rich, slowly digested complex carbohydrates and incorporating plain yogurt or probiotic supplements to encourage the growth of healthy gastrointestinal bacteria, which favorably compete with yeast toxins for space.

Try: Culturelle Probiotics (\$15 for 30 capsules, vitacost.com) or Lifeway plain organic kefir (\$5 for 32 ounces; lifeway.net)

TEA UP A study published in the *American Journal of Public Health* found that tea drinkers doubled their odds of conceiving, perhaps because of tea's antioxidant content. Note: Blakeway advises avoiding red raspberry leaf tea because it is linked to miscarriage.

Supplement smartly >>

MELLOW MAGNESIUM This mineral is thought to keep the fallopian tubes relaxed, facilitating the travel of sperm to meet egg. In IVF, it can calm the uterus to encourage implantation. Dean suggests getting 750 milligrams daily. The mineral is also found in seaweed, cacao, leafy greens, nuts and seeds. **Try:** Natural Calm Magnesium Citrate (\$23 for 16 ounces; calmnatural.com)

SOMETHING FISHY Holistic nutritionist Sally Kravich, M.S., CNHP, recommends fish oil (800-plus milligrams EPA and 500-plus milligrams DHA per day) to balance your hormones and encourage healthy fetal brain development.

Try: Nordic Naturals Ultimate Omega (\$60 for 180 softgels; vitaminshoppe.com)

HELPFUL HERBS Chinese herbs are often used in conjunction with acupuncture to

address elevated follicle stimulating hormone (FSH) levels, repeat miscarriage, unexplained infertility and PCOS, says Oakland, Calif.-based acupuncturist and herbalist Zoe Cohen, L.Ac. Multicomponent formulas are generally tailored for each patient based on her diagnosis. Cohen cautions that herbs can be deceptively powerful and may interact with fertility drugs, so be sure to see a licensed herbalist experienced in treating infertility.

BLEND IN A BOTTLE Not ready to jump head-first into Chinese herbs? Stanford University School of Medicine researchers found that FertilityBlend, a combination of prenatal vitamins and fertility-enhancing herbs, increases the chances of conceiving. (FertilityBlend for Men boosts sperm count.)

Try: FertilityBlend for Women (\$30 for 90 capsules; fertilityblend.com)

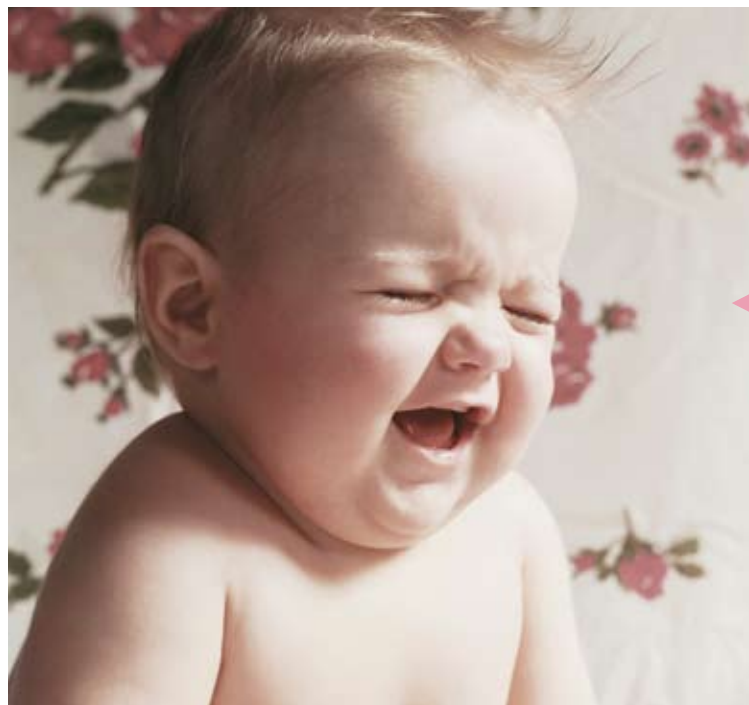
Clean up your act >>

Many of the chemicals in products we use every day contain endocrine-disrupting compounds called xenoestrogens, which mimic estrogen in the body and block real estrogen from doing its work (bisphenol-A, or BPA, and phthalates are two examples). High blood levels of the chemicals used in nonstick cookware and waterproof clothing have been shown to significantly increase female infertility risk.

David suggests eating organic foods and

Send in the clowns An Israeli study found that women who were visited by "medical clowns" immediately following IVF embryo transfer were more likely to conceive than patients who missed out on the laughs.

Laughter might be good medicine for infertility.



Good Medicine

keeping your home as green as possible: Avoid microwaving in plastic containers, steer clear of cosmetics containing phthalates or parabens and include phytoestrogens, such as flaxseed or soy, in your diet; they'll bind to the estrogen receptor sites before xenoestrogens can.

Avoid weight extremes >>

According to the American Society for Reproductive Medicine, 12 percent of female infertility cases are a result of weighing too little or too much. That's because estrogen is produced in fat cells. Too little body fat and the body can't produce enough estrogen to fuel ovulation; too much and the body reacts as if it were on hormonal birth control. Gaining just 6 to 8 pounds (if underweight) or losing 10 to 14 pounds (if overweight) may do the trick.

Exercise in moderation >>

David recommends gentle exercise, avoiding workout intensities that elicit an endorphin rush, as this may suppress hormone and egg production. A 2006 study in *Obstetrics & Gynecology* found that IVF patients who reported exercising four hours or more per week for one to nine years were 40 percent less likely to have a live birth than women who did not exercise. Women are advised not to work out while undergoing IVF treatment because doing so could harm the ovaries. ✕

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Stick with old-fashioned cleaning methods.

Moderate exercise reduces stress while promoting circulation to the pelvic region.



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