Robotic Surgery at FMH:
Beyond the Limits of the Human Hand
A MESSAGE FROM THE PRESIDENT

Superb Quality. Superb Service. All the Time.

It’s our promise to you, and we do our best every day to deliver on it.

And to give you the highest level of confidence in the care we are providing at FMH, we have committed to ongoing, stringent evaluation and review by the leading accreditor of healthcare organizations in the U.S.—the Joint Commission.

It’s my honor to let you know that The Joint Commission recently recognized FMH as one of the Top Performers nationwide based on a set of key quality measures—a distinction of which we are very proud.

One of the areas in which we were recognized for high achievement was surgical services—the department you will read about in this issue of Well Aware. From robotic surgery to the new anterior hip replacement technique, FMH is leading the way in safe, effective care that is on the leading edge of medicine.

Yours in Good Health,

Tom Kleinhanzl
President & CEO

To learn more, visit www.fmh.org.

About the Cover:

Pictured from L-R with the da Vinci Robotic Surgery system console in FMH Operating Room 10 are Dr. Paul Chomiak, Dr. Kambiz Tajkarimi and Dr. Yeung Lee.

The robotic surgery system available at FMH enables surgeons to perform delicate and complex operations through a few tiny incisions with increased vision, precision, dexterity and control. Using state-of-the-art robotic technology, the da Vinci system scales, filters and translates the surgeon’s hand movements into precise movements of miniature instruments working inside the patient’s body.

Left: In Figure 1, a surgeon has used the robot to fold a tiny sheet of paper into an origami crane many times smaller than a penny. Figure 2 shows how a similar robotic arm, again directed by the surgeon, can peel the skin from a grape.
ROBOTIC SURGERY: A MARVEL OF MEDICAL ENGINEERING

Until very recently, surgery was performed either through large open incisions, or laparoscopically. Laparoscopy uses small incisions, but this approach is typically limited to less complex procedures. However—thanks to a breakthrough surgical technology—there is a new category of minimally invasive surgery that is revolutionizing the traditional experience of surgery.

To the casual observer, Operating Room #10 at Frederick Memorial Hospital looks as ordinary as any other.

Beyond its doors, however, is a marvel of medical engineering that is changing the way surgery is performed: the da Vinci Robotic Surgery system, purchased by FMH in 2011.

Imagine the scene inside: an anesthetized patient lies on the table, surrounded by nurses, an anesthesiologist and a surgical assistant. Positioned above him are four robotic arms. Three arms hold various surgical instruments, and the fourth holds the system’s 3-D cameras.

Seated several feet away at a console is the surgeon. On a large, high resolution monitor, the image of the surgical site is magnified 10 times, with side-by-side lenses creating a 3-D view. The surgeon’s hand movements inside the console are precisely mimicked inside the patient by way of miniaturized instruments wirelessly connected to the robotic arms. Any unintentional motion is filtered out by the extremely sensitive system, allowing for maximum precision and control.

The surgeon’s foot controls the camera arm, and touchpads are used to adjust video, audio and other system settings. The ergonomic console and the alignment of the controls and monitor keep the surgeon in a relaxed, focused position at all times. Additional video screens provide the surgical team with a two-dimensional view of what the surgeon is looking at through the 3-D monitor.

“The robot’s ‘hands,’ when manipulated by an experienced surgeon, have the ability to operate in very tight spaces in the body which—in the past—were only accessible through the long incisions associated with open surgery. This typically translates into shorter hospital stays for our patients, reduced pain and discomfort, a reduced risk of infection, less blood loss and minimal scarring—and all that adds up to a faster return to normal activities.”

-DR. RACHEL MANDEL, ASSISTANT VP OF MEDICAL AFFAIRS, CHAIR OF THE ROBOTIC STEERING COMMITTEE
It’s 7:00 on a Tuesday morning, and Dr. Kambiz Tajkarimi of Monocacy Health Partners Frederick Urology Specialists is preparing for his first operation of the day—the removal of a cancerous prostate gland from a 67-year-old man.

A typical support team comprised of an anesthesiologist, a surgical nurse and a surgical technician will be assisting Dr. Tajkarimi with the procedure today—but there’s nothing traditional about the type of surgery that’s about to begin.

Dr. Tajkarimi will be using the da Vinci Robotic Surgery system for this procedure, a revolutionary technique using a magnified 3-D vision system and special wristed instruments that allow him to operate with some significant advantages over traditional surgery. For example, whereas open surgery requires an 8-10 inch abdominal incision, the robotic system’s miniaturized components will allow Dr. Tajkarimi to operate through several very small incisions.

The immediate goal of the procedure is to reach and remove the cancerous prostate. About the size of a walnut, the prostate gland surrounds the urethra, and is located directly under the bladder. Due to its proximity to the nerves and muscles that control urinary continence and sexual function, the operation is always a delicate procedure.

Dr. Tajkarimi is seated at a console several feet away from the patient. Inside the console, a 3-dimensional image of the patient’s lower abdominal cavity is magnified approximately 10 times —giving him an excellent view of the prostate. Using those specially designed, wrist-mounted instruments, Dr. Tajkarimi’s hand movements at the console are mimicked precisely inside the patient. One of the robotic arms uses tiny forceps to gently clasp and snip away pieces of the fibrous tissue surrounding the prostate. Once the gland is exposed, it is carefully and thoroughly removed, and the urethra reattached to the bladder. In addition to handling prostate problems, Dr. Tajkarimi evaluates and manages other urologic conditions that include the bladder, the kidneys, the adrenal glands and pelvic prolapse.

“I had very little discomfort following my robotic surgery, took no pain medication and my recovery was quick and easy. I was really happy to be able to get back to my normal routine of playing basketball every week in less than two months.”

Rudy Hawbaker of Waynesboro, PA (pictured above) chose to have his surgery at FMH with Dr. Tajkarimi because of the surgeon’s experience in laparascopic and robotic surgery. With nearly 600 procedures completed, Dr. Tajkarimi is considered to be one of the most experienced urologic surgeons in the Mid-Atlantic region.
ROBOTIC LUNG SURGERY: A REAL GAME CHANGER

Traditional open surgery performed on organs and tissues in the chest cavity requires a very long incision—large enough for the surgeon to fit his or her hands and instruments inside the chest. Recovery from such a procedure is long and painful, often requiring large doses of narcotic pain medications for many weeks.

However, thanks to the skilled hands of thoracic surgeon Dr. Paul Chomiak and the da Vinci Robotic Surgery system at FMH, Traci Neff had a completely different experience.

Last September, severe abdominal pain sent Traci to a local Emergency Room. A CT scan done at the time ruled out certain gastroenterological conditions, but the image revealed something unexpected and even more ominous: Traci had several masses on her lungs that looked suspicious. When additional testing couldn’t rule out cancer, Traci sought the opinion of Dr. Chomiak at the Monocacy Health Partners Center for Chest Disease. One of the treatment options Dr. Chomiak offered Traci was a minimally invasive procedure called a robotic thoracic exploration. He explained how the robot would allow him to operate using special, miniaturized instruments to remove the lung masses for further testing.

Eager to know whether the lung masses were cancerous so she could begin treatment as soon as possible, the young wife and mother of two didn’t hesitate. She had her procedure at FMH on her 40th birthday, and went home the next day. Instead of narcotic pain relievers, she used Tylenol as needed for pain. And best of all, Dr. Chomiak called her shortly before Christmas to tell her that the lung masses were benign.

“With robotic thoracic surgery, 60 percent of my patients are no longer taking narcotic pain pills one week after surgery. Using robotics to assist during thoracic surgery has resulted in a dramatic reduction in pain, and a much faster return to normal activities. It’s a real game changer.”

-DR. PAUL CHOMIAK
I ONLY LEAK WHEN I LAUGH

It’s a health concern for more than a quarter of American women, yet an estimated half of them won’t discuss it with their doctors.

The issue is urinary incontinence, or the involuntary leakage of urine. The condition may involve the loss of a few drops while coughing or exercising, or a strong, sudden urge to “go” just before losing a large amount of urine—sometimes both.

A side effect of aging, childbirth or other medical conditions, the leakage of urine and other pelvic floor disorders may be very common—but, says Women’s Health Navigator Trish Reggio, that doesn’t mean they need to be tolerated.

“Pelvic health problems, including urinary incontinence, can have complex causes,” says Reggio. “That’s why FMH has created an entire team of specialists who work collaboratively to provide the proper diagnostic tests and range of treatment options to every woman who comes to us, regardless of her diagnosis.”

For more information on the FMH Pelvic Health program, talk to your physician or call the Women’s Health Navigator at 240-215-1447.

“I Had to Do Something…”

Eighty-two-year-old Elaine* has stayed young at heart by keeping very active. So when she began experiencing urinary incontinence while doing simple, everyday things—like light housework and walking her dog—she was afraid her days of being even moderately active were over.

“I just knew I had to do something,” she says. “I made an appointment with my gynecologist. She referred me to Trish at the FMH Pelvic Health Program at Crestwood, and we talked about what my options were.”

As it turned out, Elaine had pelvic prolapse. Her muscles and ligaments had weakened and slipped out of place, causing pressure on her bladder and the involuntary leakage of urine. Elaine opted for robotic surgery which was able to correct the prolapse, and allow her to resume her normal activities comfortably and without embarrassment.

“The hospital stay was very brief, and I can honestly say I experienced no pain at all during my recovery,” she says. “That was a few months ago, and today I am symptom-free. My life is back to normal.”

* Name changed at patient’s request to protect privacy.
ON THE ROAD AGAIN

Debbie Molesworth and her doctors knew she had a fibroid tumor in her uterus, but her symptoms prior to last spring had been easily managed and only mildly bothersome.

In April of last year, however, on the eve of a long-awaited and carefully planned family get-together, that changed radically. With no warning, she began hemorrhaging, accompanied by severe cramping and pain. An emergency visit to her gynecologist confirmed what Debbie and her husband suspected: she would need a hysterectomy as soon as possible.

A mother of three and veteran of as many Cesarean sections, Debbie was familiar with the recovery from abdominal surgery. That her hysterectomy could be performed laparoscopically was her first bit of good news.

But Debbie got even more good news when her gynecologist, Dr. Yeung Lee, told her that she was a candidate for robotic surgery.

Using the robot, Dr. Lee needed to make only three tiny incisions to complete the operation—leaving scars Debbie says have all but disappeared. She stayed overnight at FMH, and was released the following day. Her pain level was manageable with over-the-counter drugs, and she was able to resume her busy schedule far more quickly than she had anticipated.

With a daughter now in college and two busy high schoolers, getting behind the wheel again was a priority for Debbie. Fortunately, it wasn’t long before she was released to start driving again—taking the kids to sporting events, dance classes and music lessons.

"Of course I was prepared to do whatever was needed to get back on my feet again," she says. "But I feel very fortunate that Dr. Lee was able do the procedure in a way that was likely to get me feeling like myself again much more quickly."

Dr. Edwin Chen, Dr. Jie Gao and Dr. Brian Heyman also perform these gynecologic procedures assisted by the robotic surgery system. In addition, Dr. Fouad Abbas, Dr. Daniel Kim and Dr. Mark Miller from Sinai Hospital collaborate with local practitioners on complex gynecologic, urogenecologic and cancer cases, allowing even more patients to have robotic surgery close to home and family, right here at Frederick Memorial Hospital.
To better serve the citizens of Frederick County and surrounding areas, Frederick Memorial Hospital recently announced plans to build a fully-integrated, comprehensive Cancer Institute on its Seventh Street campus. With the help of the hospital’s Development Council and the support of the entire community, the goal is to create a “one-stop-shop” for award-winning, comprehensive cancer care.

CHAIRMAN’S MESSAGE

Dr. P. Gregory Rausch, FACP
Chair, FMH Development Council

Residents of Frederick County and the surrounding area have been well served by Frederick Memorial Hospital’s oncology program since its founding in 1979. However, fast-moving changes in the County’s demographics, have made one thing crystal clear:

FMH must plan for big changes in cancer care. And the time is now.

It is well documented that the single greatest risk factor for developing cancer is aging. And in Frederick County, the number of residents who are 65 or older is the fastest growing demographic group—a trend that is expected to continue. Also, cancer is being identified earlier than ever before—another factor that is helping to get more people into treatment sooner.

It is time to build a comprehensive Cancer Institute that is twice the size of our existing facility, where everything our patients need is located under one roof.

With a projected cost of $20 million, the future of this project depends upon our success in securing charitable support from the community.

To learn more about how you can help make the FMH Cancer Institute a reality, visit www.fmh.org/donate or call 240-566-3478.

Cancer on the Rise

According to the Maryland Vital Statistics Annual Report (2009), cancer is the leading cause of death in Frederick County. As the population ages, and methods for early detection and diagnosis improve, the incidence of the following types of cancers is expected to significantly increase:

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>5 Year</th>
<th>10 Year</th>
</tr>
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<tbody>
<tr>
<td>Brain</td>
<td>12%</td>
<td>25%</td>
</tr>
<tr>
<td>Breast</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Blood-related</td>
<td>15%</td>
<td>32%</td>
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<tr>
<td>GI</td>
<td>17%</td>
<td>33%</td>
</tr>
<tr>
<td>Head &amp; Neck</td>
<td>17%</td>
<td>36%</td>
</tr>
<tr>
<td>Lung</td>
<td>20%</td>
<td>43%</td>
</tr>
<tr>
<td>Urologic</td>
<td>21%</td>
<td>43%</td>
</tr>
</tbody>
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“The foundation of the FMH Cancer Institute will continue to be a multidisciplinary approach to the diagnosis, treatment and follow-up of the cancer patient. With medical oncology, radiation oncology, surgical specialists, and all support services under one roof, care can truly be centered around the patient and their disease. This process is designed to bring the various care providers to the patient, not the other way around.”

-TOM KLEINHANZL
PRESIDENT & CEO
The FMH Cancer Institute will be twice the size of the existing facility. Plans for it include:

- An interior connection to the hospital and parking garage.
- A large, on-site pharmacy and laboratory.
- Expanded areas for imaging, radiation therapy, CyberKnife procedures, radiation oncology, a thoracic surgery center and more tumor-specific multi-disciplinary clinics.
- Expanded infusion center with facilities for providing chemotherapy to all patients, including children.
- On-site pain and symptom management services, genetic counseling, psychosocial support, an award-winning research program and a wide range of complementary and alternative therapies.
- Larger work areas to accommodate more patient navigators, multidisciplinary clinics, clinical trial consultations and community outreach activities.
- A soothing environment throughout, including comfortable waiting areas, valet parking, a meditation garden and a volunteer-staffed hospitality station.

“I’m a three-time cancer survivor, and I received all my treatment at FMH. Being able to stay close to home made a rough situation a lot more bearable.”

-JACK HILDEBRAND, CANCER SURVIVOR
Hip replacement surgery is a life-changing procedure for most people.

And with more than 300,000 of these procedures performed annually in the United States, this once-revolutionary surgery is now being done far more routinely, and with excellent outcomes.

In most cases, hip replacement surgery is performed through an incision made near the buttocks. While this approach is highly effective, the procedure involves large muscle groups and related nerves—a combination that can lead to more limitations during the patient’s recovery.

Recent improvements in surgical technique and instrumentation have made a second type of procedure a viable option for certain patients. Called an anterior hip replacement, the procedure relies on the use of a special operating table called the HanaSSXT™ -- recently acquired by FMH--to position the patient optimally.

According to Dr. Shawn Grandia, a surgeon with Orthopaedic Specialists of Frederick, the anterior approach utilizes a much smaller incision made in the front of the leg. While less invasive, this procedure still allows surgeons an excellent view of the hip socket, and allows them to reach the joint by simply separating the muscles rather than cutting and then reattaching them.

Dr. Grandia adds that the anterior approach also makes it easier for surgeons to use fluoroscopy, a real-time X-ray technique, to position the implanted artificial hip with greater precision.

“Because this technique spares more muscle tissue, early indications are that it results in a swifter recovery and shorter hospital stays for patients,” says Dr. Grandia. “In addition, there is practically no risk for post-surgical dislocation. This means fewer restrictions on patients’ movements during the recovery period.”

The award-winning Joint Works program at FMH includes 26 private rooms, a rehabilitation gym, community room and a specialized staff who are well versed in post-surgical recovery and rehabilitation. Typically, patients have surgery on a Monday or a Tuesday, followed by four hours of physical therapy over the next 48-hour period. Most patients return home on Wednesday or Thursday.

Dr. Shawn Grandia of Orthopaedic Specialists of Frederick recently completed her 100th anterior hip replacement surgery at FMH.

Read about Boonsboro resident Carol Wilks’s experience with anterior hip replacement on page 12. (Back cover)
**THIS IS WHO WE ARE**

*This is Who We Are* is an ongoing feature in each issue of *Well Aware*. It is our pleasure to introduce you to a member of the FMH family who is working hard to make a difference in our local or global community.

Meet Maria-Teresa Shuck

In 2006, a group of local people decided it was time to create an educational and resource center for the area’s Spanish-speaking community.

One of these visionaries was FMH Lead Spanish Interpreter Maria Shuck, and the result was Centro Hispano.

Today, in addition to her work for FMH, Maria is the Centro Hispano’s volunteer director. Located on the Golden Mile in the Vista Shopping Center, the organization has expanded its reach to embrace not only the Hispanic community, but also anyone with limited English proficiency. In addition to English and citizenship classes for adults, the Centro offers basic computer classes, tax services, legal consultations, translations and a referral program that connects patrons with local health and human services agencies.

“Our goal is to offer the tools and resources that residents with limited English proficiency need to break through the barriers of language and cultural differences to become full participants in the community in which they live, work and raise their children,” she says.

Maria also serves as a member of the FMH Diversity Advisory Committee, a vantage point from which she says she is well aware of the hospital’s sensitivity to the community’s residents with limited English proficiency. “FMH has always been open to understanding the needs of those served by Centro Hispano,” she says. “I feel fortunate to work for an employer who is so supportive of the needs of the non-English speaking community.”

In addition to the 32 hours per week she spends at FMH, Maria estimates that she invests nearly that much time working on behalf of Centro Hispano. “I go into the Centro itself 2-3 times per week, even though-- thanks to our dedicated volunteers-- it functions very well without me,” she says. “Most of the time I spend is behind the scenes, in contact with our families, volunteers and other resources, doing research, participating in meetings and attending events.”

“Between my work at FMH and the time I spend at Centro Hispano, the hours add up quickly. But I find it very energizing. This is my passion.”
I’VE GOTTEN MY LIFE BACK!

Seventy-one-year old Carol Wilks has always been an active woman, finding time to paint, garden, travel and work full time—all while raising a family. However, shortly after her 50th birthday, she began experiencing severe pain in both hips associated with her lifelong arthritis. Determined to stave off surgery and maintain her active lifestyle, she tried every non-surgical treatment possible for more than 20 years.

Finally, in 2010, Carol knew it was time for total hip replacement surgery, starting with her left hip. The surgery, although successful, sidelined Carol for several months.

By October, 2012, with the memory of her past surgery still fresh in her mind, Carol found out she also needed her right hip replaced. However, this time, her orthopedist suggested that she was a candidate for an anterior procedure, an emerging option in hip replacement surgery available at FMH. (See page 10)

In Carol’s case, the anterior approach reduced her recuperation time by about half. She was driving in two weeks, and walking independently in less than a month. “Getting back on your feet after surgery is always a challenge,” she says, “but the difference between the two procedures was significant.”

A little over a year later, Carol’s life is fuller than ever, and she is virtually pain-free. She works out in her home gym, teaches art classes several times a week and exhibits her paintings at shows throughout the Middletown Valley. An avid photographer, she was even able to hike nearly 2 miles over a glacier to get the photo of a lifetime on a recent trip to New Zealand.

“I don’t want to give up anything,” she says. “And I remind myself constantly that I don’t have to—as long as I take care of myself.”

After two hip replacements, Carol Wilks is back to taking care of 5,000 square feet of woodland gardens on her property, including a steep hill planted with evergreens and perennials.