

# 20 top health breakthroughs for women

2007's biggest advances are changing the face and future of your health. Here's what you need to know—now

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Photography by Lisa Spindler


#### LET'S FACE IT.

We live in a time when a "Your Friends Make You Fat" story gets headlined and blogged 24-7 (no matter that it was just one study in a doctors' journal), while the recent discovery of two (two!) genes linked to multiple sclerosis (MS) rates nary a peep. That doesn't make us shallow (or even overweight), it just means we have to look a little harder for the latest medi-news that truly matters to women. And that's what we've done here: From acne advances to new ways to fight pain, these 20 breakthroughs will help you—no matter how much your friends weigh—live a longer, more healthful life. ➔➔

breast-cancer survivors) shows that a low-fat diet (a strict 15 percent of total calories) may reduce odds of a recurrence. In any case, sticking to low-fat, lean protein and loading up on vitamin-rich fruits and veggies can't hurt.

#### 10 • DIGESTIVE HEALTH

### A camera in a pill



For the millions who postpone colonoscopy screening due to embarrassment or expected discomfort, it may be time to take a chill pill. Or, more properly, a camera pill. Now, PillCam, the same minicam-in-a-capsule technology that's been used for esophagus and small intestine screening since 2003 has been adapted for use in the large intestine. Prior to PillCam testing, you prep the colon with laxatives the night before. Then you visit a doc's office to swallow the pill and start the exam. As the day and PillCam move on, thousands of images of your insides are beamed wirelessly to and stored in an external monitor for later review. The colon PillCam can't replace a standard colonoscopy; if it finds trouble, you'll still need a follow-up colonoscopy. But the pill-camera may well serve as a less-stressful way for countless patients to have extensive baseline colon exams—without having invasive equipment introduced into their backsides. Speaking of which, when it's all over, the \$450 device exits painlessly and is flushed away.

#### 11 • URINARY INCONTINENCE

### Stop the leak

Thanks to surgical and nonsurgical advances, this has been a big year for a big female problem: stress urinary incontinence (SUI), which afflicts up to 15 million women in the United States. In May, results from the largest-ever federally funded study of SUI surgery provided women with new information about surgical options. The study found that one of the two leading techniques—the fascial-sling method—was 25 percent more effective at stopping leakage completely than the Burch colposuspension procedure. Then came the announcement of a nonsurgical alternative, *Renessa*, which can be performed on an outpatient basis or in some OB-GYN offices. Here's how it works: Radio frequency heat waves are delivered via a urethral probe to affected areas of the urethra and adjoining muscles that have atrophied with age or as a result of childbirth or disease; the heat toughens tissue, making it stronger and better able to control urine flow, researchers report.

#### 12 • DIABETES

### Saying goodbye to needles

Insulin delivery has made great strides, going from needles to pens to patches to nose sprays—and now to gel.

In March, Phosphagenics, an Australian medical firm, announced it's moving ahead with a next-phase study of a *transdermal* (i.e., absorbed through the skin) insulin gel, which is said to be effective (so far) in getting necessary amounts of the drug into the bloodstreams of diabetic patients—and delivering it safely. There have long been problems with needles and injectors, especially among younger and older patients, and associated fears often hurt compliance. The Aussie firm's ultimate goal: to provide millions of diabetics who currently use needles or pen-jab devices with a patient-friendly alternative. In the meantime, they're making certain their experimental gel provides a proper insulin dose and stable blood-glucose levels.

#### 13 • BREAST CANCER

### Melting away metastases

It's not often that breast-cancer doctors take cues from docs who treat prostate cancer in men. But urologists have been using seed implants to treat prostate tumors for some 15 years—a method that's now being tried on advanced breast cancer. In an intriguing and ongoing study, Affaan Bangash, DO, a resident at Northwestern University, and Riad Salem, MD, an associate professor of radiology, oncology, and surgery there, have tested a new form of radioactive seed implants containing *microspheres* of radiation capable of killing breast-cancer tumors that had spread to the liver, but with fewer side effects than other treatments. In short, the experimental seeds, or brachytherapy, led to positive tumor response on PET [positron-emission tomography] scans in 63 percent of patients in the study, the research says. And while the study is far from complete, it offers a future option for breast-cancer patients who haven't responded as hoped, even after multiple chemotherapies.

#### 14 • PAIN

### Block it and stop it

Acute pain, like a sprained ankle or twisted knee, is something doctors—and patients—understand and treat pretty well. Chronic pain, as in arthritis, lower-back, or other long-term bone-and-joint problems? Not so much. That's because, after a while, bodies adjust to and refuse to “listen to” standard pain-relieving drugs like ibuprofen, naproxen, or even more serious opioids. And it's now thought that the brain and spinal cord become rewired after serious injury, so more than just the site of injury is affected. This is a big issue for the one in five Americans afflicted with chronic pain. But pain specialists have high hopes for two new high-tech, patient-controlled solutions: a pain-patch, called IONSYS, that delivers fentanyl (an analgesic) upon the push of a button; and a portable, iPod-like nerve-blocking “anesthetic pump” that's being

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