

# Making Way for Babies at Arlington Hospital

For some couples, conceiving a baby turns out to be an unexpected challenge despite their best efforts. But when months, or even years, go by with no sign of pregnancy, the stress that something's wrong can take a toll on a relationship. The truth of the matter is that infertility is a common problem, and for certain women, the solution can be quite simple.

Some cases of infertility in women are caused by nothing more than a harmless build-up of stray cells that amass and block the fallopian tubes. It happens most often in women over 30 and those whose tubes have been scarred by inflammation, though doctors aren't certain why. What they do know is that the blockage prevents a woman's egg from traveling its natural course from the ovary to the

uterus. Because the condition causes no symptoms, a woman might never be aware that anything is amiss until she has difficulty getting pregnant.

Until a decade ago, the only help was a surgical procedure, in which an obstetrician entered the abdomen laparoscopically and cut into the tube to remove the obstruction. Today, some women's fallopian tubes can be cleared and their fertility restored without any incisions at all. Surprisingly enough, the medical specialist who helps these women conceive is an interventional radiologist.

"We're an unusual field," acknowledges Frederick J. Schwab, M.D., Section Chief of Interventional Radiology at Arlington Hospital, "because we can take part in treating such a wide range of medical conditions." The team consists of

four physicians, four nurses and three technologists. But these experts, who are probably best known for dramatic limb and life-saving procedures, like angioplasty in which they use x-ray-guided catheters and guide-wires to thread tiny balloons into the arteries of the body, can apply some of the same technology to fertility problems.

The procedure is called fallopian-tube-recanalization, and it takes place in a special fluoroscopy suite, equipped with x-ray equipment and monitors so that Dr. Schwab can observe live images of exactly what's going on in the reproductive tract. Most patients come to Dr. Schwab or one of his colleagues, referred by an obstetrician, after a diagnostic test known as a hysterosalpingogram, or HSG, shows that the



Photography by Keith Weller

**Dr. Frederick J. Schwab talks with a patient. Nearly 30 percent of women whose fallopian tubes have been opened by fallopian-tube-recanalization have conceived within a year following the procedure.**

# All in a Day's Work

They're lesser-known specialists, but interventional radiologists are vital to modern medicine. "A patient may never have heard of us," admits Frederick J. Schwab, M.D., "until we've saved his life." The reason these doctors are on the obscure side is that their craft—procedures performed by catheter under x-ray guidance—reaches into many diverse areas of healthcare.

"In a single day," explains the chief of Interventional Radiology at Arlington Hospital, "We can go from treating stroke by delivering a clot-dissolving drug into a patient's brain, to restoring blood-flow in a person who could lose their leg, to unblocking a woman's fallopian tube." An offshoot of diagnostic radiology, the discipline blossomed with recent leaps in technology that now make possible earlier diagnosis and a wide range of minimally invasive therapies.

Established in 1990 by Dr. Schwab and Russell E. McWey, M.D., the Interventional Radiology department at Arlington Hospital today boasts a team of four board-certified interventional radiologists, four registered nurses with training in crit-

ical care and radiology, and four specialized technologists. They treat more than 3,000 patients a year, offering therapies ranging from halting tumors in the liver, vertebroplasty to eliminate the pain of compression fractures and palliative procedures like nerve blocks for abdominal cancers.

A new technique they now offer is transcatheter embolotherapy, a simple treatment for benign fibroid tumors—the non-lethal masses that can grow inside the uterus causing pain, bleeding, and an unpleasant feeling of fullness. Threading a small catheter into the arteries that supply the uterus, Dr. Schwab and his team inject tiny styrofoam-like particles that accrete and block the bloodflow. Deprived of nutrients, the fibroid tumors begin to wither which usually alleviates the symptoms. Most importantly, once the fibroids are under control, women may avoid the need for a hysterectomy to remove the uterus. Some can even go on to have children. Says Dr. Schwab, "There are few areas of medicine where we're not involved in some way."

infertility problem is, in fact, one or two blocked fallopian tubes. During the HSG, a contrast dye is injected into the uterus. X-ray pictures show the location of the blockage and the general health of the tissue of the tubes. Women who show fallopian tubes that are obstructed, yet not scarred from previous pelvic infections or surgeries like tubal ligation, tend to be good candidates for recanalization.

Dr. Schwab performs the procedure as he carefully watches the monitor. Using slender catheters threaded with tiny wires, he guides a path into the vagina, past the uterus, to the fallopian tube. On the monitor, he's able to see the tip of the wire as it approaches the blockage, a collection of cells, fibrinous tissue and cellular debris. (Fallopian tubes are about the size of the smallest arteries about a millimeter in diameter—typical workspace for an interventional radiologist.) The blockage is soft, and Dr. Schwab is able to push it aside easily with the wire tip. He then flushes saline through the catheter to clear the remaining debris from the fallopian tube.

The entire procedure takes a mere 10 to 20 minutes, and patients require no anesthetic and only light sedation. There's no recuperation time necessary either; women walk out of the office and go back to work. To be on the safe side, Dr. Schwab prescribes a single dose of oral antibiotics to protect the body from the debris that gets flushed away, but the

occurrence of infection, he says, is rare.

The marvel of this easy procedure is its success. Nearly 30 percent of women whose fallopian tubes have been opened by recanalization have conceived within a year following the procedure. (Expensive and invasive in vitro fertilization procedures have similar or somewhat lower success rates.) The women who continue to have difficulty getting pregnant after recanalization often are those who have scar tissue nar-

rowing the tube at the site of the blockage, so even though the debris has been cleared away, the tube itself continues to present a problem. These women may later opt

to have surgery to correct the problem. "If the scarring is minor," Dr. Schwab says, "recanalization may actually be able to reopen the tube. But if there's no scarring at all, the procedure can return women to the level of fertility they experienced before the blockage occurred. It's a good first step."

Dr. Schwab, along with his partner Dr. Russell E. McWey, brought the procedure to this area almost ten years ago after studying at the University of Oregon under interventional radiologist Amy Thurmond, M.D., who was one of the pioneers of fallopi-

**"It's an elegant procedure, without any risk to the mother."**

an-tube-recanalization. Over the years, some patients have expressed concern about being exposed to radiation, but he reassures them: "The amount delivered near the ovaries is small and has never been shown to cause harm or birth defects." In addition, Dr. Schwab doesn't begin the test until a careful history and exam and sometimes even a pregnancy test show that the woman isn't pregnant already. "It's an elegant procedure, without any risk to the mother," he states. "And many healthy infants have been born following it."

However, the procedure should be performed by someone well-versed in the use of radiologic equipment, he says. The Arlington team, whose specialized skills using x-ray guided microcatheters and dexterity manipulating the tiniest guidewires, makes the fertility procedure a natural extension of their expertise.

**For more information on fallopian-tube-recanalization or a physician referral, please call (703) 558-6533. ■**



Arlington Hospital  
Dr. Frederick J. Schwab,  
Dr. Russell E. McWey,  
Dr. Murat H. Sor and  
Dr. Kathryn M. Palmer  
1701 N. George Mason Dr.  
Arlington, VA 22205  
(703) 558-6533