

Innovations: *Breast Cancer Program*

Giving New Meaning to Personalized Care

» *A woman facing breast cancer today might hope for personalized care delivered with sensitivity to her physical and emotional well-being. At Froedtert & The Medical College of Wisconsin, cancer specialists elevate “personalized” to a new level. “Personalized” also refers to the leading edge of medical science, where breast cancer treatment is customized to each individual. Innovations at Froedtert & The Medical College are expanding options for treatment, precisely tailoring therapy and offering effective cures or disease control.*



Mary Beth Gonyo, MD

“An individualized approach is critical, because breast cancer is not just one disease; it is many,” said John Charlson, MD, Medical College of Wisconsin medical oncologist. “Individualized here means care based on a patient’s history and the specific characteristics of her cancer.”

Diagnosis: The Front Lines

Radiologists use mammography to screen women for breast abnormalities and to investigate new findings detected on physical exams. Froedtert & The Medical College have

invested in all-digital mammography. “It gives us a much clearer picture,” said Mary Beth Gonyo, MD, radiologist and director of breast imaging. “We can detect subtle findings that were difficult to identify with film, especially in women with dense, glandular tissue.”

If a mammogram detects a new abnormality, a radiologist may recommend other mammogram views or ultrasound, and if indicated, will perform an image-guided core biopsy to obtain breast tissue for analysis. The minimally invasive core biopsy may confirm a diagnosis of cancer or reveal a benign finding.

Breast imaging specialists at Froedtert & The Medical College evaluate thousands of breast exams yearly, giving them the experience needed to understand various presentations of malignant and benign conditions. “We have a role in evaluating the extent of disease with ultrasound or MRI (magnetic resonance imaging), which helps surgical oncologists plan treatment,”

Dr. Gonyo said. The radiologist may also assist the surgeon by placing guide wires around or through a tumor to ensure the area of concern is removed. If a patient receives chemotherapy before surgery to shrink a tumor, radiologists monitor the tumor’s response with ultrasound and MRI. They are also part of a team that follows patients closely for signs of recurrence.

Once breast tissue is obtained through biopsy or surgical removal, a breast pathologist analyzes it to confirm the



Zainab Basir, MD

Breast Cancer Program Team

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diagnosis. “It is critical to identify the specific type of breast cancer and whether the tumor is invasive or in-situ,” said Zainab Basir, MD, Medical College of Wisconsin breast pathologist. “Sentinel lymph nodes are also examined at the time of surgery. If cancer has spread to the draining nodes, the surgeon removes all nodes in the same operation, preventing the need for a second procedure.” The pathology report (including details on markers such as estrogen, progesterone receptors and Her-2-neu FISH) is the basis for individualized treatment options considered at the weekly tumor board.



Amanda Kong, MD, MS

Surgery: Tailoring Options

Breast cancer patients benefit from a team approach that includes radiologists, surgical oncologists, plastic surgeons, radiation and medical oncologists and pathologists. “Once a week, our entire team reviews cases at tumor board,” said Amanda Kong, MD, MS, Medical College of Wisconsin surgical oncologist. “We carefully consider the type and stage of breast cancer, and quality of life goals before recommending treatment.”

For example, total removal of a breast (mastectomy) may be appropriate for some, but that’s no longer assumed. Breast-conserving surgery (lumpectomy) is another option. “For some women with early stage cancers, breast-conserving surgery followed by radiation is equally as effective as mastectomy at controlling cancer,” Dr. Kong said.

Breast surgeons at Froedtert & The Medical College are on the forefront of numerous surgical approaches:

- **Oncoplastic surgery:** Surgical oncologists and plastic surgeons collaborate in the same procedure to remove large tumors without mastectomy, then reshape remaining tissue to minimize deformities.
- **Sentinel lymph node biopsy (SLNB):** Instead of removing all lymph nodes, surgeons identify and remove a few, testing to see if the cancer has spread. SLNB can decrease the likelihood of lymphedema (painful arm swelling).
- **Skin-sparing mastectomy:** Surgical oncologists remove the entire breast through a small incision, preserving the skin overlying the breast. This technique allows for immediate reconstruction by a plastic surgeon.

Reconstructive Surgery: Rebuilding Confidence

“Breast cancer attacks more than a woman’s health; it threatens her sense of femininity,” said John Hijjawi, MD, Medical College of Wisconsin plastic surgeon and director, reconstructive breast surgery. “Our team treats the whole patient.”

Medical College of Wisconsin plastic surgeons work with surgical oncologists, often reconstructing the breast as part of the cancer operation. “The patient goes to sleep with a breast and wakes up with one,” Dr. Hijjawi said, “an approach that dramatically reduces psychological stress. About 90 percent of our mastectomy patients choose reconstruction. In our broad-based program, we’ll find a form of reconstruction to fit each patient.”

Among reconstructive surgeries available:

- **Deep inferior epigastric perforator (DIEP) flap:** Rebuilds the breast using a woman’s own abdominal tissue, without sacrificing abdominal muscles or nerves. Since the extra tissue is used in reconstruction, a tummy tuck is a side benefit. Froedtert & The Medical College were the first in the area to offer the DIEP flap, and train surgeons from across the country in the technique.
- **Implants filled with saline or silicone gel:** An important alternative for women who are not good candidates for reconstruction using their own tissue.
- **Reconstruction of the nipple and areola (darker skin surrounding the nipple)**

Radiation Oncology: Optimizing the Cure

Radiation oncology plays an important role in reducing the risk of breast cancer recurring or metastasizing. After lumpectomy or mastectomy, it helps attain optimal local cancer control and a higher cure rate in some patients. “With newer radiation methods, we individualize treatment to each patient,” said Julia White, MD, Medical College of Wisconsin radiation oncologist. Three dimensional conformal radiation therapy and intensity modulated radiation therapy are examples of advanced technologies that literally shape radiation to the tumor.



John Hijjawi, MD, Medical College of Wisconsin plastic surgeon, explaining breast reconstruction to a patient.

Treating the Whole Person

A Breast Cancer Hub: Care That Comes to the Patient

In many hospitals, a breast cancer patient visits multiple locations to see different specialists. In contrast, Froedtert & The Medical College built a model centered on the patient. Care is coordinated in one place — the Breast Care Center. Physicians are steps away from each other to maximize collaboration, and specially trained nurses follow patients throughout treatment. The Breast Care Center is accredited by the National Accreditation Program for Breast Centers, which recognizes facilities for offering the highest level of quality care in breast health.

The **Breast Cancer Program** at Froedtert & The Medical College offers comprehensive treatment and resources, including:

- **Team approach:** Multiple specialists work together to form individualized treatment plans
- **Clinical trials:** Additional advanced treatment options that may not be offered everywhere
- **Support:** Includes psychological services, nutritional counseling, genetic counseling, pain management and acupuncture
- **Rehabilitation:** Improves quality of life and independence in mobility, safety and daily activities after cancer treatment
- **One-stop setting:** Appointments, laboratory, pharmacy and support services all located in the Clinical Cancer Center

To learn more about our comprehensive program and team specializing in breast cancer, visit froedtert.com/breast. To schedule an appointment, call **866-680-0505**.

Cutting-edge technologies can now deliver precise, computer-controlled radiation based on a CT scan of the patient's anatomy. "We build a CT computer model that shows normal tissues — heart, lungs, and thyroid — that should be avoided," Dr. White said. "The model targets the highest possible radiation dose to the tumor, while minimizing radiation to healthy tissues. We also use respiratory gating to track the patient's breathing and synchronize radiation delivery with the chest's movement."

Medical Oncology: Saving Lives

Medical College of Wisconsin oncologists use information about the unique genetic material of breast cancer to tailor treatment to patients. "We use Oncotype in early stage estrogen receptor-positive breast cancer to determine the risk of recurrence, and whether the patient will benefit from chemotherapy," Dr. Charlson said. Oncotype DX™ profiles 21 genes to help provide this important guidance.

By identifying certain genes present at higher levels within tumor cells, oncologists ascertain not only how the tumor might behave, but what drugs might be beneficial in fighting the cancer. Low-risk breast cancers often do not require chemotherapy, and may be successfully treated with estrogen blockade. Identifying patients who have breast cancer with elevated levels of Her-2 means treatment will include targeted drugs that improve success rates.

If a woman's tumor is initially too large for lumpectomy, chemotherapy may expand her options. "When a patient is interested in breast-conserving surgery, chemotherapy to shrink the tumor before surgery may make lumpectomy more feasible," Dr. Charlson said.

"In later stage breast cancers, chemotherapy helps control metastatic or advanced breast cancer, while maintaining a high quality of life," Dr. Charlson said. "Advances are making breast cancer drugs increasingly effective and safe."



John Charlson, MD

Advanced Practice Nurses: Patient Advocates

The Breast Cancer Program includes advanced practice nurses who focus on the needs of women with breast cancer. They are knowledgeable about the latest research in breast cancer, and provide critical input into treatment planning. They act as advocates, help patients understand their alternatives, answer questions and help assure that care is well coordinated and appropriate for each individual.

Clinical Trials: Access to Advancements

Froedtert & The Medical College actively pursue clinical trials to advance treatment through national cooperative groups: Radiation Therapy Oncology Group, American College of Surgeons Oncology Group, National Surgical Adjuvant Breast and Bowel Project, and Eastern Cooperative Oncology Group. Our physicians also participate in investigator-initiated trials. More information is available at froedtert.com/clinicaltrials.