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## **Relax To Conceive?**

**It's Well Known That Infertility Causes Stress. Some Who Try To Assist Couples Believe The Reverse May Also Be True.**

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The five women who have gathered for Barbara Blitzer's workshop on a recent Thursday night are trying to make their bodies a little warmer. They're seated in a circle of chairs and couches in her cramped Chevy Chase office, their eyes closed and tiny thermometers taped to finger pads. Blitzer, a social worker who specializes in infertility problems, guides them through a meditation -- "My hands are heavy and warm. I am at peace," she chants slowly. "My hands are heavy and warm."

Jaws unclench, shoulders soften against pillows and -- if Blitzer's exercise is working -- heartbeats slow. It's the relaxation response, she explains, where blood vessels dilate and the hands and feet warm with the increased blood flow.

Indeed, when she stops and asks her group to look at their thermometers, one woman's skin temperature (subject to much more variation than body temperature) has risen 13 degrees. Success.

Partly.

The ultimate goal for these women is not to increase their blood flow, but to have a child. The hope tonight is that they'll learn how they might help the process along.

While the idea that reducing stress can improve fertility is controversial, it's not without scientific basis. In recent years, numerous studies in peer-reviewed medical publications have tied stress -- both psychological and physical -- to amenorrhea (absence of menstruation), reproductive dysfunction and lower implantation rates in women undergoing in vitro fertilization (IVF). The National Institutes of Health has funded research into the relationship between stress and fertility, and researchers at Harvard and Stanford universities are also studying the issue.

But much of mainstream medicine remains guarded about the stress-fertility connection, a fact reflected on the Web site of the American Society for Reproductive Medicine (ASRM), a professional organization for infertility specialists. There, a patient fact sheet dated 1996 notes there is "very little evidence that infertility can be caused by stress." And an October 2001 press release by the group expresses only cautious optimism about a study linking stress levels to the success rates of infertility treatments.

"We are concerned about conveying the idea that if you just relax, you will get pregnant," said ASRM spokesman Sean Tipton. "People think [infertility] is something patients have control of; that's not the case." Still, Tipton noted, nearly every infertility clinic has a mental health specialist to counsel patients -- but not only about stress and anxiety.

The key research question, of course, is not whether stress and fertility are linked -- there's a good deal of evidence many women find infertility stressful -- but whether decreasing stress can increase fertility. At least one study, conducted at Beth Israel Deaconess Medical Center in Boston and published in the journal *Fertility and Sterility*, found it can.

"It's been well documented that infertility causes anxiety . . . and in the last two or three years there have been more studies that show stress negatively affects fertility," said study leader Alice Domar, who heads the center's Mind/Body Center for Women's Health. "What we need to find out is, can you increase pregnancy rates by decreasing distress before IVF treatments begin?"

Blitzer's workshops are based on the Beth Israel research.

Blitzer workshop alumna Nina Lagervall of Mount Rainier swears the program works. Lagervall, 40, calls her healthy pregnancy two years ago a direct result of the stress-reduction techniques she learned through Blitzer.

"I was pretty much at my last straw," said Lagervall, who had undergone three years of drug regimens and four failed IVF cycles. On the fifth try, which followed several sessions with Blitzer, her doctor was "amazed" at how well she responded. Said Lagervall, "It seemed to me that clearly working with Barbara had something to do with it."

That stress might undermine fertility is not such a radical idea, says Blitzer, given all we know about how the mind can affect body chemistry. Studies have shown that depression weakens the immune system and that prolonged stress can (among many other things) increase risk of heart disease and exacerbate symptoms of diabetes.

But accept the possibility that a woman can control her stress level and therefore her fertility, and you're faced with the unsettling idea that infertility may be partly her fault.

Blitzer and many other mind-body proponents tread gingerly here, struggling to separate the assumption of control from the burden of responsibility.

James Gordon, chairman of the Clinton-appointed White House Commission on Complementary and Alternative Medicine Policy and director of the Center for Mind-Body Medicine in Washington, says he is used to confronting the difficulty.

With mind-body work, he sighs, "Blame is always a problem. You have to learn what you can and accept that you're not in control of everything." Meaning your effort may not be able to greatly boost either your power to relax or your ability to conceive. Ironically, he says, accepting that you could fail just might help you succeed.

"Think about the story which probably every woman knows, about the couples who adopt a child, then get pregnant," says Gordon. "That's an anecdote," he concedes, "but it's an anecdote I've seen over and over in the 30 years that I've been a physician. You sort of let it go and reach a state of acceptance, and it gets easier."

As scientists know well, theory is one thing. It's another to prove it or put it in practice. Which is why -- at least for adherents of addressing infertility through the mind -- research in this area is generating excitement.

Leading the research is movement guru Alice Domar. As part of the Mind/Body Medical Institute, created by Harvard Medical School to study the relaxation response and determine its clinical usefulness, the center boasts sterling credentials. Domar, co-author of "Six Steps to Increased Fertility" (Simon & Schuster 2000), holds "infertility retreat weekends," where women or couples come from across the country to learn stress management strategies.

Doctors, says Gordon, have long sensed a connection between stress and infertility, but "what we have now, particularly with Alice Domar's research, is a kind of objective demonstration."

Domar also runs popular 10-week group sessions (the ones Blitzer uses as her model) for women with fertility problems, focusing on meditation, muscle relaxation techniques, nutrition counseling and changing negative thinking patterns. "We can pretty much treat and cure depression in 10 weeks," says Domar. "If pregnancy happens, I consider it a nice side effect."

But, as she's pleased to point out, it certainly does happen: Two years ago she published in the journal *Fertility and Sterility* a key study of 184 women who had been trying to get pregnant for one to two years. Some in the study, which was funded by the National Institute of Mental Health, were assigned to Beth Israel's mind-body group or support groups, while others -- the controls -- underwent no treatment or medical fertility treatments only. Researchers followed the participants for a year. Only 20 percent of the control group conceived, but about 55 percent of those in the mind-body groups became pregnant. "We showed that support groups and mind-body groups actually increase fertility rates," says Domar.

How? "It remains to be determined," her report concludes, but "recent research supports the theory that psychological distress can have effects on multiple systems, including . . . activation of the hypothalamic-pituitary-adrenal axis." This constitutes the flight-or-fight response, where, as the body reacts to perceived danger, blood pressure rises, blood vessels constrict (hence the cold hands), the pulse rate increases and blood sugar is released. If these disruptions of the nervous system become chronic, Domar suggests, they could "adversely affect ovulation, fertilization, tubal function or implantation."

But not everyone's buying it. How, asks one critic, does the theory explain the fact that developing or war-torn countries like India, Afghanistan and Bhutan -- places where life can be pretty stressful -- have some of the highest birthrates in the world? This point is made by Masood Khatamee, executive director of the Fertility Research Foundation and a clinical professor at New York University's School of Medicine, who views stress's role in infertility as probably minor. "If somebody's infertile, you have to look hard into all the issues, into every other possibility," he insists. "Then, after that, you may find some kind of psychogenic connection."

Actually, that's what women generally do -- exhaust most other approaches before trying relaxation therapy. Erin Dean, who heads the Washington-area chapter of Resolve (also known as the National Infertility Association), says that while she has noticed more interest recently in

mind-body treatments, "it tends to come from the patients where traditional medicine has not worked."

But Domar's studies have been receiving a thickening file of scientific support.

In the October 2001 issue of *Fertility and Sterility*, researchers at the University of California, San Diego's Department of Family and Preventive Medicine released findings from a study that followed 151 women undergoing IVF treatments. The participants' "baseline" stress levels (separated in the study from stress directly related to the IVF procedure) affected their chances of conception. "If women were really optimistic [as opposed to stressed and anxious] about the likelihood of their becoming pregnant," lead researcher Hillary Klonoff-Cohen explains, "then they had an increase in the number of eggs fertilized and an increase in the number of embryos transferred." What's more, she says, "If women were anxious, they increased their odds of not delivering a healthy baby by 25 percent." More research is necessary, Klonoff-Cohen adds, but "stress somehow is mediating a change of chemicals or hormones."

Sarah Berga, director of the Division of Reproductive Endocrinology and Infertility at the University of Pittsburgh School of Medicine, is working to explain that "somehow" through a study funded by the National Institutes of Health. She has found that women who have high levels of cortisol -- a stress-indicating hormone -- stop releasing eggs. What can remedy this? Reducing anxiety or taking fertility drugs, Berga says, and the former is clearly preferable.

"When you're stressed out, we can cause you to ovulate with injectable drugs and you can get pregnant," she concedes. "But you're still stressed. That probably isn't good for the fetal brain."

By the time they get to Blitzer, program participants tend to be more than a little defensive.

"It's such a primitive, primitive issue," says a 44-year-old graduate student from Rockville, who, like so many women with fertility problems, insists that she not be identified. She says she's been trying to conceive for seven years, a period marked by a string of medical procedures, panic attacks and rifts in her marriage. Working with Blitzer in group settings and individually, she says, kept her from giving up entirely, or worse.

"I would come into her office in a twisted torment and by the time I left, I'd be fine."

No, she's not pregnant, she adds, but she's also not immobilized by depression and anxiety. Next month she'll try a donor egg, an option that she thinks she might not have been psychologically capable of considering without Blitzer's form of support.

Like Domar's, Blitzer's sessions last for 10 weeks, but a few groups have chosen to keep meeting -- they may have incorporated the relaxation work into their daily lives, but find the support and understanding among fellow sufferers invaluable. Especially when, as another participant puts it, "most of my friends are popping out babies like they're taking a sneeze."

Infertility begets stress, which begets infertility, it seems.

Lagervall, whose son is now 15 months old, says she fell into a depression after her fourth unsuccessful IVF treatment. "I felt terribly upset that my body was failing me."

Emotions are rubbed raw by the time some women ask for psychological support; they offer stories of the heartbreaking things well-meaning friends and families say ("so when are you going to have kids?"), their sense of isolation, inadequacy, frustration.

Some of the rawness is on display at Blitzer's Thursday night meeting. When one woman arrives and learns that a group member has just become pregnant, she storms out, angry and tearful. Blitzer hasn't yet developed procedure to anticipate such reactions. "It's a very thorny issue that I'm still working on," she says, adding that she's thinking of establishing a "ritual leave-taking," where the pregnant woman can say goodbye "without just disappearing into the night."

Even if they've managed to learn biofeedback, meditation, cognitive restructuring or other ways to relax, some women simply can't conceive. What does Blitzer say to women who master her techniques, then wonder what went wrong?

It's unfortunate and simplistic for a woman to blame herself for infertility, Blitzer says. There's no guarantee that stress reduction will result in fertility; it merely helps remove one more barrier. "I tell them that the world is full of all sorts of people with stress who have children and there's a lot that's unknown about infertility at this point," she explains. "But I do know that stress isn't good for the body."

If nothing else, she and other stress-reduction advocates counsel women to view this work as a tool for a better life; a measure of inner peace is a worthy end in itself. Decreasing depression and stress is undeniably beneficial for anyone -- not just women trying to have babies.

"Life is complicated," Blitzer adds. "We're just trying to hit all the bases here, and one of the bases we're hitting is going to make you feel better."

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