What doctors wish patients knew about breast-cancer prevention

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It’s natural for women to worry about breast cancer, especially since many people know someone who was touched by the disease. While there is no foolproof way to prevent breast cancer, there are things you can do to lower your risk. Some factors you can’t change, but knowing what can help is key to lowering your risk of breast cancer.

Breast cancer is the second most common cancer among women in the U.S.—some types of skin cancer are the most common. Between 1989 and 2020, breast cancer death rates decreased by 43%, but racial and ethnic inequities still exist. While breast cancer incidence is lower among Black women than white women, the death rate is 40% higher among Black women than white women, according to the American Cancer Society. That is because about one in five Black women with breast cancer have triple-negative breast cancer—more than any other racial or ethnic group. Meanwhile, Asian American and Pacific Islanders have the lowest death rate from breast cancer while Native Americans and Alaska Natives have the lowest rates of developing breast cancer. And while rare, men can get breast cancer too.

The AMA’s What Doctors Wish Patients Knew™ series provides physicians with a platform to share what they want patients to understand about today’s health care headlines.

In this installment, Jill Jin, MD, an internist at Northwestern Medicine and clinical assistant professor of medicine at Northwestern University Feinberg School of Medicine, took time to discuss what patients need to know about what to do to reduce their risk of breast cancer. She is also a senior physician adviser for the AMA and an associate editor for JAMA®.

Know the risk factors

“While risk factors for breast cancer are broad, we think primarily about age—around the age of menopause and after menopause is when breast cancer risk goes up in women,” said Dr. Jin. “Family history, of course, is another big one. That includes genetic mutations that we know of such as BRCA1
and \textit{BRCA2}.

“There’s also this whole concept of estrogen exposure, which can be both endogenous—within the body or how much your body produces—versus exogenous, from medications” she said. “Then other things like alcohol and smoking are thought to be associated somewhat with breast cancer as well.”

**Start screening between 40 and 50**

“Overall, the recommended age to start screening for breast cancer in average-risk women would be anywhere from 40 to 50 years old,” said Dr. Jin. “It is important to convey to patients that most professional societies do recommend later than 40, either 45 or 50, as the age to start screening. But most physicians are still starting on the earlier end of this spectrum because it can be a tough sell for patients to say, wait until 50 years old when, to be honest, most people around them are probably getting screened earlier.

“Almost everyone knows somebody these days who has had breast cancer, whether it’s a friend or a family member, and when you have that personal connection it’s scary,” she added. “That’s why I usually tell women who are at average risk—who don’t have family history of breast cancer—that I am comfortable waiting until 45 years old to start screening.”

“If they do have a family history of breast cancer or other risk factors, we certainly can and should start screening earlier,” Dr. Jin said. “It’s very individualized at the end of the day.”

**Different screening tests are available**

“There are several different screening modalities,” said Dr. Jin, noting that “a mammogram is the most common one. Other methods of screening include ultrasounds, as well as a breast magnetic resonance imaging.”

“But for most people, we start with mammograms,” she said.

**Earlier screening isn’t always better**

“It always begins with getting to know the patient, asking about their history and their lifestyle—it’s definitely an individualized risk assessment first,” said Dr. Jin. “And if there is nothing that suggests they are at higher risk than average, then you can have a discussion with patients about potentially
waiting to start screening.

“It comes down to the benefits versus the harms of screening,” she added, noting “the younger you start screening, the more lives you will save because you will catch more cancers at earlier stages, especially the more aggressive ones.”

“But on the flip side, the younger people are, the more you pick up things that are not cancer, which is called a ‘false positive’ finding. Younger women have denser breast tissue, and when breast tissue is dense, it is very hard to differentiate normal tissue from something that may look like cancer,” Dr. Jin explained. “And then you go down this whole path of follow-up testing which includes additional mammograms and sometimes biopsy, which very often ends up being an unnecessary biopsy because everything will turn out normal.

“This causes a lot of anxiety. It upends patients’ lives for a couple months while this whole process is going on, and that amount of anxiety affects many other parts of patients’ lives—it is not trivial,” she added. “And then you do it all over again the next year. The younger you start, the more the potential harms of these false positives start to outweigh the potential benefit of earlier diagnosis.”

Maintain a healthy lifestyle

“For all women—really for everyone—it is important to maintain a healthy lifestyle,” said Dr. Jin. That means “eating a balanced diet, not drinking too much alcohol, not smoking, maintaining regular physical activity and a normal body mass index.

“All of those things are likely helpful for prevention of not just breast cancer, but other cancers as well, along with cardiovascular disease—a lot of things,” she added.

There are medications to reduce risk

“Chemoprevention, or the use of medications, is another option to reduce breast-cancer risk,” said Dr. Jin. “For chemoprevention, there are two classes of medications that are used. One is called selective estrogen receptor modulators, or SERMs.

“Tamoxifen is probably the most common one that is used. SERMs medications block the effects of estrogen in the breast,” she added. “Another class is called aromatase inhibitors. Those are usually used in older women after menopause and stop other hormones in the body from becoming estrogen.”
“However, both have other side effects. While tamoxifen blocks the effects of estrogen in breast tissue, it can actually enhance estrogen effects in other parts of the body, so we do worry about blood clots as well as uterine cancer,” said Dr. Jin. “And then aromatase inhibitors can cause other side effects related to low estrogen such as hot flashes, bone pain, decreased bone density, and increased risk of osteoporosis and fractures.”

“That’s why we don’t use these medications in everyone to decrease breast cancer risk, and reserve them for high-risk women only. Again, as with every decision in medicine, we want to make sure the balance of potential benefits versus harms is in favor of benefits,” she said.

Surgical prevention is also an option

“The other kind of prevention would be surgical prevention,” said Dr. Jin. “This is also done for women who are high risk, most commonly because of the BRCA gene mutation.”

“People who have a known BRCA gene mutation, which puts them at an increased risk for both breast and ovarian cancer, are candidates for surgery to remove the breasts. That’s called prophylactic mastectomy,” she said. “They also may be candidates for surgery to remove the ovaries to decrease the risk of ovarian cancer as well.”

Test for the BRCA gene mutation

“There are calculators that can be used to calculate whether someone, based on their family history and ethnicity, should get genetic testing for the BRCA gene mutation, which is a blood test” said Dr. Jin. “If you have a first-degree family member—such as your mom or sibling—who has breast cancer and is known to have BRCA, then you should get tested for it.

“If you just have a family history of breast cancer with unknown BRCA status, that’s when the calculators come into play,” she added, noting “they look at how many first-degree and second-degree relatives, whether you are of Ashkenazi Jewish descent, and certain other risk factors to decide whether you should get the genetic testing.”

Breastfeeding may reduce risk

While there are no clinical trials on this topic, “there is observational data that does suggest that breastfeeding is protective against breast cancer,” said Dr. Jin. The same goes for “having children
versus not having children; pregnancy does seem to be protective as well.

“We’re not saying go get pregnant and breastfeed to reduce your risk of having breast cancer—it’s not practical,” she added. “But it does seem to be an association.”

Birth control is OK to take

This is also “somewhat controversial, but overall, the link between birth control and breast cancer is very small to none,” Dr. Jin said. “When I talk with my patients about this, I share that using birth control pills most likely does not increase the risk of breast cancer in a clinically significant way.

“Furthermore, this very small potential increase in risk is limited to the time that you’re actually taking birth-control pills,” she said. “So, it’s not a permanent effect. It’s temporary.”

Be cautious with self-breast exams

“There has not been any good evidence to show that self-screening has any overall benefit in mortality,” said Dr. Jin. “Breasts are just lumpy to begin with and a lot of people end up feeling “lumps” that just end up being normal breast tissue.

“And you may end up, again, going down that path of all the imaging and the biopsies and in the end, it is nothing,” she added. “So, self exams are not recommended by clinical guidelines.”

“However, some people are going to be wanting to do that anyways and that is fine. If someone really wants to stay on top of their body, I will explain that breasts can feel lumpy or bumpy, and what they are looking for is a change from baseline. At the end of the day, you still know your own breasts and your own body the best,” said Dr. Jin. “So, if you feel something that is different, that you have not felt before, then you should let me know and we can decide at that point what to do,”

“If they are in the office with me, I am happy to do a quick exam of the breast and tell them this is what your normal breast tissue feels like, don’t be alarmed if you feel this or if you feel this. It is just normal.”

Don’t hesitate to talk to your doctor

“While screening is recommended to start between 40 and 50 years old, if at any point you do notice something like a lump or you see something weird on the skin or if you have pain or any symptoms that are different than normal, that takes you out of the typical screening category,” she emphasized.
“As with all cancer screening, when a symptom is detected that is different, and you should never hesitate to bring that up to your doctor.