Chances are that breast cancer will someday affect you or someone you love. Dr. Naomi Ko, an oncologist specializing in breast cancer at Boston Medical Center, finds that many women don’t realize how incredibly common breast cancer is— in reality, the disease affects one in eight women in the United States, according to the American Cancer Society (ACS).

By knowing the risk factors and practicing early detection, women can be their own advocates. Appropriate early detection is informed by the risk factors for each individual, said Dr. Huma Q. Rana, clinical director of cancer genetics and prevention at Dana-Farber Cancer Institute.

“While population level or average risk screening recommendations apply to most people, there is increasing recognition that one size doesn’t fit all. The bottom line is that screening and early detection mean different things for different families and should be based on more personalized risk factors.”

Today, the mammogram is the most frequently used detection tool. Current ACS guidelines recommend that women at average risk for breast cancer start annual screening with mammograms at age 45, with the screening optional for women ages 40 to 44. At age 55, women can transition to mammograms every other year if they and their provider choose.

These guidelines are just a starting point, however. Dr. Tracy Battaglia, a practicing internist and breast health specialist at Boston Medical Center and Boston University School of Medicine, recommends people have a conversation about risk factors for all diseases during their routine healthcare visit. If their primary care provider feels they are at increased risk of breast cancer—for example, due to a hereditary component—he or she may recommend genetic testing or potentially early or additional screening tests.

Of course, no screening is perfect, including the mammogram, despite the fact that it is a well-studied test, said Battaglia. She explained breast density, age, type of mammography, and the facility doing the exam are all factors that could affect the results. Overall, mammography will detect about 85 percent of breast cancers, according to the ACS.

And while the ACS no longer recommends adhering to a self-examination schedule, it does urge women to “be aware of how their breasts normally look and feel and to report any changes to a health care provider right away.”

You have
to be your own self-advocate should you feel something different,” advised Ko.

In fact, it was a self-exam that alerted Battaglia to what would eventually be her own breast cancer diagnosis. The early-stage, but aggressive, tumor had developed between her normal screenings, and fortunately was caught in time for successful treatment.

**Relevant risk factors**

Since risk factors impact your recommended screening plan, it’s important to know what to watch for. Here is what to consider.

**Uncontrollable risk factors**

The top risk factors are those we can’t control: age, gender, race, and family history. If a woman has close female relatives, like a mother and sister who have breast cancer, then her risk is higher than average and more intense screening (more often or including breast MRI) may be recommended.

Paternal family history also counts; remember half of your genes are inherited from your father, so be sure to collect information on your paternal aunts, uncles and grandparents, advised Rana.

There are different types of family-related breast cancer. “Familial breast cancer simply means a clustering of breast cancer that isn’t explained by a mutation in a certain gene,” said Rana. By contrast, inherited, or genetic, breast cancer is related to a single gene mutation which confers an increased risk of breast cancer; for example, BRCA1 or BRCA2.

Finally, reproductive history can make someone more susceptible to breast cancer, specifically if they started their period at an early age and never had children, or had their first child after age 30.

**Controllable risk factors**

Then there are the risk factors people do have some control over. Being overweight is a top risk factor that can be mitigated with lifestyle changes. “We have learned a lot about obesity and the links to cancers, and therefore we are helping encourage women to maintain a healthy weight,” said Ko. Losing weight is key to preventing multiple conditions, from diabetes to cardiovascular issues.

A sedentary lifestyle can also be a risk factor. “There is emerging data that suggests women who are leaner and exercise more, independent of their weight, are less likely to develop breast cancer, said Dr. Jennifer Ligibel, a senior physician in breast oncology at the Dana-Farber Cancer Institute who leads the Breast Cancer Weight Loss (BWEL) study. This randomized trial is evaluating the effect of a weight loss program on cancer recurrence in 3,136 overweight and obese women with stage II to III breast cancer. The goal of the study is to see if patients who lose weight after they’ve already been diagnosed can improve their odds.

“The rationale is that women who are heavier when they are diagnosed have a higher risk of cancer recurrence and mortality, compared with women with similar characteristics who are leaner,” she said.

As Ligibel pointed out, most people correctly link smoking with cancer when considering lifestyle-related prevention strategies, but fewer are aware of the role of obesity and inactivity in developing breast and other cancers. And, she added, while diet can be a complex (and sometimes controversial) topic, those with healthy diets generally seem to do better.

Finally, alcohol intake appears to play a role in breast cancer susceptibility. “The more you drink, the more your risk increases,” Ko said, adding that she regularly counsels women around cutting back. “While it’s not realistic for some people to abstain, it’s important to have a discussion about this as a risk factor.”

The bottom line, Battaglia noted, is that, screening tests aside, everything you’ve ever been taught about living a healthy lifestyle and reducing your risk for all diseases also reduces your risk of developing breast cancer.

While screening guidelines continue to evolve, the good news is that new options are on the horizon, said Rana. She points to The WISDOM Study, which is looking into how to better personalize breast cancer screening and “ending the confusion about when to start and how often to have a mammogram.”

Study participants are supported by the network platform, Mammosphere, which allows women to electronically request their breast imaging records from doctors, store them on a secure and HIPAA-compliant platform, and share them with their care team members and specialists. Membership in Mammosphere is free to participants who sign up in October.

“Clinicians rely on prior breast health records to compare and identify changes in each woman’s unique breast tissue over time, helping to catch cancers earlier, before they have spread and while they are easier to treat,” said Crisitn Gardner, director of consumer products and markets at Boston-based Life Image, creator of Mammosphere. “Prior records like mammograms, though vital, have historically been a burden for medical teams and patients to gather. Mammosphere gives women the power to compile their breast health history, including diagnostic images, digitally and in one place to help ensure those records are at her fingertips and can be easily shared with her clinical team.”

“Knowing the right kind of early detection is complicated, but advances are being made every day,” said Rana.