

Getting Pregnant: Ways to Improve Your Fertility

**It may be the little things that count when it comes to boosting fertility.
Three experts help us understand what you may be doing wrong.**

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For some couples fertility and getting pregnant are as easy as eating cake. For others, the world of reproductive technology becomes the only hope for conception.

In between, however, are a growing number of couples playing the fertility "waiting game." Some may not yet be ready to turn to technology while others may have failed to discover their problem even in a high-tech arena.

It is for this group that many physicians are now looking to the everyday factors that might make a difference.

"Sometimes everything looks good from a treatment standpoint, but still women don't get pregnant -- so we have begun looking at other factors that might play a role," says Margareta D. Pisarska, MD, co-director of Center for Reproductive Medicine at Cedars Sinai Medical Center in Los Angeles and editor-in-chief of the American Society for Reproductive Medicine News.

Behind the Fertility Smokescreen

Among the most important of these outside factors, say doctors, is smoking. While most folks are aware that cigarettes and pregnancy don't mix, fertility experts say fewer seem to realize the impact that smoking has on fertility.

"It can dramatically reduce both male and female fertility and it really impacts conception rates," says Frederick Licciardi, MD, associate director of reproductive endocrinology at NYU Medical Center and associate professor at the NYU School of Medicine.

In one study published in the journal *Fertility and Sterility*, sperm counts averaged 17% lower in smokers. More recently, a Polish study showed smoking dramatically lowered sperm count and disrupted the health of sperm. In women, Pisarska says smokers not only have a higher rate of infertility overall, but also those who do get pregnant take a much longer time to conceive.

"We also know that smokers undergoing fertility treatments usually require much higher doses of fertility medication than nonsmokers," says Pisarska.

But it's not just the smoke from your own cigarettes that matters. In a study recently published in *Human Reproduction* doctors showed that secondhand smoke also reduced the pregnancy rates in women undergoing high-tech infertility procedures.

The good news: Reduce your exposure to cigarette smoke and you may get pregnant faster and easier! In one study published in the journal *Fertility and Sterility*, doctors found that men who stopped smoking experienced a rise in sperm count of up to 800%!

Reduce Stress, Fertility Prospers

Although the links between stress and fertility are slightly less clear, increasingly doctors say it exists.

"There's no large data showing an obvious direct link, but that said, we are seeing more and more smaller studies that indicate stress-reduction techniques do have an effect on fertility, and I believe it's only a matter of time before someone puts all the pieces together and sees the overall impact of stress on the reproductive system," says fertility expert says Allen Morgan, MD, director of Shore Institute for Reproductive Medicine in Lakewood, N.J.

In a study under way by Morgan and his colleagues, women undergoing high-tech infertility treatments are being treated to a relaxing foot and leg massage just prior to embryo transfer. The results so far, he says, are promising.

Even more encouraging are the findings of Harvard University stress expert Alice Domar, PhD. She reports that a number of women undergoing stress-reducing therapies to help them deal with the frustrations of infertility actually got pregnant -- simply by learning how to relax.

Food and Fertility: The Latest News

While few folks connect diet to fertility, new research shows that very often those who are infertile are also lacking important nutrients in their diet.

Indeed, in a new study cited in *OBGYN News*, a group of Harvard researchers found that 79% of infertile couples had a lower-than-average intake of foods high in antioxidants -- like fruits and vegetables.

The finding takes on even greater importance in light of previous research showing that both vitamins C and E may play roles in male fertility. In one study published in the *Annals of the New York Academy of Medicine*, doctors found that after one week of daily doses of 1,000 milligrams of vitamin C, sperm counts rose by some 140%.

More recently, a study published in the *Archives of Andrology* showed the antioxidants vitamin E and selenium improved the ability of sperm to swim -- a skill necessary to reach the egg.

Pisarska says one of the more interesting new food-fertility associations focuses on fish. In studies published in the *British Journal of Obstetrics and Gynaecology* a group of Hong Kong researchers found that couples with unexplained infertility as well as men with abnormal semen also had high blood levels of mercury. Not coincidentally, the men and women also reported a diet high in fish.

"If you are having trouble getting pregnant you might want to try eating less seafood," says Pisarska.

Since obesity is also considered a leading fertility blocker in women, Pisarska tells WebMD that for some women, cutting down on calories overall can give fertility a boost.

"If you have polycystic ovary disease, losing as little as 5% of your body weight can encourage ovulation and pregnancy," says Pisarska. In polycystic ovary disease there is absent or diminished ovulation, excess male hormones, and resistance to the action of the hormone insulin. Many of these women are obese or overweight.

Mother Nature's Fertility Helpers

Centuries-old folklore is steep in natural fertility boosters. But it wasn't until recently that science entered Mother Nature's garden. In fact, in just the past two years alone a number of credible studies have emerged showing that certain nutrients and plants can offer a fertility boost to both men and women.

In research published in the journal *Reproductive Biomedicine Online*, a group of German doctors show that some natural remedies may work for men. The authors show that sperm quality and function improved with the intake of complementary food supplementation using either a combination of zinc and folic acid, the antioxidant Astacarox, or an energy-providing combination containing (actyl)-carnitine (Proxeed). The latter two also boosted the success of intrauterine insemination and spontaneous pregnancy rates.

Moreover, in the journal *Fertility and Sterility* doctors reported that men with fertility problems who took a daily dose of 66 milligrams of zinc and 5 milligrams of folic acid for nearly six months saw a 74% increase in their sperm counts.

Even more recently, studies published in the journal *Fertility and Sterility* revealed that both L-carnitine and L-acetyl carnitine improved sperm in a number of areas key to fertilization.

"We don't know yet how all this treatment translates into pregnancy rates, but it's clear that sperm is being impacted in a positive and important way," says Pisarska.

And when it comes to female fertility, Mother Nature did not forget she is a woman. In a small study published in the *Journal of Reproductive Medicine* doctors found the nutrient formula in a supplement known as Fertility Blend increased conception rates. It's key

ingredients: folic acid, vitamins E, B-6, and B-12, iron, magnesium, zinc, the amino acid L-arginine, selenium, the herb chasteberry (also known as vitex), and green tea.

Indeed, research on infertile women aged 24 to 46 found that those who took the supplement twice a day for three months experienced a measurable increase in both midcycle basal body temperature and progesterone levels -- both of which are used to assess ovulation. The comparison group saw no rise.

Within five months, one-third of the women taking the supplement conceived, compared with none of the women who were not given the supplement.

Similarly, a German study found pregnancy rates hit as high as 82% among the women using a vitex supplement, compared with just 45% in the control group.

Sleep and Pesticides -- New Fertility Robbers

While a number of factors can help boost fertility, there are some that can diminish your chances of conception. Among one of the most important is exposure to pesticides.

"Many can act on estrogen receptors; they may not be estrogens, but they do in the body what estrogen does, and since estrogen is the hormone involved in fertility, the whole issue gives rise for concern," says Lucciardi.

In study published in the journal *Biology of Reproduction* doctors found exposure to the manmade chemical methoxychlor (a member of the DDT family) reduced testosterone levels, which may, in turn, reduce male fertility. In a new study just released by Yale University, researchers found this same pesticide -- which is used to kill flies, mosquitoes, and other insects -- can also impair the function of a woman's reproductive system.

Indeed, the impact of pesticides overall is of such concern that Pisarska says the American Society of Reproductive Medicine has formed a task force to examine the global impact of these chemicals on male and female fertility.

The good news here: Taking steps to avoid exposure -- particularly in your home and yard -- may help improve your fertility profile overall.

Although the impact is not quite as direct, another factor that could impact fertility: Getting more sleep! The link here, say experts, is the hormone leptin, known for being an appetite and weight-regulation hormone. Researchers have found that it plays a critical role in female fertility. Leptin levels falls when we are sleep-deprived. Perhaps not coincidentally, researchers have now found that in some infertile women, leptin levels are low.

Moreover, a study conducted at Beth Israel Deaconess Medical Center showed that giving leptin injections twice a day to female athletes who had stopped menstruation (and hence ovulating) for three months not only raised levels of this hormone but also helped ovulation kick in.

Can you do the same thing by simply getting more sleep? Experts say they aren't sure yet. But Licciardi tells WebMD that "if you are chronically sleep deprived you are likely to have some irregular cycles -- and that in turn means your ovulation is being affected, which can certainly reduce your chance for conception."

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