

Breast Awareness and Primary Prevention of Breast Cancer

Key Messages

- ※ Every woman should be breast aware and familiar with the normal look and feel of her breasts at all time. If notice unusual changes in the breasts (such as breast lump; a change in the size or shape of the breast; a change in skin texture of the breast or nipple; rash around, in-drawing of, or discharge from the nipple; new and persistent discomfort or pain in the breast or armpit; a new lump or thickening in the armpit), she should see a doctor as soon as possible.
- ※ Breast cancer is the most common cancer affecting local women. In 2018, there were 4 618 newly diagnosed cases of invasive breast cancer in women, of which over 70% of the cases were diagnosed at an early stage. While 55.3% of newly diagnosed cases of invasive breast cancer occurred in women aged 45–64, women aged 65–69 had the highest incidence rate.
- ※ A recent large-scale study conducted by The University of Hong Kong found that positive family history of breast cancer among first-degree relatives, prior benign breast disease diagnosis, nulliparous or older age at first live birth, younger age at menarche, overweight and obesity, as well as lack of physical activity was associated with an increased risk of breast cancer development among local Chinese women.
- ※ To ensure breast health and reduce the risk of developing breast cancer, on top of being breast aware, women are urged to adopt a healthy lifestyle that includes having a balanced diet; being physically active; maintaining an optimal body weight and waist circumference; refrain from alcohol drinking; breastfeeding each child for longer duration.
- ※ For more information on breast cancer prevention, please visit Cancer Online Resource Hub at www.cancer.gov.hk.

Breast Awareness and Primary Prevention of Breast Cancer

Every woman should be breast aware at all time. That means becoming familiar with the normal look and feel of her breasts, so that she can quickly pick up any unusual breast changes and report to doctor without delay. Knowing ways to keep breasts healthy and reduce breast cancer risk is equally important.

About Breasts

Female breasts are made up of lobes that are further divided into a number of smaller lobules containing milk-producing glandular tissues and ducts along which milk travels to the nipple (ready for breastfeeding). Between milk glands and milk ducts, fatty and fibrous tissues fill the spaces that give the breasts their size and shape. Breasts also contain blood vessels, lymph glands and nerves. Throughout the course of life, female breasts are subject to hormonal changes associated with menstrual cycle and menopause. During child-bearing years, breasts may become enlarged, tender and lumpy shortly prior to a menstrual period but return to normal once the period is over. After menopause, decline in estrogen levels causes shrinkage of the milk glands and milk ducts. As a result, breast tissue becomes less dense and feels softer with more fatty tissue.

Unusual Breast Changes to Watch Out

Women are encouraged to get into the habit of looking at their breasts, touching them and feeling for any unusual changes during daily activities, such as taking shower, dressing and putting on body lotion. Warning symptoms to watch out include:

- breast lump;
- a change in the size or shape of the breast;
- a change in skin texture of the breast or nipple (e.g. red, scaly, thickened or “orange-skin” appearance);

- rash around, in-drawing of, or discharge from the nipple;
- new and persistent discomfort or pain in the breast or armpit;
- a new lump or thickening in the armpit.

Of note, these symptoms can be caused by benign breast conditions (such as breast cyst, inflammation and fibroadenoma) or cancer of the breast. Women should visit a doctor promptly for proper investigation and diagnosis if suspicious symptom appears. While many unusual breast changes are related to non-malignant causes, certain types of benign breast conditions (e.g. atypical ductal hyperplasia) can increase the risk of breast cancer in the future that doctor may recommend treatment and strategies for reducing the risk. If it is cancer, the earlier cancer is found and diagnosed, the better treatment outcome and better survival rate may be.

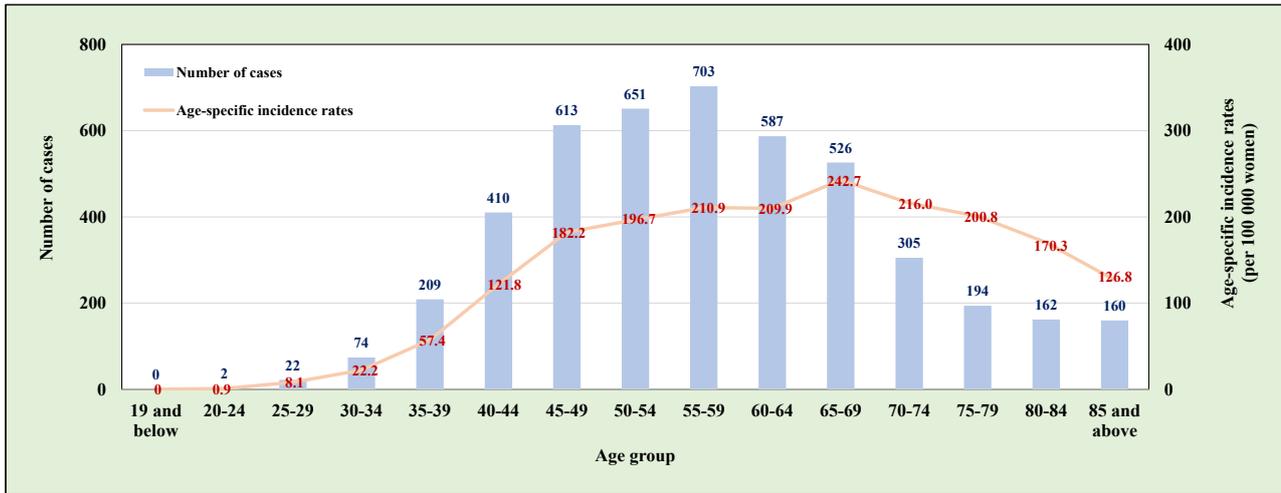
Breast Cancer Facts

Breast cancer is the most commonly diagnosed malignancy and the leading cause of cancer death among women globally. The most common type of breast cancer is invasive ductal carcinoma (that starts in the milk duct and spreads beyond the duct into other parts of breast tissue) which makes up about 70% of all breast cancers, followed by invasive lobular carcinoma (that occurs in the breast lobules and invades surrounding breast tissues) which accounts for about 15–20% of all breast cancers.¹ Through blood vessels and lymph vessels, breast cancer can spread outside the breast to other body sites, such as the lungs, bones, liver and brain. In 2018, there were an estimated 2.1 million new cases of breast cancer and 627 000 deaths from breast cancer globally.²

In Hong Kong, breast cancer has become the most common cancer affecting local women since the early 1990's. The Hong Kong Cancer Registry estimates that one in 14 women in Hong Kong would develop breast cancer in her lifetime (before age 75). In 2018, there were 4 618 newly diagnosed cases

of invasive breast cancer in women. The median age at diagnosis was 57 years. As shown in Figure 1, 55.3% of newly diagnosed cases of invasive breast cancer occurred in women aged 45–64, while women aged 65–69 had the highest incidence rate at 242.7 per 100 000 women.³

Figure 1: Number of cases and age-specific incidence rates of breast cancer by age group

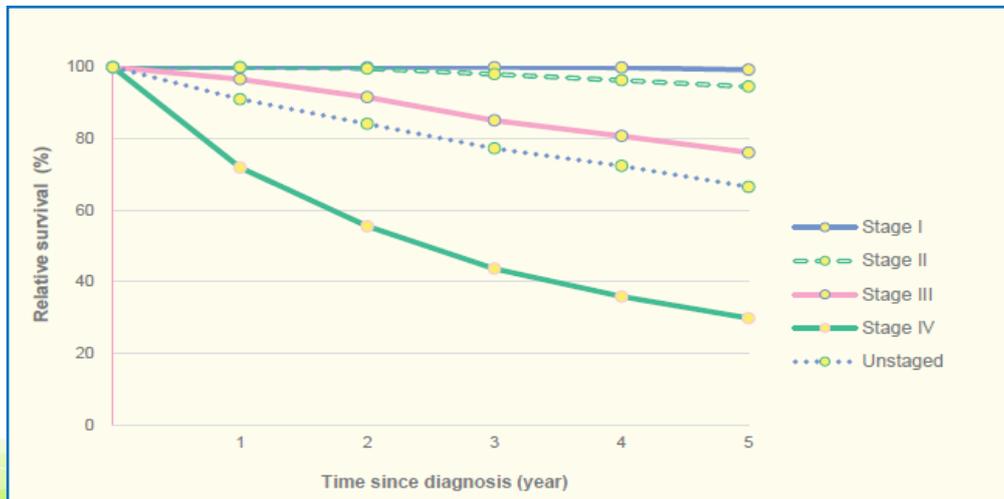


Source: Hong Kong Cancer Registry, Hospital Authority.

Stage at diagnosis is one of the most important factors in predicting breast cancer survival, with survival time at all years after diagnosis decreasing as stage increases. Among 4 618 newly diagnosed breast cancer cases in 2018, over 70% of the cases were diagnosed at an early stage (56.3% for Stage I; 14.2% for Stage II).³ According to Hong Kong's first report of stage-specific survival of breast cancer released by the Hong Kong Cancer Registry in

October 2020, the 5-year relative survival rate for Stage I breast cancer was 99.3%. As stage at diagnosis increased, the corresponding survival rates decreased progressively to 94.6% for Stage II, 76.2% for Stage III, and 29.8% for Stage IV (Figure 2).⁴ These data demonstrated that the earlier breast cancer is detected and diagnosed, the sooner patients can initiate treatment and the higher the survival rate is.

Figure 2: One- to five-year relative survival rates by stages of diagnosis



Source: Hong Kong Cancer Registry, Hospital Authority.

Enhancing Breast Health and Primary Prevention of Breast Cancer

In terms of risk, there are a number of modifiable and non-modifiable factors affecting women's risk of developing breast cancer. To identify significant factors and assess breast cancer risk among local Chinese women, the Research Office of Food and Health Bureau commissioned The University of Hong Kong to conduct a case-control study with 3 501 cases (patients with breast cancer and ductal carcinoma in situ) and 3 610 controls (women without any cancer history prior to recruitment). In addition to age-related risk, results showed that positive family history of breast cancer among first-degree relatives, prior benign breast disease diagnosis, nulliparous or older age at first live birth, younger age at menarche, overweight and obesity (with a body mass index (BMI) >23 kg/m²), as well as lack of physical activity were associated with an increased risk of breast cancer development (Table 1).⁵

Breast cancer risk can potentially be reduced by adopting a healthy lifestyle. A prospective study comprised over 161 800 women aged 50–79 in the United States observed that those with the healthiest lifestyle (characterised by consuming a healthy diet, high physical activity level, avoidance of smoking, no alcohol consumption, and having a healthy BMI) had an overall 30% reduced risk of developing breast cancer compared to those with the most unhealthy lifestyle.⁶

Table 1: Relative risk of risk factor for breast cancer development among local women

Risk Factors	Relative Risk *
1 Family history of breast cancer among first degree relatives	2.0
2 Prior benign breast disease diagnosis	1.6
3 Nulliparous	1.6
4 Age at first live birth (≥30 years)	1.5
5 Body mass index (> 23 kg/m ²)	1.4
6 Age at menarche (≤11 years)	1.2
7 Lack of physical activity (Physical activity refers to exercising intensively such as lifting heavy objects, cardiovascular exercise and riding fast on bicycle at least once a week on average in the last 10 years)	1.1

Note: * The larger the number of the relative risk, the higher the risk of developing breast cancer.

Source: Hong Kong Breast Cancer Study.

On top of being breast aware, women are urged to adopt healthy lifestyle —



Have a balanced diet — What individuals eat or avoid to eat can have a significant effect on their health. For optimal health, members of the public are urged to follow the principles of the Healthy Eating Food Pyramid that include eating adequate amount of fruit, vegetables and whole grains per day and consuming little fat, salt and sugar.⁷ Besides, members of the public should avoid processed meat which is carcinogenic to humans.⁸



Be physically active — Regular exercise reduces the risk of breast cancer.⁹ For substantial health benefit, the World Health Organization recommends adults to do at least 150–300 minutes of moderate-intensity aerobic physical activity (such as brisk walking, stair climbing, mopping floor, scrubbing bathroom, etc.); or at least 75–150 minutes of vigorous-intensity aerobic physical activity (such as jogging, jumping rope, fast dancing, playing with children at a fast pace, etc.); or an equivalent combination of moderate- and vigorous-intensity activity throughout the week. Also, members of the public should limit the amount of time spent being sedentary.¹⁰



Maintain an optimal body weight and waist circumference — Being overweight or obese throughout adulthood or greater weight gain in adulthood increases the risk of postmenopausal breast cancer in women.⁹ Among Asian women, studies also observed that overweight (BMI 23.0–24.9 kg/m²) and obesity (BMI ≥ 25.0 kg/m²) during premenopausal period was associated with 17% and 36% increased risk of developing breast cancer respectively.¹¹ Chinese women in Hong Kong should maintain their BMI between 18.5 kg/m² and 22.9 kg/m². Irrespective of BMI, they should keep their waist circumference below 80 cm (about 31.5 inches).



Refrain from alcohol drinking — Alcohol is a cancer-causing agent. As far as cancer risk concern, there is no safe level for alcohol drinking; even light drinking increases breast cancer risk.¹² The cancer-causing effect is the same for beer, wine or spirits.¹³ There is strong evidence that consuming alcoholic beverages also increases the risk of cancers of the mouth, larynx and pharynx, oesophagus, stomach, liver and colorectum.¹⁴ Studies also found that alcohol consumption in adolescence was associated with increased risk of benign breast disease in young women.^{15, 16} Furthermore, alcohol is highly caloric (with 7 kilocalorie per gram of alcohol) that excessive consumption can lead to weight gain. Of note, evidence on the possible heart benefit of alcohol remains controversial. As cancer-causing agent, alcohol should not be considered as something to protect the heart.



Do not smoke and avoid secondhand smoke — Tobacco smoke, including secondhand tobacco smoke, causes cancer. Despite insufficient evidence on causality, there are studies showing that women who smoke might have higher risk of developing breast cancer.¹⁷ Smokers and members of the public can visit www.livetobaccofree.hk or call the Quitline 1833 183 for information on quitting and for free quit support and services.



Breastfeed each child for longer duration — Breastfeeding reduces women's risk of breast cancer. In general, the greater the number of months that women continue breastfeeding their babies, the greater the protection these women have against breast cancer.¹⁸

Remember, be breast aware at all times is crucial to the prevention of breast cancer. In fact, many breast diseases are found by the women themselves after noticing a change in the breast. Leading a healthy lifestyle is also important. For more information on breast cancer prevention, please visit Cancer Online Resource Hub at www.cancer.gov.hk.

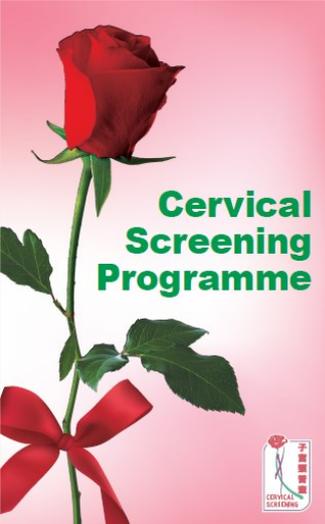
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Cervical Screening Programme

As recommended by the Cancer Expert Working Group on Cancer Prevention and Screening, women aged 25 to 64 who ever had sexual experience should have cervical cancer screening by cytology every three years after two consecutive normal annual screenings. Screening may be discontinued in women aged 65 or above if three previous consecutive screenings within ten years are normal. Women at or above 65 years of age who have never had a cervical screening should have the test.

To promote the CSP and encourage women to have regular cervical cancer screening, DH produced a series of 5 new videos of cervical cancer screening: **A Reminder to Love Yourself**. The videos can be viewed at www.cervicalscreening.gov.hk/english/res/res_avresources.html. For more information about cervical cancer screening, please visit the thematic website at www.cervicalscreening.gov.hk.



Cervical Screening Programme

(1) Go For Regular Screening



(2) No More Excuse



(3) Vaccine Along, Once And For All?



(4) A Lady's Secret!



(5) Info For You



Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.

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