

# BREAST CANCER



## Symptoms that best predict breast cancer

- lump or lumpiness in breast or axilla, especially if it's only in one breast or on one side
- breast lump and pain
- changes in nipple appearance, e.g. retraction, scaliness, inversion, redness
- discharge from the nipple
- breast pain, particularly localised with or without cyclic variation
- change in shape or appearance of breast, e.g. dimpling, redness.

Figure 1: Probability of cancer if clinical features present

Age (years)	PPV= Positive predictive value (%) or probability of cancer				
	Breast pain	Nipple discharge	Nipple retraction	Breast lump	Breast lump/pain
40-49	0.17	1.2	□	4.8	4.9
50-59	0.80	2.1	2.6	8.5	5.7
60-69	1.2	2.3	3.4	25	6.5
>70	2.8	23	12	48	>5

Figure 1 shows the probability of breast cancer for clinical features paired with age groups.

For example, the probability of breast cancer for a breast lump at age 40-49 years is 4.8%. This increases to 48% for a woman aged 70 years or over.

Probabilities highlighted in red are >5%, and urgent referral should be considered.

- >5% probability of cancer
- 2-5% probability of cancer
- 1-2% probability of cancer
- <1% probability of cancer
- denotes data unknown

Note: PPV estimates are for average-risk patients only and do not consider factors such as family history or recent investigations

## Risk factors

- **family history of breast or ovarian cancer** (see [iPrevent](#) for risk criteria)
- **increasing age** (uncommon <40 years)
- **previous diagnosis of breast cancer** or high risk benign lesion such as LCIS
- **high breast density**
- **hormonal factors:**
  - longer menstrual history (age at menarche <12 years, age at menopause >55 years)
  - use of hormonal treatments (menopausal hormone therapy, oral contraceptive pill)
  - conception history (age at first birth >29 years, nulliparity)
- **alcohol use, smoking, overweight and obesity** (particularly in postmenopausal women)
- **physical inactivity**

## Implications for practice

- Any new breast symptom or sign should be investigated as clinically indicated.
- **The triple-test** is the recommended approach in the investigation of new breast changes. The triple-test includes:
  1. Clinical examination and family history.
  2. Imaging (mammography and/or ultrasound).
  3. Non-excision biopsy (Core biopsy and/or FNA cytology).
- If any of the triple test results are abnormal or if even one of the results do not fit with a benign diagnosis, refer urgently to a Breast Assessment Clinic or Breast Surgeon.
- Nipple retraction in women over 50 years should be investigated.

## Diagnostic pathways

Refer to Cancer Australia's '[The investigation of a new breast symptom: a guide for GPs](#)' for investigation pathways.

Refer all suspected breast cancer within two weeks to a Breast Assessment Clinic affiliated with a multidisciplinary team (MDT).

View more FCE resources at [findcancerearly.com.au/gp/](http://findcancerearly.com.au/gp/)

Partner:



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