

# Reproductive

## MEDICINE MATTERS

Spring 2004

### ASK ABINGTON

Dear Abington Reproductive Medicine, I'm a 28-year-old childless female who has been diagnosed with cancer. Soon, I will begin chemotherapy treatments. I'm very worried about how these treatments will affect my fertility, and I've heard that there are certain steps you can take now to increase your odds of conceiving after cancer. Is this true?

Sincerely,  
Anxious in Allegheny

Dear Anxious,  
Fortunately, the survival rates of women who are diagnosed with cancer during reproductive age have improved dramatically. Yet female cancer survivors often pay a high price in regards to their future fertility since chemotherapeutic agents, which are designed to inhibit and destroy the growth of cancerous cells, also reduce the pool of eggs available for reproduction. (The drug type, duration and dosage determine the degree of ovarian damage.) A number of hormonal protection regimens have been used to combat this, albeit with limited success. The theory behind these regimens is that maintaining a woman's eggs during their developmental stage makes them less vulnerable to the toxic effects of chemotherapy. Thus, a woman may be given oral contraceptive pills, GnRH-agonists (e.g. Lupron) or progesterone before her first round of chemotherapy.

A more promising option for women diagnosed with cancer who wish to

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### ABINGTON UNVEILS REDESIGNED WEB SITE



If you haven't visited our Web site, [www.abington-repromed.com](http://www.abington-repromed.com), lately, you're in for a pleasant surprise. Over the past two months, Abington Reproductive Medicine has been working closely with a Web site engineer and design team to establish a new look for the site—a look that reflects our compassionate philosophy of care and appeals to current and potential patients alike.

In addition, the site's content has been updated and reorganized to better accommodate your needs. For example, current patients can click on "IVF Medications" for detailed medication

administration instructions or visit the "Contact Us/Links" section to locate nearby hotels. Potential patients and referring physicians will enjoy the site's "Our Practice" section, which offers detailed biographical information about our physicians and staff and explains the procedures and services we offer. The site also is an excellent resource for family members and friends who want to better understand the scientific basis of infertility as well as the various options available.

After visiting our redesigned site, we welcome any feedback or questions you may have related to the site's content and design. You can e-mail us at [info@abington-repromed.com](mailto:info@abington-repromed.com). ♦

### PARTICIPANTS NEEDED FOR UPCOMING IVF VS. COCULTURE STUDY!

See article on back page for details.

### NEW CHROMOSOMES FOR DETECTION ADDED TO PGD PANEL

Abington Reproductive Medicine recently added chromosomes 15 and 17 to our list of Preimplantation Genetic Diagnosis (PGD) screening capabilities.

Since 2002, Abington Reproductive Medicine has offered PGD to in vitro fertilization (IVF) patients as a way to test their embryos for genetic disorders before transferring them into the uterus. While the procedure is particularly useful for patients with serious, inherited genetic disorders who wish to avoid passing the disorders onto their child, it also can be used to prevent abnormal pregnancies

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# THE TRUTH ABOUT MALE FACTOR INFERTILITY

Let's be honest. No male enjoys hearing that he's got a couple million less sperm than the next guy, or that those sperm are having a tough time making it upstream. And "male factor infertility" isn't exactly the easiest—or most natural—topic to broach when hanging out with the guys.

Yet awkward as it may be to talk about, male factor infertility is a reality for many couples trying to conceive. In fact, about 40 percent of all infertility cases can be attributed to a disorder discovered in the male (of the remaining 60 percent, 40 percent are the result of a disorder found in the female and 20 percent involve combinations of problems in both partners).

It's important to emphasize that male factor infertility is defined as a medical disorder, NOT a sexual dysfunction. In other words, a man's sperm count has nothing to do with his masculinity or sexual prowess. Instead, the focus should be on the cause of his infertility and appropriate treatment options.

Azoospermia (complete absence of sperm) and oligospermia (few sperm cells produced) are two of the most common causes of male factor infertility. Other causes include malformed sperm cells or sperm cells that die before they reach the egg. In some cases, male factor infertility can be attributed to a genetic disease or chromosomal abnormality.

Determining which of these causes (if any) is at work is a multistep process. At Abington Reproductive Medicine, we begin by taking a thorough medical history. This is typically followed by a semen analysis conducted on a specimen provided by the male partner. We then use a state-of-the-art machine called a Computer-Aided Semen Analyzer (CASA) to evaluate the specimen. The CASA can test a patient's sperm volume, count, motility (the percentage of sperm moving), morphology (the shape of the sperm) and

forward progression. The machine also can detect the presence of bacteria and calculate a patient's white blood cell count.

Once a diagnosis has been made, couples can begin exploring treatment options. While treatment depends on the nature and cause of the infertility, some of the more common options include intrauterine insemination, in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT), intracytoplasmic sperm injection (ICSI) and drug therapy.

*"It's important to emphasize that male factor infertility is defined as a medical disorder, NOT a sexual dysfunction."*

Regardless of the treatment option chosen or eventual outcome, it's important to understand that men and women often have different ways of coping with infertility. Just because a man doesn't outwardly express any sadness or frustration doesn't mean that he's not hurting or struggling on the inside. Individual counseling, support groups and online discussion groups can provide healthy outlets for men struggling with infertility-related emotions and issues.

For more information about male factor infertility or to make an appointment with Steven J. Hirshberg, M.D, please call our office at 215-887-2010. To read more about Dr. Hirshberg, please see the "Male Factor Infertility..." article on page four. ♦

## ABINGTON OFFERS ADVANCED TREATMENTS FOR CHILDREN AND ADOLESCENTS

Not all of our patients are of the childbearing mindset—yet. For children and adolescents, Abington Reproductive Medicine offers an array of advanced gynecology treatments and services for conditions associated with precocious puberty, sexual ambiguity and delayed adolescent development. A sampling of these conditions, many of which can lead to infertility if left untreated, is listed below:

### **PRECOCIOUS PUBERTY:**

- McCune-Albright syndrome
- Premature thelarche
- Premature pubarche, adrenarche or menarche
- Ovarian tumors

### **SEXUAL AMBIGUITY AND DELAYED**

#### **ADOLESCENT DEVELOPMENT:**

- Gonadal dysgenesis: Turner's syndrome
- Klinefelter syndrome
- Gonadal failure
- Post-chemotherapy (radiation to the pelvis)

### **ADOLESCENTS:**

- Hirsutism
- Polycystic ovarian syndrome
- Menstrual dysfunction
- Excessive, irregular vaginal bleeding
- Surgical and nonsurgical reconstruction of the vagina
- Transverse vaginal septum
- Imperforate hymen
- Endometriosis
- Ovarian cysts
- Minimally invasive laparoscopic surgery



For a complete listing of our adolescent and pediatric services, please visit [www.abington-repromed.com](http://www.abington-repromed.com). To make an appointment with one of our physicians, please call 215-887-2010. ♦

# Media Mentions

## DR. JAY SCHINFELD FEATURED IN *ePREGNANCY* MAGAZINE

Does changing sexual positions increase your likelihood of conceiving? This very question was explored in "Conception Positions: Fact or Fallacy?" an article by Jennifer Nelson that appeared in the November/December 2003 issue of *ePregnancy* magazine. In the article, Nelson sought opinions from several noted reproductive medicine specialists, including our very own Dr. Schinfeld. Nelson's findings? Unless you have a tipped uterus, it's better "to concentrate more on romance and sound medical advice than on positions and products." ♦



## Chromosome Detection, continued from page 1

and offer explanations for recurrent miscarriages or implantation failures.

PGD can be performed via one of two testing methods: Fluorescent In Situ Hybridization (FISH) or Polymerase Chain Reaction (PCR) DNA amplification. With FISH, we can screen for spontaneous mutations of certain chromosomes, which can indicate the presence of a genetic disorder, such as Down's syndrome. We currently can screen for the following chromosomes: X, Y, 13, 15 (new!), 16, 17 (new!), 18, 21 and 22. FISH testing is typically indicated for patients of advanced maternal age or those with a history of recurrent miscarriages, multiple unsuccessful IVF attempts or severe male factor infertility.

In cases of inherited, single-gene defects, PCR is the preferred testing method. PCR can be used to screen for beta thalassemia, bloom syndrome, cystic fibrosis, familial dysautonomia, Fanconi's anemia, fragile-X syndrome, Gaucher's

disease, hemophilia A and B, Huntington's disease, Marfan's syndrome, polycystic kidney disease, sickle cell anemia and Tay-Sachs disease, among others.

In addition to spontaneous chromosomal mutations and single-gene defects, we can screen for translocations, which occur when two pieces of nonmatching chromosomes are stuck together. Sperm or eggs from individuals with a translocation can cause the resulting embryo to have an unbalanced amount of genetic material, leading to embryo death, miscarriage, spontaneous abortion or the birth of an infant with substantial medical problems.

As Abington Reproductive Medicine continues to make tremendous strides in our PGD capabilities, we will keep you updated through our Web site and future issues of *Reproductive Medicine Matters*. For more information about PGD testing, please call our office at 215-887-2010. ♦

## Ask Abington, continued from page 1

preserve their fertility is cryopreservation, or the freezing of a woman's eggs, ovarian tissue or embryos. Of the three types of cryopreservation, perhaps the most efficient and successful method involves freezing a patient's embryos. To do this, the woman takes a series of egg-generating fertility medications before she begins chemotherapy. Once her eggs are removed and mixed with her partner's sperm, the resulting embryos are frozen and preserved for later use. When the woman completes her chemotherapy treatment, her embryos can be thawed and transferred into her uterus for implantation and pregnancy. Since embryos are more likely than eggs or ovarian tissue to survive the thawing process, this technique offers the best chance of achieving a successful pregnancy.

Best,  
Larry I. Barmat, M.D.

*Do you have a question for the Abington Reproductive Medicine physicians? E-mail us at [info@abington-repromed.com](mailto:info@abington-repromed.com) with your inquiry, and your question may appear in a future issue of *Reproductive Medicine Matters*.*

## ABINGTON APPEARANCES

Upcoming events and seminars featuring the physicians of Abington Reproductive Medicine:

### IVF Seminars

Mondays, June 7, September 27  
and November 29  
7 p.m.

The Toll Center for Reproductive Sciences  
Abington Memorial Hospital

Potential patients are invited to join us for free informational seminars on in vitro fertilization (IVF). The seminars will be led by an Abington Reproductive Medicine physician and will feature staff members from the Toll Center. For more information or to register (required) call 215-481-2349.

## Research and Development

### IVF vs. AUTOLOGOUS ENDOMETRIAL COCULTURE

Drs. Barmat, Schinfeld, and Somkuti are seeking participants for a yearlong study comparing the embryo development and pregnancy rates of women who complete a standard in vitro fertilization (IVF) cycle with endometrial biopsy and women who undergo a combination of IVF and Autologous Endometrial Coculture. Co-developed by Dr. Barmat while at Cornell University, Coculture involves placing a patient's fertilized eggs on top of a layer of cells from her own uterine lining, creating a more natural environment for embryo development.

Approximately 175 women, all of whom must have been diagnosed with infertility and require IVF to enhance their conception ability, are needed for the study. Participants will be randomly assigned their treatment protocol (IVF with standard endometrial biopsy or IVF with Coculture).

Since Coculture has been safely performed in over 1,000 women with no reported detrimental side effects, the study carries few, if any, risks for participants and has theoretical benefits. If you or someone you know is interested in participating in the study, please call our office at 215-887-2010. In the meantime, look for study updates on our newly redesigned Web site, [www.abington-repromed.com](http://www.abington-repromed.com), and in future issues of *Reproductive Medicine Matters*. ♦

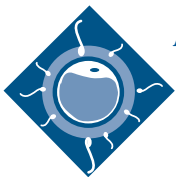
### MALE FACTOR INFERTILITY PATIENTS REFERRED TO TOP UROLOGIST

For patients who have been diagnosed with male factor infertility, Abington Reproductive Medicine is pleased to refer them to Steven J. Hirshberg, M.D., director of Male Infertility Services at the Toll Center for Reproductive Sciences and the only fellowship-trained reproductive urologist in the Delaware Valley.

Abington Reproductive Medicine's relationship with Dr. Hirshberg allows us to provide superior, comprehensive care to patients with male factor infertility.

Dr. Hirshberg completed his fellowship in reproductive urology at Baylor College of Medicine, where he worked alongside one of the world's foremost male reproductive urologists, Larry Lipschultz, M.D. He currently specializes in all areas of male infertility, especially microsurgical vasectomy reversals and sperm retrieval. He also is one of the few urologists in the country who will partner with reproductive endocrinologists to coordinate a patient's care and treatment.

"The media's perception is that any man with a sexual problem is weak or inferior," Dr. Hirshberg explains, "when in fact, male factor infertility is a very common problem and has nothing to do with overall health or masculinity. I try not to isolate the condition as solely the 'man's problem.' Instead, I offer suggestions to both partners...this kind of team approach often helps expedite the evaluation process and guide couples to the most effective treatments." ♦



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