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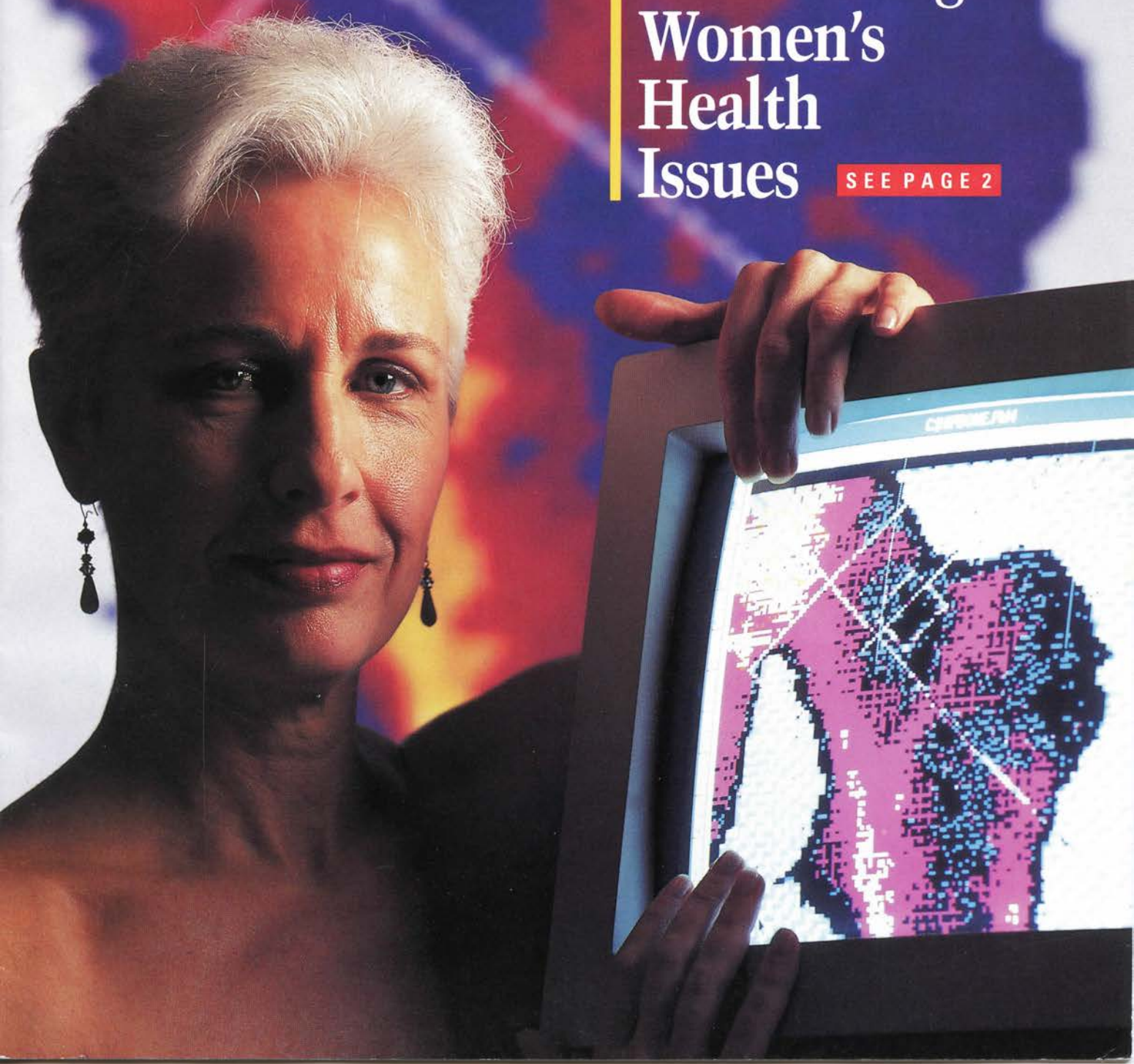


BOSTON UNIVERSITY  
MEDICAL CENTER  
*The University Hospital*

MAY 1993

## Confronting Women's Health Issues

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*On the cover:*

In every discipline, from gynecology to endocrinology, medical technology is helping physicians to conquer a broad spectrum of life-altering and life-threatening diseases. Using a computerized image of a woman's spine, wrist or hip (as shown), physicians at the Hospital's new Evans Bone Health, Diabetes and Clinical Endocrinology Group are able to diagnose, prevent and treat diseases of the bone, including osteoporosis, a condition that most often afflicts women.

Model is Judith A. Paige.  
Photography by Lou Jones  
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C O N T E N T S

**You Can Feel it in Your Bones**

Is osteoporosis inevitable? Physicians at the Hospital's new Evans Bone Health, Diabetes and Clinical Endocrinology Group are focusing their efforts on prevention and early detection of this debilitating condition in the hopes that women (and men) can maintain healthy bones.

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**Giving Women a Psychological Edge**

Hospital surgeons affiliated with BUMCH's Breast Health Center are giving mastectomy patients a psychological edge by offering them the option of post-mastectomy breast reconstruction.



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**A Wider Scope of Expertise**

Hospital gynecologists are finding new opportunities for the use of minimal-access surgery techniques in the detection and treatment of a wide range of common yet distressing gynecologic disorders.

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**Women and Aging**

If you're a woman then your chances of growing old alone and in failing health are fairly high. The Hospital's new chief of geriatric medicine, Patricia P. Barry, M.D., provides insight into a variety of topics affecting women and aging, including how women might age successfully.

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**Detecting Bulimia**

By asking two simple questions, physicians at the Hospital's Women's Health Group are better able to detect the hidden problem of bulimia.

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**Stem Cells to the Rescue**

Cancer and blood experts here are testing the efficacy of a new alternative to bone-marrow transplantation—with favorable results.

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**Following up on Progress**

Progress magazine follows up on the early promise of two clinical approaches.

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**News & Names**

Hospital opens the doors to a new primary care satellite...new trustee chairman, overseers named...Medical Center hosts Senate hearing on women's health issues...MRI technology upgraded...staff appointments.

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**About Boston University Medical Center/  
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The Hospital, founded in 1855, is a principal teaching hospital of Boston University School of Medicine. It provides a full spectrum of adult medical services and has many specialty care units, including neurology, psychiatry, metabolic, and surgical, medical and coronary intensive care. Among its special clinical programs are the Breast Health Center, the Women's Health Group, the Center for Minimal Access Surgery, the Stone Center, the Voice Center, the New England Regional Spinal Cord Injury Center, the Northeast Regional Center for Brain Injury, the New England Male Reproductive Center, the University Continence Center, and the Cancer Center at Boston University Medical Center Hospital. Boston University Medical Center Hospital, Boston University School of Medicine/School of Public Health and Boston University Goldman School of Graduate Dentistry constitute Boston University Medical Center.

# YOU CAN FEEL IT IN YOUR BONES

*Early detection and prevention of osteoporosis are key components of a new multidisciplinary program*

BY ERICA SAPERSTEIN



**A Progress special focus on women's health concerns**

**O**steoporosis, or the degeneration of bone, afflicts and debilitates some 20 million people each year, and is the number-one cause of hip fractures. However, thanks to insights into the physiology of the disease and advances in developing therapies to treat it, the disorder can usually be prevented if behavioral measures are begun early in life, or stalled or treated if diagnosed early.

Members of the Hospital's new Evans Bone Health, Diabetes and Clinical Endocrinology Group are experts in the field of osteoporosis prevention, detection and treatment, and have developed an aggressive, multidisciplinary approach to prevention and early detection of the disease. From stressing proper diet and lifestyle behaviors in adolescents who have a family history of the disease, to prescribing therapeutic measures to people showing early signs of onset, their goal is to lessen the burden of this debilitating condition. The physicians carry out their evaluations using sophisticated tests, and are particularly focused on those most likely to develop the disease: women.



*At age 40, there are no noticeable effects of osteoporosis.*

"We're trying to provide an intelligent, multidisciplinary approach to women of all ages to help them maintain a healthy skeleton," says Michael F. Holick, Ph.D., M.D., director of the Group's Bone Health Care Center, and an internationally recognized investigator of vitamin D deficiency related to osteoporosis. "We work with staff from nutrition, social services and physical therapy to give patients information on dietary requirements, as well as the types of activities and exercises they can do to help themselves.

"We believe that early diagnosis and intervention is key to preventing or minimizing the consequences of the disorder," he says.

Osteoporosis results from a dramatic loss of calcium and collagen matrix from the bones, and is an abnormal extension of a process that occurs normally in all people as they age. During aging, the bones undergo a decrease in bone mass, leading to decreased density and porous, thin, weak bones. This process, called demineralization, makes bones susceptible to fractures, particularly those of the vertebrae (back), wrists or hips. It often causes loss in height and deformities of the back.

The condition does develop in both men and women, generally over the age of 50, but the process and dramatic onset of osteoporosis is more

pronounced in women, and generally sets in as a result of menopause-related bone loss. It develops in 25 percent of all women over the age of 45, and in 90 percent of women over the age of 75.

Osteoporosis is less common and slower to develop in men because they start out with more bone mass than women and lose it at a much slower rate. Some 15 percent of men at age 90 suffer a hip fracture as a result of osteoporosis, compared to 25 to 30 percent of women.

## **Role of nutrition**

For most women, taking steps early on in life to prevent the onset of osteoporosis means developing lifelong nutritional and lifestyle habits that will provide them with enough calcium and vitamin D to offset the deficiencies that occur as a result of normal aging. Unless a youth has a strong family history of the disorder, adhering to these guidelines should be sufficient, according to Holick.

"There is ample evidence demonstrating that if a woman increases her calcium intake years



*At 60, there is a slight decrease in height and curvature of the spine.*

before menopause—starting from childhood and continuing through her 30s and 40s, she can substantially increase her bone-mineral density," he says.

"We recommend between 800 to 1,000 milligrams of calcium daily for adolescent girls and women up to the age of 45 to 50; for women over the age of 50, the intake should be increased to more than 1,200 milligrams each day," he says. An 8-ounce glass of skim milk contains 300 milligrams of calcium, as does a Tums EX tablet. "If a woman can tolerate milk, she should drink two to three glasses daily. If she prefers to drink just one glass, she can supplement her intake with two or three Tums EX tablets or one of the many calcium supplements that are sold in pharmacies and supermarkets."

A deficiency of vitamin D, which plays an important role in the absorption of calcium, can cause and exacerbate osteoporosis by accelerating the rate of bone loss. "A woman with inadequate levels of vitamin D cannot mineralize bone, so all that's left is a rubbery structure that provides no structural support," Holick explains. "If you have osteoporosis and porous bone, and the new bone you're laying down cannot be calcified, it's obvious that the new bone is going to be of little or no benefit," he says.

Maintaining the body's natural store of vitamin D is not ordinarily a concern for people who spend time outdoors, because casual exposure to sunlight creates enough vitamin D for storage in the fat to last through the winter. It is a greater issue in elderly women, who may not get enough sun exposure through fear of wrinkles or skin cancer, or an inability to leave their homes.

"We conducted a study at a local nursing home, which revealed that 80 percent of the residents were borderline to overtly vitamin-D deficient," Holick says. For people who aren't getting adequate sun exposure—which means being in sunlight three times a week for 15 minutes—Holick recommends a daily multivitamin containing 400 units of vitamin D.

### Early intervention

All women approaching menopause should be evaluated to see whether they should be placed on hormone-replacement therapy to prevent menopausal bone loss. For those people exhibiting the symptoms of osteoporosis, such as a decrease in height, fractures of the vertebrae, wrists or hips, or for those who have a family history of the disease, an evaluation is particularly advised.

"If we have a patient approaching menopause who has a history of a mother or older sister losing several inches of height at the age of 60 or 70, there is concern that she is at risk for developing osteoporosis," says Holick. An evaluation also is in order for women—and men—taking steroid medications for the treatment of asthma or other conditions, because steroids accelerate the process of bone loss.

For those who have already begun to develop the signs of bone deterioration, or osteoporosis, there are treatments that can work to stall or deter further onset.

Early detection is key to preventing or minimizing the consequences of the disorder, which occurs in all people to some degree by the time menopause begins. "Even before a woman reaches menopause, as her hormones begin to decline, she will lose 2 to 3 percent of her



*A dual energy, x-ray bone densitometer, like the one shown in the procedure above, is used to determine a person's bone density by measuring the calcium content in the lumbar spine and hip. The procedure is being conducted by research assistant Adrian Turner.*

bone-mineral density each year," says Holick. "If it takes two or three years to finalize menopause, a woman can lose up to 9 percent of her bone density before even starting menopause."

However, he notes, "The calcium a woman has 'stored up' in her skeleton through her earlier years as a result of proper nutrition, exercise and not smoking, can help prevent the ravages of osteoporosis from developing post-menopausally."

### Technology measures bone density

Physicians in the Bone Health Care Center use a number of sophisticated pieces of equipment to evaluate specific aspects of bone mass and thus determine a person's propensity to develop the disease or her risk for suffering hip and spinal fractures.

A dual energy, x-ray bone densitometer, which registers accuracy to within 1 and 2 percent, is used to determine a person's bone density by measuring the calcium content in the lumbar spine and



*By 70, fractures to the spine have caused severe damage.*

hip. "We can test a woman's bone density and let her know where she is relative to someone her own age," says Holick. "By following her every one or two years, we can tell her at what rate she's losing bone, and begin to advise her about dietary and other lifestyle changes, such as doing weight-bearing exercise, which can increase bone mass. We also can take a more aggressive approach, such as hormone-replacement or other drug therapy, if she is losing bone at a rapid rate."

Later this spring, the Bone Health Care Center will introduce a new state-of-the-art peripheral quantitative computer tomography (PQCT) densitometer, which will enable physicians to examine the difference in bone density between the trabecular, the "honeycomb" part of the bone, and the cortical bone, which is the hard outer wrapping that gives bone some of its structural strength. In addition, physicians will be able to measure the density of a person's bone marrow using the PQCT densitometer. "This machine will give us the ability to scan the hip and spine separately and more quickly than before," says Holick.

Another important diagnostic tool employed by the clinic's physicians involves the use of a stadiometer, a sophisticated device that can measure a person's height within an accuracy of 0.1 percent. "This precision is extremely important, because a decrease in height is one of the earliest manifestations of osteoporosis," says Holick.

### **Treating the condition**

There are a number of treatments currently being used to treat osteoporosis, the most common being hormone-replacement therapy, which involves using estrogen to reduce the rate of bone loss, and progesterin, to counteract possible side effects of estrogen. "It appears that estrogen stops rapid bone loss because bone cells are dependent on the hormone to maintain full activity," says Holick. "While estrogen, the 'female hormone,' is not used to treat men with

osteoporosis, there are other treatments available," he adds.

The therapy's efficacy in controlling the course of osteoporosis, as well as in relieving menopause-related symptoms, such as hot flashes, painful intercourse and mood disturbances, and reducing a woman's risk of developing cardiovascular disease, is well-documented. However, there are as-yet-inconclusive indications that estrogen replacement therapy increases the risk of endometrial

*'If a woman increases her calcium intake years before menopause—starting from childhood and continuing through her 30s and 40s, she can substantially increase her bone-mineral density.'*

cancer and a suspicion that it increases a woman's risk of developing breast cancer.

To reduce the risk of endometrial cancer, the clinic administers both estrogen and progesterin in synchronization with the monthly menstrual cycle. "I feel very strongly that it's important to mimic Mother Nature by giving hormone replacements in a cycle, rather than continuously, although it means that a woman continues to menstruate," explains Holick.

Likewise, in an attempt to minimize the possibility of estrogen-associated breast cancer, Holick consults with, and refers patients to, the Hospital's Breast Health Center for assessment and monitoring.

In particularly serious cases of osteoporosis, bisphosphonate, a drug that inhibits cells from destroying the bone, is administered in a cyclical fashion along with calcium.

### **Promising research**

In search of even more effective treatments, Holick and his colleagues are currently looking for patients to participate in a study of a third-generation of bisphosphonate drugs, which help to retard bone loss.

The team also has submitted a research proposal to develop new forms of estrogen and new bone-targeted drugs that are aimed at providing unique advantages and fewer side effects than those associated with current preparations on the market.

"We are also involved in looking at what factors control vitamin D production in the skin, in order to understand why aging decreases the skin's ability to make this vitally important vitamin. We also are developing indoor lighting for the elderly that mimics sunlight so that the elderly can produce vitamin D in their skin while indoors," says Holick.

In addition, Holick and his colleagues are developing a new form of the active vitamin D, a compound that Holick discovered 17 years ago. The BUMCH group was the first to synthesize the compound in the laboratory for clinical use. This hormone has recently been reported to reduce bone loss and decrease the risk of bone fracture in more than 600 women in New Zealand.

### **■ FOR YOUR INFORMATION**



**Dr. Holick** is director of the Bone Health Care Center of the Evans Medical Group at BUMCH, a professor of medicine,

dermatology and physiology at Boston University School of Medicine, and chief of the Endocrine and Metabolism Division at Boston City Hospital.

For more information on the Bone Health Care Center or on programs serving the needs of patients with other metabolic or bone diseases, please call 1-800-842-3648 during business hours.



# POST-MASTECTOMY BREAST RECONSTRUCTION:

*Giving women a psychological edge*

BY KATHRYN C. JONES

**W**e've all heard it by now: One out of every nine women in

America, at some point during her lifetime, will be told that she has breast cancer. Confronting the diagnosis of the disease, and dealing with the individual prognosis, is a woman's preeminent challenge. But a real, if secondary, issue is often the possibility of having to lose one or both breasts to mastectomy, a treatment option chosen by most women in New England with early stage breast cancer.

At Boston University Medical Center/The University Hospital (BUMCH), however, the availability of immediate post-mastectomy breast reconstruction enables 80 percent of mastectomy patients to leave here with a head start.

While immediate reconstruction has been technically feasible for years, the Hospital is one of the few health care facilities in Boston that can offer the service, according to Gaspar W. Anastasi, M.D., BUMCH chief of plastic surgery. Anastasi credits this achievement to the Breast Health Center's multidisciplinary approach to treatment, which puts an emphasis on coordinating the schedules of its physicians—in this case, surgical oncologists and plastic surgeons.

"Other hospitals are capable," says Anastasi. "But, to be honest, I think the main reason reconstruc-



*Breast-cancer patients like BUMCH operating room nurse Mary Medeiros, R.N., have benefitted from post-mastectomy breast reconstruction.*

tion is not done immediately elsewhere is that it becomes very difficult to coordinate surgeons' schedules. We have a multidisciplinary group here. That's the key."

### **Given the options...**

Women who undergo mastectomies, or the surgical removal of breast tissue, have several options for dealing with the outcome. They can opt to live with their new shape, wear an external prosthesis, or undergo reconstructive surgery, either immediately following a

mastectomy or at some later point.

There are, Anastasi notes, some clear-cut cases where breast reconstruction should be delayed until months following surgery: When the mastectomy patient will receive x-ray therapy or chemotherapy following her surgery, Anastasi says he will begin the reconstruction process immediately but will not complete it until after the required treatment.

There are some physicians who favor delaying reconstruction for months in all cases, though Anastasi says he does not see the need. "Philosophically, those who are opposed to immediate reconstruction feel it may be more than a woman can mentally tolerate at one time: Not only does she have to worry about the removal, but also about the reconstruction of her breast," Anastasi says. In such cases, other physicians often make any decision regarding breast reconstruction

for a patient prior to surgery. "I don't go for that," Anastasi notes.

"I talk to all of my patients well before their mastectomies," Anastasi says. "I ask them what they want, and, if they are hesitant, we wait. But there is also common sense involved," he says. "If during a mastectomy, a woman has lost a lot of blood, or more skin is removed than initially planned and there may be difficulty closing the incision, then I will decide, right there in the operating room, that we won't do it."

### 'Changing of the guard'

In the operating room, after a team of surgical oncologists, led by Maureen Kavanah, M.D., completes a mastectomy, a new team of physicians, led by Anastasi, enters the operating room and takes over, carrying out a literal changing of the guard over the operating table. When Anastasi arrives on the scene, the woman's breast tissue has been removed, leaving her pectoralis

*'The permanent implant is a bit smaller so that the breast hangs, giving it a more natural appearance.'*

major muscle exposed. He begins the process of reconstruction, known as tissue expansion, by inserting a temporary implant (expander) into the mastectomy area beneath the muscle, and filling it partially with saline, thereby beginning a gradual process of expanding the chest muscle and skin. This process is carried out over a period of weeks on

an outpatient basis.

The expander, which resembles a deflated balloon, is filled with saline solution through a valve left outside the body. "That's what makes tissue expansion unique," says Anastasi. "You're not taking tissue from the abdomen, you're not taking tissue from the back; you are simply taking tissue that is there already and stretching it slowly using the expander." The incision is then closed, leaving the woman with "some fullness," Anastasi says. The procedure generally takes about an hour and a half, while the mastectomy itself takes about two hours.

Anastasi uses saline—rather than silicone—implants for all his reconstructive procedures, in part because there is less risk associated with the solution of a saline implant should there be leakage.

Approximately one month after the operation, the woman returns to the Hospital on an outpatient basis to have the expander filled, through the valve, with more saline, a process she repeats several

times. "The expander stretches the skin and the muscle like a pregnancy," Anastasi says. The patient subsequently returns to have the implant filled every week until the skin is stretched a little beyond the desired size of the breast.

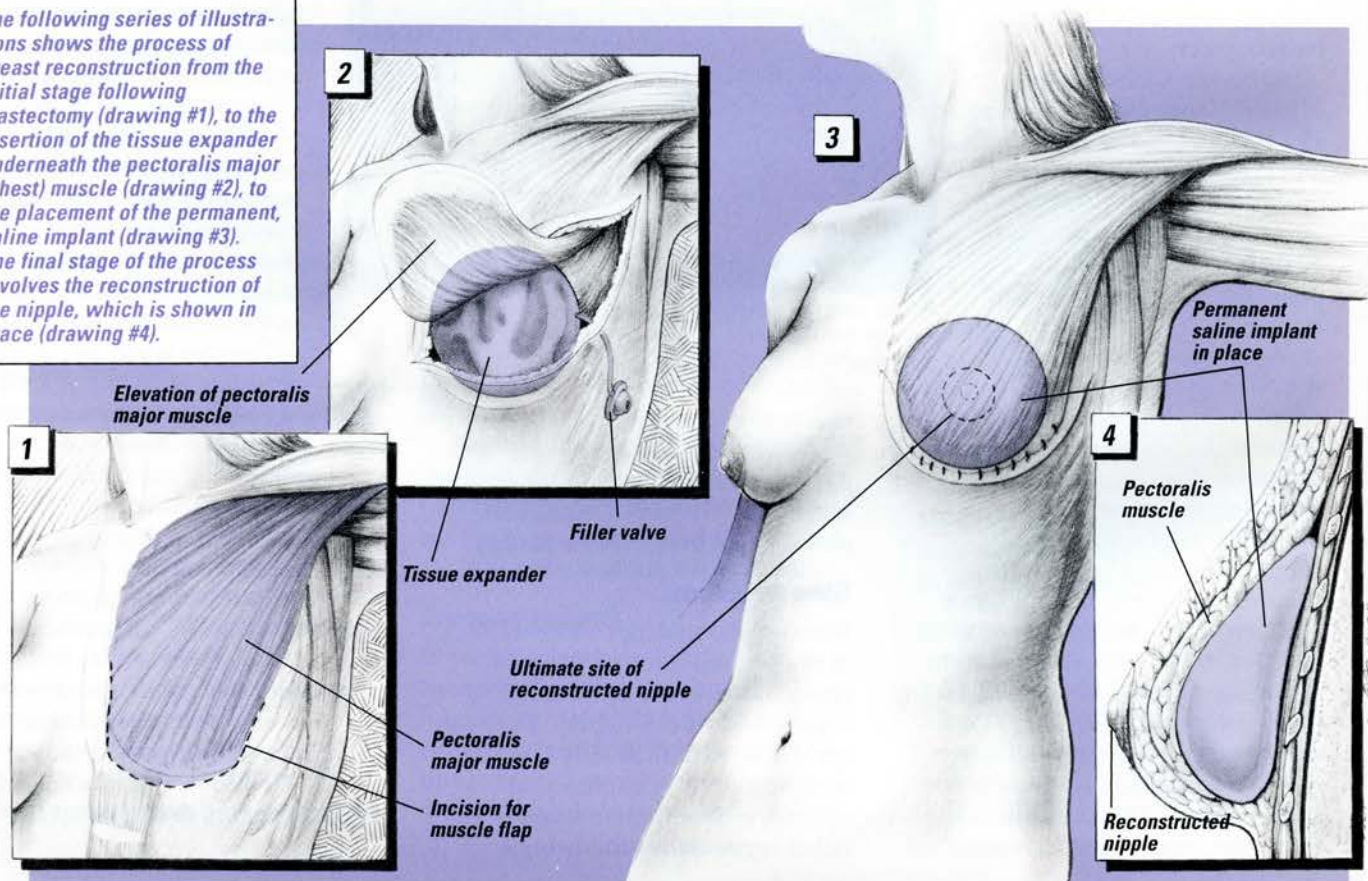
After the desired size has been attained, the woman returns to the operating room for her second and final surgery, where the expander is removed and a permanent implant is put into place. "The permanent implant is a bit smaller so that the breast hangs, giving it a more natural appearance," Anastasi says.

The final step in the process, if a woman so chooses, is the reconstruction of the nipple, which is carried out using local skin tissue and skin grafts from the groin.

The average time required to complete the entire process of mastectomy, expansion and reconstruction is about six months.

This ambitious reconstructive approach is just one example of the multidisciplinary, comprehensive service offered by the Hospital's Breast Health Center (see sidebar),

*The following series of illustrations shows the process of breast reconstruction from the initial stage following mastectomy (drawing #1), to the insertion of the tissue expander underneath the pectoralis major (chest) muscle (drawing #2), to the placement of the permanent, saline implant (drawing #3). The final stage of the process involves the reconstruction of the nipple, which is shown in place (drawing #4).*





## BUMC'S BREAST HEALTH CENTER

*With the number of breast-cancer cases in the United States growing at an alarming rate, the need for women to maintain the health of their breasts is more important than ever. The Breast Health Center at Boston University Medical Center/The University Hospital has responded to that need, bringing together a multidisciplinary staff of general internists, surgical and medical oncologists, pathologists, radiologists and plastic surgeons dedicated to the increasing number of issues associated with breast health.*

*The Center's mission is to provide easily accessible, personal, educational and comprehensive care to women, focusing on the health—as well as the diseases—of the breast. Perhaps the most significant component of the Center is that its core staff is composed of female physicians—four in all—who, together, founded the program in 1989. Core team members are surgical oncologist Maureen Kavanah, M.D., medical oncologist Marianne Prout, M.D., and Risa Burns, M.D., and Karen Freund, M.D., both internists in the Women's Health Group.*

*In response to the growing demand for its services, the Breast Health Center recently expanded its hours to include Monday mornings. It is also open all day on Thursdays. Women interested in making appointments should call 1-800-848-4808.*

which reflects a genuine commitment to working with patients from their primary evaluations through any medical consultation or treatment they might need.

### **One patient's story**

BUMCH operating room nurse Mary Medeiros, R.N., learned firsthand

how helpful the Breast Health Center team was, and how comforting immediate breast reconstruction could be. Though Anastasi and the Breast Health Center team have been performing immediate reconstructions for almost five years, Medeiros had never observed the procedure in her four years as an OR nurse. That changed last summer, when she was forced to face her own need for a mastectomy.

Last June, having previously had a lumpectomy in her right breast, Medeiros, 59, was diagnosed with infiltrating ductile cancer in the same breast. She had two options for treatment: One was to have another lumpectomy, including removal of the lymph nodes in the armpit, and radiation with the possibility of chemotherapy; the other was to have a total mastectomy. Because she has emphysema, she chose not to opt for the method that would require radiation because of the burning and scarring it would cause to her already irritated lungs.

As is the case with all Breast Health Center patients, Medeiros was given a full explanation of the reconstruction options that would be available to her following her mastectomy. Learning about immediate breast reconstruction was a pleasant surprise for her. "I didn't know about the tissue expander," she says. "I thought it was a great idea. I wanted to learn more."

Because she had never had the occasion to observe the procedure, Anastasi informed her of his next operation and suggested that she assist. Following that surgery, Medeiros told her doctors that she wanted to have immediate breast reconstruction. "[The physicians at the Breast Health Center] explained everything to me and made sure I understood. By the time I was ready for surgery, I was confident that I was doing the right thing," she said.

Medeiros underwent surgery in July, and was in the Hospital for less than a week following the mastectomy and tissue expansion. She describes the subsequent outpatient process of having the expander filled as being only slightly

uncomfortable. "I was always aware of it being there, but it caused little pain," she says. On Nov. 24, she underwent the final stage of reconstructive surgery, having the expander replaced with the permanent saline implant. "Two weeks later, I was feeling good already," she says. So good, in fact, that Medeiros was back working before Christmas.

### **Until there is a cure**

The number of immediate breast reconstructive procedures performed has grown in the five years that the Hospital has offered the option. "We have gone from performing one or two a year to two or three a month," says Anastasi, acknowledging, however, that the increase may be due in part to the increase in the number of cases of breast cancer.

Anastasi says he hopes that as long as mastectomy remains an approach to breast-cancer treatment, the method of immediate tissue expansion will be used increasingly by hospitals. "Psychologically," he says, "I think immediate breast reconstruction takes a negative feeling that women have about mastectomy—that they are losing something—and turns it into something more positive. With the tissue expander, women feel that something is being done to restore their normal appearance."

### ■ FOR YOUR INFORMATION



**Dr. Anastasi** is chief of the Department of Plastic and Reconstructive Surgery and is a clinical professor of surgery at

Boston University School of Medicine.

For more information on breast reconstruction or on other plastic surgery or reconstructive services offered at the Hospital, please call 1-800-842-3648 during business hours.

# A Wider Scope of Expertise

*Hysteroscopy and laparoscopy provide new opportunities in gynecology*

BY CYNTHIA L. LEPORE

**F**rom her college years onward, Arlene Ash, Ph.D., 46, was plagued by menstrual cramps so severe that they sometimes caused her to lose consciousness. But like millions of women, Ash found relief from the recurring pain in a bottle of ibuprofen. Then two years ago, she began experiencing unusually heavy menstrual bleeding, a condition experienced by as many as 30 percent of women of reproductive age. Hoping the bleeding was related to menopause, Ash put up with the problem for several months until her symptoms grew increasingly worse.

"That's when I decided I had to deal with it," she says.

A member of the Health Care Research Unit at Boston University Medical Center/The University Hospital (BUMCH), Ash ended up in the office of a colleague, Robert M. Weiss, M.D., director of reproductive endocrinology and infertility. Weiss is one of only a few physicians in Boston with expertise in operative hysteroscopy, an outpatient surgical procedure that enables a physician to evaluate and treat abnormalities inside the uterus.

While hysteroscopy is not a new technique, recent advances in its instrumentation have expanded the ways in which it can be used as a corrective therapy: The technique is now being employed here as the approach of choice to detect and correct a wide range of common yet debilitating gynecologic disorders, from abnormal menstrual bleeding to infertility. The good news for patients is that hysteroscopy, like a number of other endoscopic procedures now being performed routinely by BUMCH surgeons, can be accomplished with less trauma, less recovery time and less cost than traditional surgery. And when it is used as a diagnostic tool, hysteroscopy can be performed in the doctor's office.

"In the case of a patient where the cause of pain or bleeding is not clear, or where the patient does not respond to medical management, a hysteroscopy may be helpful in obtaining a full and comprehensive evaluation," says Weiss, who received special instruction in using the technique during his post-graduate training.

Such was the case with Ash, for whom Weiss could find nothing pathologically wrong after taking a biopsy of her uterine tissue. Even a three-month regimen of Provera, a hormone commonly prescribed to decrease unusually heavy bleeding, failed to correct the undiagnosed problem.

That diagnosis came quickly and effortlessly within only minutes of beginning the procedure. Using the hysteroscope, a long, thin, flexible scope that is inserted into the uterus via the vagina, Weiss was able to visualize the inside of the uterus on a video monitor and determine the source of his patient's bleeding—a large, noncancerous, fibroid tumor, located on the uterine wall. Ash, who was awake throughout the entire procedure, was able to observe the tumor. "It was amazing to see this large bulbous growth in living color," she said. "I was fascinated by the whole thing."

Before hysteroscopy was avail-

able, a dilation and curettage ("D & C") performed in the operating room was the principal way to evaluate the causes of abnormal bleeding. Though it still remains a viable diagnostic technique used by many gynecologists today, the D & C may fail to diagnose up to 35 percent of submucous uterine fibroids (tumors located inside the uterus) and polyps as the source of bleeding problems, says Weiss.

## **Hysteroscopy = fewer hysterectomies**

As recently as five years ago, a woman with symptomatic fibroids almost always ended up with a hysterectomy, a full-blown surgical procedure in which the uterus is removed, thereby preventing the possibility of pregnancy. In sharp contrast to the endoscopic approach,



*Using the hysteroscope, Hospital gynecologists are able to detect and treat abnormalities inside the uterus. During an in-office examination, Robert Weiss, M.D., above, points out a noncancerous, uterine fibroid to a patient.*

a hysterectomy usually requires spending four to seven days in the hospital and up to six weeks recuperating at home. In opting for a hysteroscopy, Ash also was spared

another major operation, called abdominal myomectomy, a procedure that involves opening up the abdomen, excising the fibroids and leaving the uterus intact.

With the aid of the hysteroscope and a cutting attachment known as a resectoscope, Weiss and his surgical team removed the fibroid. The entire operation, which took about 90 minutes, was performed on a Friday. Though women with smaller fibroids usually can go home that same day, Ash—whose fibroid was between three and four centimeters large—remained in the hospital overnight for observation and was discharged the next morning. She was back at work on Monday. Since her surgery, the abnormal bleeding has stopped.

Because of the large size of her



fibroid, Ash was given injections of a new drug six weeks prior to her surgery that shrinks both the fibroids and the surrounding tissue to provide a better view of the tumor during surgery. Called Lupron, the drug is being tested in the BUMCH Department of Gynecology as part of a multicenter study that will determine its usefulness as an adjunct to myomectomy. Already

FDA-approved for use in treating endometriosis, Lupron appears to halt the production of estrogen, thus denying the fibroids the nourishment they need to grow.

While hysteroscopy is also being employed by BUMCH gynecologists to detect and treat polyps and some cases of infertility, it also is used to perform endometrial ablations. This outpatient surgical procedure, also an alternative to hysterectomy, is considered suitable for treating abnormal uterine bleeding or severe menstrual pain for which there is no apparent cause. However, because it results in the permanent suppression of menstruation in 80 percent of cases, it is reserved for women who do not wish to have children. During an endometrial ablation, a physician uses the hysteroscope and a rollerball instrument to cauterize the lining of the uterus, or endometrium, thus preventing the monthly "shedding" of the uterine lining.

#### **Laparoscopy: safe and versatile**

Highly regarded for its safety and versatility, laparoscopy is yet another surgical approach being taken by Hospital gynecologists to excise fibroid tumors located outside the uterus, to remove and repair damaged fallopian tubes and ovarian cysts, to treat endometriosis, and to assist in vaginal hysterectomies.

In a relatively new technique, BUMCH gynecologist Ginter Sotrel, M.D., is using the laparoscope to reverse sterilization in women. Sterilization is a surgical procedure that involves the cutting of a woman's fallopian tubes in order to prevent conception.

Previously, the intricate process of reconnecting the fallopian tubes could only be accomplished through major surgery, typically necessitating a four- to six-inch abdominal incision, three to four days in the hospital and up to a month of recuperation. The advantage of laparoscopy is that it requires only four tiny incisions, requires no hospitalization and decreases the patient's recovery time to three to four days.

The entire operation, which takes about three to four hours, is conducted through the incisions, with one port being reserved for the laparoscope, a second for a carbon dioxide laser and the remaining two for other surgical instruments. With the aid of the laparoscope to visualize the inside of the abdomen and the tubes, Sotrel uses the laser to transect and open the tubes then reconnect them by microscopically suturing the open ends together, thus enabling the passage of the egg to the uterus.

The other major benefit of the laparoscopic reversal, says Sotrel, is its cost, which is about three times less expensive to perform than open surgery. This comes as welcome news for patients who must pay for the elective procedure out of pocket because it is not reimbursable by medical insurance.

#### ■ FOR YOUR INFORMATION



**Dr. Weiss** is director of reproductive endocrinology and infertility and is an assistant professor of obstetrics and

gynecology at Boston University School of Medicine.



**Dr. Sotrel** is a member of the Department of Gynecology and is an associate professor of obstetrics and gynecology at

the School of Medicine.

For more information on gynecologic hysteroscopy or laparoscopy or on other gynecologic services offered at the Hospital, please call 1-800-842-3648 during business hours.



# Women and Aging

*Preparing will help ensure they really are 'golden years'*



*As America continues to age, the health care community and the federal government will be faced with the daunting challenge of caring for an elderly*

*population that is expected to reach 70.5 million by the year 2050. For the most part, this population will be composed of elderly women, who, by age 65, can expect to live another 18.6 years—four more years than men.*

*In the following interview, Patricia P. Barry, M.D., the new chief of geriatrics and director of the Home Medical Service at Boston University Medical Center/The University Hospital (BUMCH), and the director of Boston University's Gerontology Center, shares her views on a variety of topics affecting women and aging, and discusses the impact of home-care programs on the quality of life for older Americans, in general.*

**Progress:** It has been well-documented that although women live longer than men, they do not necessarily live better because they are prone to chronic debilitating diseases. What is being done to address this phenomenon?

**Barry:** In geriatric medicine, a great deal of emphasis is placed on trying to maximize function and minimize disability due to chronic disease in older people, particularly older women. Some of the ways in which we can achieve this goal entail optimizing the physical health of the elderly, preventing disability, and providing them with the services they need to remain independent in their homes, including rehabilitation.

**Progress:** Many women today aged 65 and older are "home alone"—that is, they are three-and-a-half times more likely to be widowed than men, and are more likely to end their lives in nursing homes. What are some preventive measures that women can take early in life to enable them to live healthier later?

**Barry:** We could try to help men to live longer, and I'm not being facetious. Actively working to help men live longer would help women because it would give them companionship and support in old age. In terms of what women can do to age better, the obvious answer is that they can take better care of themselves when they are young. Maintaining an active lifestyle, not smoking, eating well, drinking only in moderation, and undertaking good preventive medicine, including screening for hypertension and breast and other cancers, can better prepare women for their golden years. Staying fit mentally is also important, as is staying involved with family and community. There is no question that successful aging does require some effort. But it generally pays off, and those who make a concerted effort early on in life are the ones who tend to remain healthier as they age.

**Progress:** What are some of the special medical problems facing older women?

**Barry:** The leading cause of death in older women right now is actually cardiovascular disease. Though we have been led to believe that heart disease strikes only middle-aged men, it is an equally important disease of older, post-menopausal women. Arthritis is also another disease that causes a great deal of disability in older women. The musculoskeletal diseases, in general, are the leading cause of functional disability in the elderly. Osteoporosis is also a significant problem in older women. Though older men also can develop this condition, it is primarily associated with women, who, because they

have smaller bone mass, are more at risk particularly after menopause.

**Progress:** The 14-year, \$625-million Women's Health Initiative, the largest clinical study ever undertaken in this country, is aimed specifically at women's health in their last third of life. However, it has been criticized by some who say it will not adequately address the health issues of all women, particularly those from minority and poor and low-income segments of the population. As a researcher and a clinician, do you have faith that such an endeavor will bear fruit?

**Barry:** This study should answer some very important questions about the use of estrogen and its efficacy in risk reduction for cardiovascular disease and osteoporosis, as well as its role in breast cancer, endometrial cancer and other diseases. It also should shed light on the differential risk factors of various racial and socio-economic groups of women for disabling or lethal illness.

**Progress:** The Home Medical Service has been providing home care to Boston's elderly for more than 115 years. As health care costs continue to spiral, it would seem that home-care programs are a more cost-efficient approach to providing care than hospitalization or nursing homes.

**Barry:** Without a doubt, home care is less costly than hospitalization. Whether it is less costly than nursing home care is not as clear. Unfortunately, this becomes a question of whether as a society we let cost determine the type of services to be provided. Of interest is that we don't always do that in other areas of health care in this country.

In general, I think that home care offers tremendous benefits in terms of patient-related quality of life. Most people are better off if they remain at home, and that's what they prefer.



**G**iven America's love affair with food and its obsession with the waistline, it's not surprising that millions of Americans—most of them females—fall victim each year to eating disorders. "We're dealing with a society that puts much more pressure on women not only to be of normal weight, but to be underweight," says Karen M. Freund, M.D., director of the Women's Health Group at Boston University Medical Center/The University Hospital (BUMCH).

Recognizing the frequency and severity of eating disorders, Freund and her colleagues at the Women's Health Group are working to address the issue more closely in the primary care setting.

Focusing their attention on detection, they have developed a screening tool that involves simply asking two questions, "Are you satisfied with your eating patterns?" and "Do you ever eat in secret?," that physicians can use as a warning of bulimia. Characterized by binge eating followed by self-induced vomiting or the use of laxatives to counteract weight gain, the condition is believed to affect some 3 percent of all U.S. women between the ages of 14 and 40.

"The challenge with bulimia is that a person doesn't exhibit any obvious physical signs because she often appears to be of normal or even above-normal weight," says Freund. "Even the medical complications that can result from bulimia, such as a sore throat or gastrointestinal bleeding, may not be linked with the disorder because the problems are so non-specific in nature."

Another factor that makes bulimia so challenging to diagnose, Freund says, is that its sufferers are extremely embarrassed and secretive about their binge-and-purge behavior. However, because they are capable of functioning normally,



## DETECTING BULIMIA

*Two key questions help patients confront a difficult situation*

bulimics often struggle with the illness for five to 10 years before they seek treatment. "This is not something that a woman will readily walk in with and say, 'Hey, this is a problem,'" says Freund. "It therefore requires a sensitive physician who is tuned in to bulimia as a possibility and a patient who feels trusting enough of that provider to begin to disclose her situation."

In a BUMCH study published in the May issue of the *Journal of General Internal Medicine*, a team of researchers, led by Freund, found that the two simple questions referred to above may be as effective as a more extensive questionnaire in identifying women with eating disorders. The researchers also found that the questions can be easily incorporated into the routine medical history obtained from all women. Says Freund, "Our goal was to develop an approach by which physicians could inquire about eating disorders in a non-threatening manner."

It is important for physicians to remember that not all women who

respond affirmatively to these questions should be labeled bulimic, Freund notes. "For some women, additional questioning and discussion of their eating behaviors is indicated to see whether further evaluation or referral is actually necessary," she says.

Though nearly all of the bulimic women participating in the study reported seeking medical attention for problems they felt were related to their bulimia, many said that their health care providers were unaware of their eating disorder. "This suggests that we were successful in recruiting some of the very patients whose problems remain undetected and who might benefit from screening for eating disorders," says Freund.

While the staff of the Women's Health Group continues to test the effectiveness of its new approach, the physicians have found the technique overwhelmingly successful to date. "Our preliminary data suggests that this line of questioning would be very effective in providing physicians with a rapid, easy way to begin to differentiate women who might have an eating problem," says Freund.

*Cynthia L. Lepore*

### ■ FOR YOUR INFORMATION



**Dr. Freund** is director of the Women's Health Group and is an assistant professor of medicine at Boston

University School of Medicine. For more information on eating disorders or on other services offered at the Women's Health Group, please call 1-800-842-3648 during business hours.

# Stem Cells to the Rescue

*New autologous blood therapy shown successful in treating difficult cancers*

**A** new alternative to bone-marrow transplantation, in which a person's own blood cells rescue the bone marrow after high doses of chemotherapy, is being tested against certain cancers at Boston University Medical Center/The University Hospital (BUMCH), and is shown to have very favorable results.

Called autologous peripheral blood stem-cell infusion, this therapy involves the drawing of a person's stem cells (tiny "seed" cells found in bone marrow and peripheral blood from which all other blood cells form) from the body's peripheral blood supply, freezing the cells, and then later thawing and infusing them to rescue a patient's bone marrow after high doses of chemotherapy.

At BUMCH, the therapy has proven successful in treating several patients with metastatic breast cancer and it is now being used on patients with different types of lymphomas, including Hodgkin's disease. Cancer and blood experts here also plan to test this therapy against small-cell lung cancer, the most aggressive form of lung cancer, but one that responds well to chemotherapy, and to test it against ovarian cancer, and a number of other malignancies that are chemotherapy sensitive.

The Autologous Stem Cell

Transplant Program, under the guidance of its director, Evan Vosburgh, M.D., and BUMC Cancer Center Director Douglas V. Faller, Ph.D., M.D., utilizes the expertise of Raymond Comenzo, M.D., director of the Hospital's Transfusion Medicine Service/Blood Bank, and Hospital medical oncologists Paul J. Hesketh, M.D., Sualp Tansan, M.D., and Howard Safran, M.D.

## How it works

This therapy finds its roots, literally, in the bone marrow. "Autologous bone marrow rescue has been shown to be very useful in lymphomas that have not responded to frontline therapy or in cases where the lymphoma has recurred," says Comenzo, an expert in such techniques. "From what we know, chemotherapy-sensitive diseases, in general, should yield a benefit from high-dose chemotherapy with stem-cell rescue. Data also is growing to support the view that in certain diseases, peripheral blood stem cells may be more useful than bone-marrow stem cells that are contaminated by malignant cells."

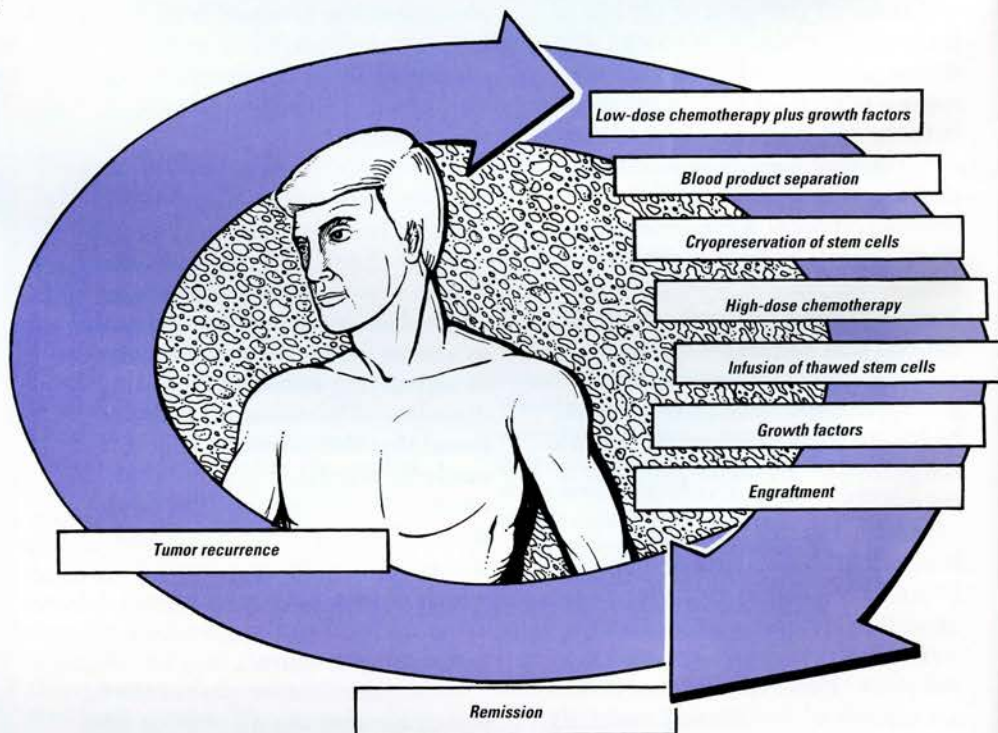
"Extremely preliminary, initial results with this approach in advanced breast cancer have been encouraging," says Hesketh. "Three

patients have been treated here as part of an ongoing study. All of these patients have completed treatment and are free of all signs of breast cancer at this time."

Stem-cell infusion is not a therapy in and of itself, Hesketh explains. "It is a method for fortifying the hematopoietic, or blood-forming, system so that intense doses of chemotherapy can be given, thus improving the effectiveness of the chemotherapy."

The first step of the therapy, known as "priming," is for patients to receive chemotherapy and growth factors, or growth factors alone, in order to induce the production of peripheral blood stem cells (PBSCs). The blood then is drawn from the patient and separated with a pheresis machine, using a new method developed by Comenzo called large volume leukapheresis (LVL).

In the conventional method, only 10 liters of blood are processed to harvest PBSCs in two hours, with the entire procedure taking about eight hours over a four-day period. With LVL, 15 to 35 liters of blood are processed in five hours, with the procedure taking about 10 hours or two days. "About two-and-a-half to three times more cells are collected in the last half of large volume



leukapheresis than in the first, possibly because the longer process somehow 'recruits' stem cells from the bone marrow," Comenzo explains. Once the cells have been collected, the next step is to freeze them. Using a chemical preservative called dimethylsulfoxide (DMSO), the cells are stored in bags and frozen at 80 degrees below zero.

After patients have received high-dose chemotherapy, the bags are brought to the bedside, thawed and then immediately infused. "This product is essentially administered to 'rescue' the bone marrow that has been killed by the chemotherapy," says BUMC Cancer Center Director Faller. The therapy also "rescues" patients from infection and the need for multiple blood and platelet transfusions during the three-to-four-week period typically following high-dose chemotherapy when the white blood count is dangerously low.

#### **Bone marrow vs. peripheral blood stem cells**

Because the therapy is so new, experts are undecided as to whether stem cells from the peripheral blood are more viable than stem cells from the bone marrow. One advantage of peripheral blood stem cells, some physicians say, is that they repopulate faster than marrow cells and are more "committed" (dedicated to giving rise to white cells) in the peripheral blood. Critics, however, say that PBSCs may "burn out" or not be as committed after a certain period of time.

"The efficacy of these products is somewhat different," says Vosburgh. "Mobilized peripheral blood stem cells engraft rapidly for white cells and platelets in about 10 days, whereas marrow-based cells take about 18 days to engraft in most instances."

A major Atlanta-based study comparing the use of PBSCs and marrow-based cells in women receiving high-dose chemotherapy for breast cancer whose marrow appeared normal showed there to be no difference in the time it takes for white cells to engraft. However, the

study did find an overwhelming difference in cost, with the expense of obtaining peripheral blood stem cells exceeding that of marrow collection by a median of \$4,800 per patient.

Still, experts like Comenzo contend that there are clear-cut indications when PBSCs are more beneficial: When there is no bone marrow available from which to harvest the cells or when the marrow is diseased.

Debate also exists as to which of the two therapies is more tolerable to patients. Because harvesting bone marrow requires general anesthesia, PBSC rescue is generally considered more acceptable, particularly for patients who pose a surgical risk. But while drawing stem cells from peripheral blood is an outpatient procedure, it does require a minor surgical procedure, conducted under local anesthesia, in which a central venous line is inserted just below a patient's collarbone for use later on in collecting and infusing the stem cells.

One downside of PBSC rescue is that there is as much as a 20-percent incidence of non-engraftment for platelets. Concern about this risk has generated widespread controversy about the collection of bone marrow as a backup, particularly if the bone marrow is diseased. "There can be no question that, from the viewpoint of making minuscule the risks for non-engraftment, a backup is preferred, whether or not contaminating malignant cells are present," says Comenzo. "At the same time, however, a clinical decision has to be made whether to subject a patient to the possibility of multiple platelet transfusions or to run the risk of re-establishing the tumor."

So what can be expected from this therapy? Comenzo says that its success with some cancers could mean "a 15- or 20-percent long-term, disease-free survival rate. We're not going to see large numbers, such as an 80- or 90-percent cure rate. But when you're faced with a 0-percent survival rate as an alternative, 20 percent looks pretty good."

*Cynthia L. Lepore  
and Michael R. Paskavitz*

#### ■ FOR YOUR INFORMATION



**Dr. Comenzo** is director of the Transfusion Medicine Service/Blood Bank and is an assistant professor of pathology,

laboratory medicine and medicine at Boston University School of Medicine.



**Dr. Faller** is director of the Cancer Center at Boston University Medical Center and is a professor of medicine at

the School of Medicine.



**Dr. Hesketh** is clinical director of the Evans Section of Medical Oncology, director of the Hospital's Lung Cancer

Center and is an associate professor of medicine at the School of Medicine.



**Dr. Vosburgh** is director of the Autologous Stem Cell Transplant Program and is an assistant professor of

medicine at the School of Medicine.

For more information on the stem-cell infusion therapy, call 1-800-842-3648 during business hours.

This magazine's name, **Progress**, characterizes the continuing drive by physician researchers at an academic medical center to improve patient care and treatment options. The following two stories, first reported in **Progress** in December 1988 and January 1991, show how the early promise of two approaches is being realized.

## Human heart valves shown to outlast animal valves



Pioneers of transplant surgery based their work on the theory that there is no better substitute for human tissue than

human tissue. But only in recent years, after dealing with the problem of graft rejection, have surgeons begun to substantiate that theory.

One such study, conducted at Boston University Medical Center/The University Hospital (BUMCH), found that transplanted human heart valves, called homografts, are more durable than pig (porcine) valves. "After 10 years, 90 percent of human valves are still functioning properly, as compared to 70 percent of pig valves," says Richard J. Shemin, M.D., BUMCH chief of cardiothoracic surgery.

Valve-replacement surgery is a highly effective method of treatment for people with serious heart conditions, such as congestive heart failure and aortic stenosis. In 1986, Shemin performed the first successful cryopreserved human aortic valve transplant in an adult patient in New England.

Since then, he has transplanted more than 50 valves, and 98 percent of his patients are doing well today because of the surgery. In fact, some patients who formerly were unable to work and

function normally because of their heart condition now lead totally normal lives. "The immediate post-operative benefits of homografts, over the other valves, are well-documented for patients requiring a valve replacement due to infection of their heart valve," points out Shemin. "Our data shows that the long-term success rate is greater for human valves compared to pig valves when durability and the likelihood of blood clots from a valve are considered."

### The pros and cons

The issue of which type of valve—human, animal or mechanical—will offer patients the best long-term prognosis has been an ongoing source of debate among experts for years. One major advantage human valves have over the others is that the living cells that remain in the valve allow it to potentially repair itself after transplantation, which is not the case with pig or mechanical valves. Historically, however, human valves have been in short supply and, until recent years, scientists have not been able to store the valves in a way in which the living cells could be maintained for more than a few days. The current methods of preserving the valves in a frozen or cryopreserved state have an indefinite storage period.

Animal valves, meanwhile, although far more available, do not have the cellular quality of human valves. These valves are treated so they are not rejected by the body; however, they do wear out over time. Mechanical valves, while potentially more durable than either human or pig valves, can cause blood clots, which then require recipients to remain on a lifelong regimen of anti-clotting medication.

While Shemin's research suggests that, based on their success, homografts could replace the need

for pig and, in some cases, mechanical valves, he says that won't happen for one simple reason: "There aren't as many human valves available as there are patients who need them." Thus, in addition to supporting campaigns to attract more organ and tissue donors in the general population, Shemin is also researching ways to improve various types of animal and artificial valves.

### Cryopreservation, tissue availability are key

Shemin ascribes the improvement in storing human valves to advances in the way the valves are preserved. Surgeons are now able to harvest and store donated valves for an indefinite period through cryopreservation, a technique in which tissue is frozen so that its living cells are kept alive in a state of suspended animation. Donated valves are frozen in liquid nitrogen until recipients are identified for their use. Then the valves are thawed in the operating room and surgically implanted into patients. "This has become one of the most important advances in valve surgery over the past decade," Shemin concludes.

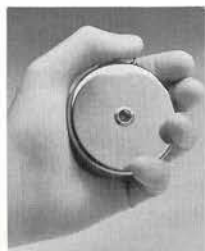
#### ■ FOR YOUR INFORMATION



**Dr. Shemin** is chief of the Department of Cardiothoracic Surgery and is a professor and chairper-

son of the Department of Cardiothoracic Surgery at Boston University School of Medicine.

## New drug and unique delivery control crippling muscle spasms



Imagine fighting a lifelong battle against a debilitating condition, a condition that, among other things, causes

muscle spasms so powerful and uncontrollable that they prevent you from eating or sleeping.

According to an ongoing clinical trial being conducted at Boston University Medical Center/The University Hospital (BUMCH), many patients who suffer from such spasms because of a number of underlying neurological conditions could have their quality of life improved by a relatively new drug administered in a new way.

The treatment is a drug called baclofen, a muscle-relaxing drug recently approved by the Federal Food and Drug Administration (FDA) that has a lasting effect in controlling muscle spasms. BUMCH, along with Rush-Presbyterian Medical Center in Chicago, has led the multicenter study of baclofen, looking specifically at the benefits derived from its unique delivery through a computerized drug pump. The patients participating in the trial are those whose spasms result from either a spinal-cord injury or multiple sclerosis.

Thus far, according to Joe I. Ordia, M.D., a Hospital neurosurgeon and the primary investigator of the baclofen study, 59 patients with these two conditions have been treated with

great success by him and his co-investigators, Edward Fischer, M.D., a BUMCH neurologist, and Edward L. Spatz, M.D., BUMCH surgeon-in-chief and chief of neurosurgery. "We have seen patients experience a complete turnaround in their ability to function following therapy," says Ordia. "The therapy provides immediate relief of spasms and offers a tremendous improvement in the quality of life for these patients."

### A powerful drug

Historically, the only method for treating uncontrollable muscle spasms that did not respond to oral muscle relaxants was surgery, which permanently destroyed the nerve causing the spasms, or chemical injections, which typically lost their effectiveness over time.

Baclofen originally was introduced in the mid-1970s as an oral medication that showed promise for controlling muscle spasms, but the drug had limitations. "Oral baclofen was effective in only 35 percent of patients because much of the drug was absorbed into the stomach, the bloodstream and even the brain," explains Ordia. "As a result, large doses were needed in order for the drug to be effective."

Researchers then set out to develop a liquid form of baclofen that could be delivered directly to the nerve that was causing the spasm. "Baclofen is much more effective when it is delivered directly to the spinal cord, the source of spasms," adds Ordia. "And because it can be given in much smaller doses than oral baclofen, the side effects are avoided."

### A unique device enhances treatment

Ordia and his colleagues at BUMCH helped in the development of the system used for administering the drug, a pump that delivers specific doses of liquid baclofen directly to the spinal cord. They did so using technology provided by Medtronic, Inc., a Minneapolis-based firm. Three years and dozens of patients

later, the SynchroMed Infusion System and baclofen appear to be a perfect match, and the answer for patients seeking relief from their spasms.

The pump, about the size of a hockey puck, is implanted by a neurosurgeon into the skin beneath the abdomen. Once implanted, it is programmed through a link-up to a desktop computer to dispense a specific amount of baclofen at specific time intervals. "A major advantage of this device is that it doesn't require any compliance by the patient—it is preprogrammed," says Ordia. "All the patient has to do is make sure he or she comes in for 30 minutes every two or three months to refill the pump."

Drug pumps have endless possibilities. Other types of pumps are already being used at BUMCH and elsewhere to deliver morphine to patients with intractable pain and to give chemotherapy to cancer patients.

Michael R. Paskavitz

### ■ FOR YOUR INFORMATION



Dr. Ordia is a member of the Department of Neurosurgery and is an associate professor of

neurosurgery at Boston University School of Medicine.

For more information on the homograft procedure or the baclofen pump, or on other cardiothoracic surgery or neurosurgical procedures offered at the Hospital, please call 1-800-842-3648 during business hours.

# NEWS & NAMES

On March 1, the Hospital opened the doors to a major new health care center at 930 Commonwealth Ave. for Boston University faculty, staff, their families and Boston-area residents. Called the **Commonwealth Medical Group (CMG)**, the multispecialty group practice provides a comprehensive range of outpatient adult and pediatric primary care services, as well as a number of specialties, including obstetrics and gynecology, ophthalmology, dermatology, orthopedics, otolaryngology (ENT), pulmonary/allergy and mental health.

**John H. Valentine Jr.** was elected as the new chairperson of the Hospital's Board of Trustees at the 138th Annual Meeting of the Hospital Corporation in December. He succeeds **Hugh Shepley**, who held the position for the past three years. Valentine, a 12-year member



*John H. Valentine Jr., left, and Hugh Shepley*

of the board, is director of entrepreneurial management at Boston University's Health Policy Institute and is the former president and proprietor of Beech Hill Hospital in Dublin, N.H.

Also in December, the Hospital Corporation elected new trustee **Robert P. Hanafee Jr.**, president of the stationery products division at the Gillette Company, and three new overseers (formerly called corporators): **Cheryl L. Clarkson**, acting chief executive officer of Peer Review Analysis, Inc.; **Tuan Ha-Ngoc**, executive vice president of the Genetics Institute, and **Chauncey C. Mayfield**, deputy director of economic development for the Economic Development & Industrial Corporation of Boston.



*Sen. Edw. M. Kennedy*

**U.S. Sen. Edward M. Kennedy** chaired a U.S. Senate Labor and Human Resources Committee field hearing on women's health

research at Boston University Medical Center on Jan. 11, acknowledging a dire need to boost federal funding for, and to promote research on, women's health. Speaking to some 400 members of the Medical Center community, National Institutes of Health (NIH) Director **Bernadine Healy, M.D.**, provided an overview of the NIH's mission to bolster the lagging research in this area. Her remarks were followed by the testimony of five other prominent female scientists, including two from Boston University School of Public Health.

**Mel B. Glenn, M.D.**, is the Hospital's new chief of rehabilitation medicine, succeeding **Murray M.**



*Mel B. Glenn, M.D.*



*Murry M. Freed, M.D.*



*From left, Chauncey C. Mayfield, Cheryl L. Clarkson, Tuan Ha-Ngoc, and Robert P. Hanafee Jr.*

**Freed, M.D.**, who served at the Hospital for 37 years. Glenn, who came to the Hospital from Tufts University School of Medicine, also assumed the roles of chairperson of the rehabilitation medicine department at Boston University School of Medicine and director of rehabilitation medicine at Boston City Hospital. He received his medical degree from New York University School of Medicine and completed his post-graduate training at the New York University Medical Center.

The Hospital has upgraded its magnetic resonance imaging (MRI) technology. One of the primary benefits of this new technology is that it cuts in half the time it takes to scan a patient for the image needed (from 30 minutes to 15 minutes). The enhancement has enabled the Hospital to increase the number of MRI examinations it performs daily and to extend its services to more types of patients, including those with bone, joint and musculoskeletal injuries.



*Susan R. Cerrone*

This past fall, the Hospital announced the reassignments of three senior managers: **Susan R. Cerrone** assumed the newly created

position of vice president for hospital information services; **Donald R. Giller** became vice president for regional operations, and **Elizabeth B. Stengel** undertook the post of vice president for external affairs.



*Elizabeth B. Stengel*

## MAKING HOSPITAL DONATIONS WORK FOR YOU

Dr. Leonard Jones (not a real person), 65, a long-time supporter of Boston University Medical Center/The University Hospital (BUMCH), holds certificates of deposit (CDs) valued at \$10,000 that will mature soon. Realizing that rolling his investment into new CDs would earn him an annual interest of less than 4 percent, he decided to explore higher yielding alternatives.

Dr. Jones knew about the Hospital's new Planned Giving Program but had never explored how a gift to BUMCH could also meet his long-term financial needs. By opting for a charitable gift annuity, a plan that would benefit both himself and the Hospital, he received:

- ❖ A return of 7.3 percent, or \$730 annually, of which \$315 is tax free;
- ❖ a charitable income tax deduction of \$3,718.40, earned the year he made the gift;
- ❖ a rate of return that is guaranteed for the rest of his life,
- ❖ and the satisfaction of knowing that his gift benefitted the Leonard Jones Cancer Research Fund, the program of his choice.

*If you would like further information on how a charitable gift annuity could work for you, please complete and return the coupon below to Boston University Medical Center/The University Hospital, Development Office, 88 East Newton Street, Boston, MA 02118 or call 617/638-8943.*

I am interested in learning more about charitable gift annuities. Please send me personalized investment scenarios based on the following information, without any obligation on my part.

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## *Cancer Answers..... Pick up the phone and call us*

*Boston University Medical Center/The University Hospital has become the greater Boston area's source for free, confidential and expert cancer information; a telephone service that puts cancer*

*information at a caller's fingertips. Cancer HelpLink, the only resource of its kind in the region, is specifically designed for people who are interested in learning more about cancer and the cancer services available at Boston University Medical Center Hospital. Staffed by registered oncology nurses, Cancer HelpLink can provide callers with a total of 10,000 computer screens of current data on 40 different kinds of cancer. The Cancer HelpLink nurse, in addition to answering questions on a one-on-one basis, can refer concerned callers to Hospital physicians according to their specialty,*

*and recommend the most appropriate health care resource.*

*...The next time you have a question about cancer, don't forget to make the connection with BUMC Cancer HelpLink by calling:*

**1-800-524-8541**

