

The Effects of Stress On Fertility

By Christine Norris

Long-term stress has been linked to a wide range of health problems, including cardiovascular disease and certain cancers. Recently, scientists and infertility specialists have been studying the connection between chronic stress and infertility. They have found that without the necessary help to cope with stress, couples may have difficulty not only conceiving, but also delivering a healthy full-term baby.

The uncertainty of infertility creates stress in and of itself in addition to the stress that already exists in day-to-day activities. From work anxiety to marital discord, stress is a way of life. Learning to control its effects through various coping strategies is crucial for achieving long-term health.

Stress and stress hormones, such as cortisol, are known to adversely affect every system in the body, such as the immune system. According to several recent studies published in peer-reviewed medical journals, the body then reacts by creating certain defense mechanisms.

Recent studies, for instance, have linked increased levels of stress to lower levels of Assisted Reproductive Technologies (ART) success. For example, a study conducted by researchers at the University of California San Diego and published in the October 2003 issue of the journal *Fertility and Sterility* found that women suffering from the highest levels of overall life stress had 45 percent fewer eggs fertilized and one to two fewer embryos transferred than those with the lowest levels of stress. The researchers believe that these women, who worry excessively about their treatment, are likely to produce fewer eggs and therefore have less chance of conceiving than women who don't fret about their treatment.

This prospective study tracked responses from 151 women who completed questionnaires at their initial clinic visit and at the time of their ART procedures. The questions focused on concerns specific to ART patients, including side effects, surgery, anesthesia, pain recovery, and missing work. These findings support previous research linking increased levels of stress to decreased levels of ART success.

Stress and Male Infertility

Stress also can affect a man's fertility. A study conducted by researchers in Rome, Italy, and published in the June 2003 issue of the journal *Fertility and Sterility* found that men with abnormally low sperm profiles are psychologically different than men with normal semen profiles. To determine this conclusion, the researchers gave a group of 280 men a series of psychological tests before their initial semen analysis to examine psychosocial differences without bias. One of the psychological factors tested was their ability to cope with stress. The researchers found a significant correlation between the men with low sperm counts and their low coping skills in dealing with stress. They were able to correctly predict the semen analysis results based on the psychological testing data.



Although more research needs to be conducted to identify and clarify these psychosocial connections to male infertility, the results of this study may indicate that emotional processes can affect hormones and sperm development.

A number of studies have already found that couples undergoing in vitro fertilization (IVF) and other assisted reproductive techniques improve their chances of conceiving if they receive stress management training and other psychological counseling. A Swedish study published in the February 2003 issue of the journal *Acta Obstetrica et Gynecologica Scandinavica* also found that couples who conceived using IVF need more emotional support early in their pregnancies than couples who conceived naturally.

The researchers followed 57 women and 55 male partners who conceived after IVF and compared them to 43 women and 39 male partners who conceived

Recent studies have linked increased levels of stress to lower levels of assisted reproductive technologies (ART) success.

naturally. The IVF women experienced more muscular tension and more anxiety about miscarriage than the women in the control group. The IVF women who were the most upset about being infertile seemed to be the most anxious about losing their pregnancies. The IVF men experienced more muscular tension, indirect aggression, guilt, and detachment than the men in couples who conceived naturally. They also were more anxious about the pregnancy loss than the male control group. The IVF men who were the most upset about being infertile had the most anxiety about their babies not being normal.

The Value of Support Groups

Couples undergoing fertility treatment who share their feelings with each other in a support group setting experience less anxiety and more optimism than couples that don't participate in these groups, according to a study published in the 2002 issue of *Mayo Clinic Proceedings*. The researchers found that the women who participated in the groups were significantly less anxious and depressed, and the men who joined were more optimistic. The study focused on couples who were undergoing actual infertility treatments at the same time as participating in support groups.

The study authors believe that sharing common hopes and feelings with others going through the same infertility problems can greatly relieve the uncertainty of conception. The researchers hope to draw on the study's successful results to find the most efficient and effective ways to deliver support group therapy to more infertile couples.

Psychological Screening During Pregnancy

The American College of Obstetricians and Gynecologists (ACOG) now recommends that pregnant women undergo psychological screening once each trimester to reveal any underlying issues to prevent a poor birth outcome. At DVIF&G, we have long recognized the pivotal effect of psychological health to reproduction in general and pregnancy in particular. We have developed the instruments and expertise to diagnose, prevent, and if need be, successfully treat any emotional or psychological conditions to the benefit of the mother-to-be, the pregnancy, and especially to the fetus.

DVIF&G doctors also have conducted several studies showing how lifestyle adjustments, such as eating healthy, achieving a healthy weight, exercising regularly, and reducing stress through therapy, meditation, and other activities, can successfully treat infertility and deliver healthy babies. Stress and its effects on fertility can be controlled if detected early.



DVIF&G's Medical and Behavioral Therapy Program, directed by Karen Ann Brook, LCSW, MSW, BCD, helps patients cope with the stress and uncertainty of infertility. To make an appointment with Ms. Brook, please call (856) 988-0072.



New Wireless Access Available For Our Patients

Delaware Valley Institute of Fertility & Genetics (DVIF&G) patients can now use their laptops to access the Internet and e-mail through our wireless network. This new service is available for all patients in the waiting rooms or throughout our center.

DVIF&G Now Offers Electronic Medical Records

The Delaware Valley Institute of Fertility & Genetics (DVIF&G) now offers all of its patients an Electronic Medical Record (EMR) or chart. This state-of-the-art technology enables the physicians and other staff members to access patient charts from all three of DVIF&G's locations, as well as away from the offices in case of emergency. EMR has revolutionized DVIF&G as the practice continues moving forward with new technology. Efficiency, availability of data, accuracy, image, lab, and procedure results are instantly accessible. EMR also provides result-based outcome reporting for our patients and healthcare providers.

"I make the most of all that comes, and the least of all that goes."

--Sara Teasdale

Happy Birthday to . . .

continued from page 4

Vivianna Grace Idland, born on January 11, 2007, to Christine and Timothy Idland.

Kaelynn Diane Jones and Kadon Terray Jones, born on January 14, 2007, to Lena and Harold Jones.

Kayleigh Page Veach and Cody Hunter Veach, born on January 17, 2007, to Tracy Nimitzek and Linwood Veach.

Sienna Marie Eden and Sean Rogers Eden, born on January 23, 2007, to Christine and James Eden.

Evan Costanzo, born on January 24, 2007, to Alanna and Erik Costanzo.

Emily Erin Curry, born on January 25, 2007, to Lynn and Thomas Curry.

Veronica Ann Ashcraft, born on January 29, 2007, to Lori Borden and Brian Ashcraft.

Autumn Rose Praul, born on January 29, 2007, to Christie and Joshua Praul.

Jolee Elizabeth Simon, born on January 30, 2007, to Amy and Jeff Simon.

Dean Rocco Campanaro, and Gabriella Campanaro, born on February 2, 2007, to Donna and Chris Campanaro.

Olivia Fay Gross, born on February 6, 2007, Samantha and Jeff Deletto Gross.

Kaitlynn Schoener and Kylie Schoener, born on February 8, 2007, to Annmarie and Jeff Schoener.

Hannah Paige Tozer, born on February 26, 2007, to Nicole and Alfred Tozer.

Gianna Kennison, born on March 9, 2007, to Tracie and James Kennison.

Kaylie Marie Peacock, born on March 9, 2007, to Michelle and Michael Peacock.

Anthony James Nanni, born on March 10, 2007, to Jennifer and Anthony Nanni.

Jonathan Andrew Nawrocki, born on March 10, 2007, to Joanne and Bill Nawrocki.

Catherine Rose Brooks, born on March 21, 2007, to LouAnn and Anthony Brooks.

Shane Reese Watson and Sean Frederick Watson, born on March 24, 2007, to April and Fred Watson.

Tyler Jensen Spiegler, born on March 26, 2007, to Julie Mahdy and Philip Spiegler.

Declan Owen Toone and Braeden Ulan Toone, born on March 28, 2007, to Julianne and Scott Toone.

Jacob Paul Decker, born on March 30, 2007, to Amy and Greg Decker.

Kooper Scarbrough and Kollins Scarbrough, born on April 12, 2007, to Trista and Shawn Scarbrough.

Katilynn Colleen Kirk, born on April 19, 2007, to Vera Ann and William Kirk.

Chase Scott Krawiec and Karisa Lynn Krawiec, born on April 20, 2007, to Melissa and Jeffrey Krawiec.

Andrea Jeanine Smith, born April 27, 2007, to Deitra and Andre Smith.

Olivia Faith TeYssier, born on April 28, 2007, to Carrie and Matthew TeYssier.

Colin McGlenn, born on April 30, 2007, Kristy and Michael McGlenn.

Mia McShane, born on May 1, 2007, to Claudia and Jeff McShane.

Caiden Alexander Spinelli, born on May 1, 2007, to Allison and Brian Spinelli.

Justin Andrew Madden, born on May 3, 2007, to Kim and Brian Madden.

Shayna Lee Marks, born on May 13, 2007, to Jennifer and Stephen Marks.

Sydney Jane Jurkiewicz, born on May 14, 2007, to Jennie and Jim Jurkiewicz.

Melodie Golding, born on May 15, 2007, to Andrea and Robert Golding.

All of the babies and parents are doing well. Thank you, DVIF&G!

DVIF&G

Delaware Valley Institute
of Fertility & Genetics



6000 Sagemore Drive—Suite 6102
Marlton, NJ 08053



Conceptions

Conceptions is published quarterly for a select group of OB/GYNs and their patients. To receive extra copies of the newsletter or to be placed on our mailing list, please call Carla Scott at (856) 988-0072 or e-mail her at: info@startfertility.com.

EDITOR: Christine Norris

DESIGN: jldcreative/J.Levins Design

Delaware Valley Institute of Fertility & Genetics

6000 Sagemore Drive—Suite 6102
Marlton, NJ 08053
(856) 988-0072

2950 College Drive, Suite 2B
Vineland, NJ 08360
(856) 794-8080

3100 Princeton Pike
Bldg 4, Suite D
Lawrenceville, NJ 08648
(609) 895-0088

Visit our web site at:
www.startfertility.com

Happy Birthday to . . .



Benjamin Michael Cooper, born on May 9, 2006, to Lynne and Kevin Cooper.

Annabel Gallagher and Bridget Gallagher, born on October 4, 2006, to Nicole and Dennis Gallagher.

David Aaron Jones, born on October 31, 2006, to Heather and David Jones.

Daniel Angel Roman, born on November 4, 2006, to Kay Colon and Daniel Roman.

Maddeo Shiller and Gabriel Shiller, born on December 2, 2006, to Andrea and Andrew Shiller.

John Patrick Kinney, born on December 8, 2006, to Bethann and Patrick Kinney.

Joseph Egbeh Smith, born on December 13, 2006, to Mary Joshua Smith.

Brett Paul Lehmann, born on December 26, 2006, to Delia and Christian Lehmann.

Mason Dominiano and Matthew Dominiano, born on December 26, 2006, to Kim and Frank Dominiano.

Luke Hoffmaster and Gabriella Hoffmaster, born on December 28, 2006, to Paola and Michael Hoffmaster.

Jordan Jayla Goode, born on January 1, 2007, to Juliet and William Goode.

Jeremy Guan Hong Allen, born on January 8, 2007, to Ann Tiao and Robert Allen.



George S. Taliadouros, M.D., FACOG, medical director of DVIF&G, recently spoke about "Issues in Preconceptual Health" to members of the OB-GYN staff at South Jersey Health Systems in Vineland. For more on this topic, please click on www.dvifg.com, go to "patient information" and click on "publications." Under "newsletters," click on "Winter 2007 issue" and read the cover story, "The Origins of Health and Disease."