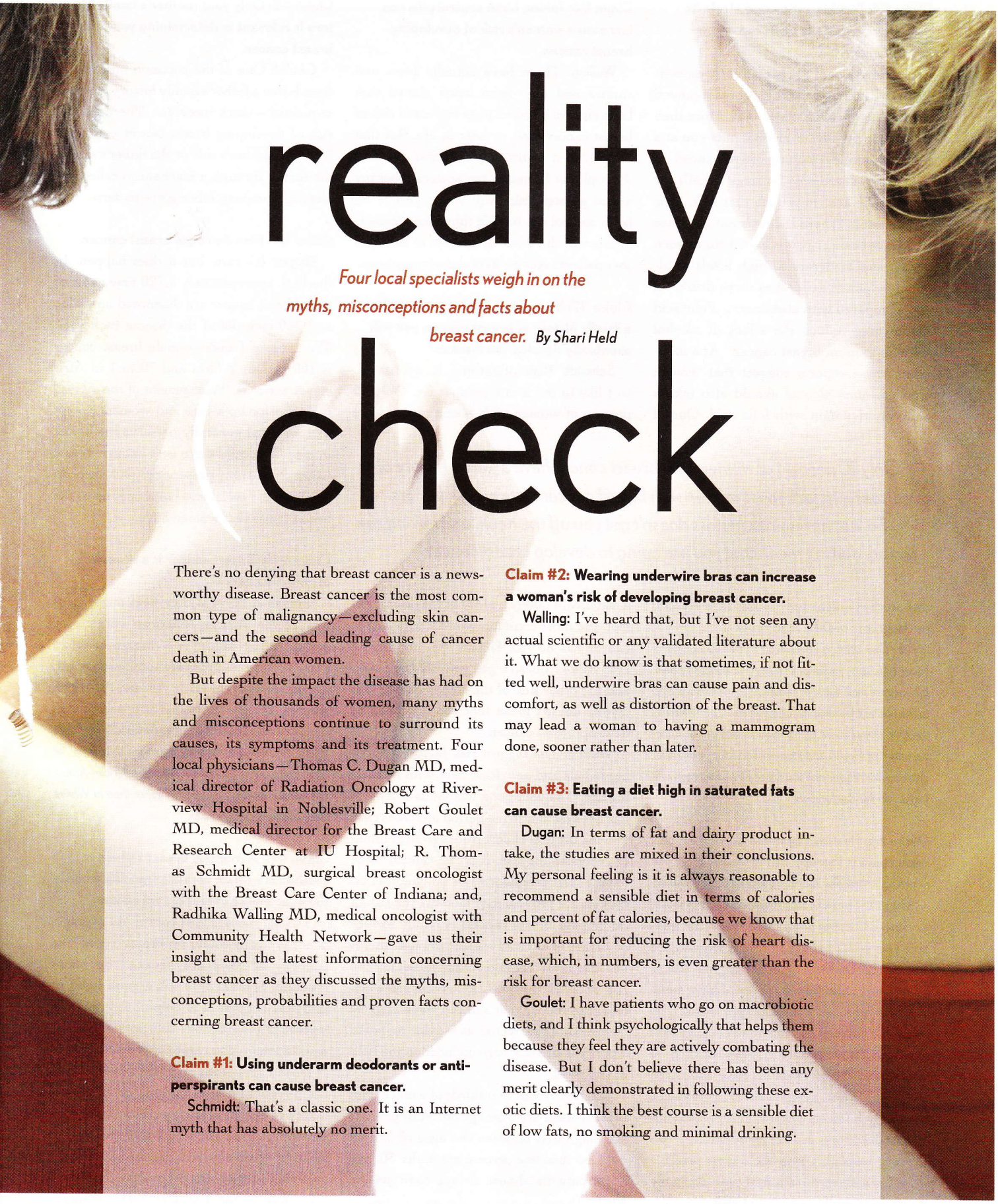

reality check

Four local specialists weigh in on the myths, misconceptions and facts about breast cancer. By Shari Held

There's no denying that breast cancer is a newsworthy disease. Breast cancer is the most common type of malignancy—excluding skin cancers—and the second leading cause of cancer death in American women.

But despite the impact the disease has had on the lives of thousands of women, many myths and misconceptions continue to surround its causes, its symptoms and its treatment. Four local physicians—Thomas C. Dugan MD, medical director of Radiation Oncology at Riverview Hospital in Noblesville; Robert Goulet MD, medical director for the Breast Care and Research Center at IU Hospital; R. Thomas Schmidt MD, surgical breast oncologist with the Breast Care Center of Indiana; and, Radhika Walling MD, medical oncologist with Community Health Network—gave us their insight and the latest information concerning breast cancer as they discussed the myths, misconceptions, probabilities and proven facts concerning breast cancer.

Claim #1: Using underarm deodorants or antiperspirants can cause breast cancer.

Schmidt: That's a classic one. It is an Internet myth that has absolutely no merit.

Claim #2: Wearing underwire bras can increase a woman's risk of developing breast cancer.

Walling: I've heard that, but I've not seen any actual scientific or any validated literature about it. What we do know is that sometimes, if not fitted well, underwire bras can cause pain and discomfort, as well as distortion of the breast. That may lead a woman to having a mammogram done, sooner rather than later.

Claim #3: Eating a diet high in saturated fats can cause breast cancer.

Dugan: In terms of fat and dairy product intake, the studies are mixed in their conclusions. My personal feeling is it is always reasonable to recommend a sensible diet in terms of calories and percent of fat calories, because we know that is important for reducing the risk of heart disease, which, in numbers, is even greater than the risk for breast cancer.

Goulet: I have patients who go on macrobiotic diets, and I think psychologically that helps them because they feel they are actively combating the disease. But I don't believe there has been any merit clearly demonstrated in following these exotic diets. I think the best course is a sensible diet of low fats, no smoking and minimal drinking.

Claim #4: Drinking wine and alcoholic beverages on a daily basis can cause breast cancer.

Goulet: Alcohol has been clearly demonstrated to increase the risk of breast cancer. There's no question about that. More than one ounce per day of alcohol puts you at a higher risk of developing breast cancer.

Dugan: There may be some benefit for taking folic acid to reduce that risk. One study states: "There is consistent evidence that breast cancer risk is higher for women consuming moderate to high levels of alcohol, which is defined as three drinks* a day, compared with abstainers…Folic acid intake may reduce the effect of alcohol consumption on breast cancer." At a minimum, these reports suggest that women who consume alcohol should also take a daily multivitamin with folic acid. One of the studies suggested taking at least 300 micrograms of folic acid daily.

**Note: One drink is considered to be: 1.5 ounces of liquor (gin, rum, vodka or whiskey), 12 ounces of beer, 8 ounces of malt liquor or 5 ounces of wine. According to the Dietary Guidelines for Americans, published by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services, "moderate" drinking constitutes one drink per day for women and two drinks per day for men.*

Claim #5: Post-menopausal hormone replacement therapy can increase a woman's risk for developing breast cancer.

Dugan: There is no question that it is associated, but it is not a huge risk—the relative risk is 1.24 times that of a woman not taking the therapy. And the higher risk is associated with long-term use. I have some patients who were menopausal in the '70s and were placed on hormone replacement therapy and were never taken off of it 30 years later. These women have increased risk. But some symptoms of menopause are really hard on women, and post-menopausal hormone replacement therapy can be very helpful. Using the lowest possible dose for a short duration of time probably won't increase breast cancer risk.

Claim #6: Taking birth control pills can increase a woman's risk of developing breast cancer.

Walling: There have actually been two studies and they have never shown that birth control is linked to an increased risk of breast cancer now, or later in life. But that actually is a common perception, because if people on hormone replacement therapy are at greater risk, why would people on birth control not be. We think the reason is because of the minimal amount of estrogen that patients receive in oral contraceptives.

Claim #7: If you have a risk factor, such as a family history of breast cancer, you will eventually develop the disease.

Schmidt: Risk oftentimes is overstated, so I like to put it into perspective. Only 10 percent of women with breast cancer have a significant family history of the disease. In fact, the most common woman with breast cancer has no risk factors. So, not having risk factors doesn't get you off the hook, and the other side of the coin is having risk factors doesn't mean that you are going to develop breast cancer.

"Only 10 percent of women with breast cancer have a family history of the disease. In fact, most women with breast cancer have no risk factors. So, not having risk factors doesn't get you off the hook, and having risk factors doesn't mean that you are going to develop breast cancer."

Walling: The biggest risk factors are being female and age. Risk rises with increasing age. The younger a woman is when she has her first menstrual period increases risk. Having the first child before age 25 definitely decreases the risk of breast cancer, while having later pregnancies or no children, although not proven, may increase the risk of developing breast cancer. A family history of breast or ovarian cancer, though this is not the most common risk, increases the risk of breast cancer. Also, having had a prior breast biopsy that showed some atypical changes is a risk factor, as is prior radiation where the breasts were included in the field of radiation.

Schmidt: About two-thirds of women with breast cancer are over age 50. Most patients are diagnosed between the ages of 55 and 60. Less than one percent are under 30, and those patients almost always have genetic issues. Breast cancer is a disease of aging.

Claim #8: Only your mother's family history is relevant in determining your risk for breast cancer.

Goulet: One of the common misconceptions is that a father's family history is inconsequential—that's incorrect. The inherited risk of developing breast cancer can come from the mother's side or the father's side of the family through a mechanism called autosomal dominant inheritance pattern.

Claim #9: Men don't get breast cancer.

Dugan: It's rare, but it does happen. In the U.S. approximately 1,720 new cases of male breast cancer are diagnosed annually, and 460 men die of the disease each year. The ratio of female-to-male breast cancer is 100 to 1 in Whites and 70 to 1 in African-Americans. Management of the disease is similar for both men and women, except that we don't generally preserve the breast in men. Typically there isn't enough breast tissue to warrant preserving, plus men do not have the social and emotional tie to the breast tissue that women have.

Claim #10: Breast cancer is a disease of white women.

Goulet: A fairly widely held misconception in the African-American community is that breast cancer is a disease of white women. That is obviously totally incorrect. The incidence is lower in African-American women, but the mortality rate is higher in the African-American population.*

**Note: According to recently published data from the American Cancer Society, death rates in African-American women remain 37 percent higher than in Whites, despite lower incidence rates.*

Claim #11: A monthly breast self-exam combined with an annual physician exam is the best way to detect breast cancer.

Walling: Early breast cancer, on average, is not typically found on breast exam. The majority of cases are detected by mammogram. Self-exam is still a good habit to practice, because it is helpful to know the texture of your breasts so if something unusual appears you can have it evaluated.

Dugan: Diagnosis requires a biopsy. We use physical findings (a lump or an abnormality of the skin, such as discoloration or dimpling, or an abnormality of the nipple, such as bleeding) and mammography results (a change from the previous year) to select women for consideration for biopsy.

Claim #12: There's nothing women at high risk can do to reduce their risk.

Schmidt: We do have risk-reductive strategies for women at high risk. One would be hormonal treatment with drugs like tamoxifen or Evista. Tamoxifen, the classic drug, reduces the risk of developing breast cancer in these groups by about 50 percent. For extremely high risk patients who are BRAC-1 or BRAC-2 gene carriers, we can remove both breasts and a plastic surgeon can rebuild both breasts at the same time. It is impossible to say that all the breast tissue has been taken, but this procedure is greater than 90-percent risk reductive.

Claim #13: Undergoing surgery to remove a tumor makes cancer spread throughout the body.

Walling: There is that chance with biopsies for ovarian cancer, so they just go straight into surgery to remove an ovarian mass. We do not think this is true of breast cancer, but it needs to be investigated. Typically cancer has to grow and invade into a blood vessel or into a lymphatic channel in order for it to spread.

Goulet: The idea of cancer spreading from the tumor being exposed to air during surgery is a fairly common misconception. But there may be a phenomenon where the remaining tumor cells receive a message that results in activation of other areas of tumors. The research on this is inconclusive, but it is an area that is being hotly investigated right now.

Claim #14: Once diagnosed with breast cancer, you must have surgery immediately—time is of the essence.

Goulet: Not even in the most extreme cases of inflammatory breast cancer should there be a rush to surgery. The fact of the matter is that most women presenting with breast cancer have had their disease for approximately 10 years. So waiting one or two weeks, or even a month, will not change the prognosis. Patients should take their time and reflect on what they are doing, gather all the information they need, get a second opinion if there is any doubt about the validity of the information they are receiving or the system they are working in and proceed in the most deliberate fashion possible. Because the decisions they make now will impact the remainder of their lives.

Claim #15: Lumpectomies (conservative surgery or partial mastectomies) have replaced mastectomies as the surgery of choice today.

Goulet: Lumpectomy with radiation therapy is equivalent to mastectomy with respect to the risk of the tumor recurring in the breast, the risk of the cancer metastasizing to some other place in the body and the overall chances of survival. So women are not compromising on their care, and in fact, they are not gaining anything by sacrificing their breast to a mastectomy. They will have identical outcomes to women who have breast removal.

Dugan: I would not say it has replaced mastectomy; it complements mastectomy. Not every patient is a candidate for breast preservation with lumpectomy and radiation. Additionally it is never wrong for a patient to choose mastectomy. Some women would rather just have surgery and move on. Conventional radiation for breast cancer as it has developed in the US and Europe is a five-day-a-week process for a period of five-and-a-half to six-and-a-half weeks. Some women prefer not to make that travel.

Claim #16: The side effects of post-operative radiation are very difficult for breast cancer patients.

Dugan: The main role of radiation in breast cancer is to take care of microscopic cancer that might remain after lumpectomy surgery. Side effects of radiation are, for the most part, specific to the area of the body that is treated. So patients undergoing radiation of the breast don't have hair loss, diarrhea, nausea or low blood counts. During treatment they typically have only two side effects: a mild fatigue and a skin reaction that looks like mild to moderate sunburn. Potential late effects are essentially negligible. Modern treatment planning using CT data (computed tomography imaging) helps limit exposure of the underlying lung and heart to radiation, which is important for long-term wellness of the patient.

Claim #17: Treatment of breast cancer is similar for everyone.

Schmidt: Breast cancer treatment should be personalized. There are a number of factors that go into a treatment plan, and it's not just factors related to the tumor itself. It requires knowing how the woman views the situation, and then matching the treatment in the context of who she is as a person—because the worst part of breast cancer isn't the treatment, it's afterwards. And we want people to go on with their lives and get beyond the breast cancer.

Claim #18: If you are cancer-free after five years, you are cured.

Walling: Typically we say that a patient is "cured" but still at an increased risk for breast cancer, although the risk of relapse is minimal. The highest rate of recurrence is within the first two years, and after that there's a moderate risk for five years. If a patient hasn't had a recurrence within five years, the chances of recurrence are minimal, but still present. We have seen 10 and 20 year recurrences. They are rare, but they do occur. And patients can develop a new primary breast cancer.

Goulet: Unfortunately, this is a myth. There are no magic numbers. That's one of the frustrations of breast cancer. Unlike some other cancers, where you have a five-year disease survival and then you can consider yourself cured, breast cancer is not like that. That is the basis for recommending follow-up for a patient's lifetime. •