

Check for any changes to the look and feel of your breast area, including up to your collarbone (upper chest) and armpits.
In addition to looking for a lump or swelling, nipple changes, discharge and a change in the color, size or shape of your breasts.

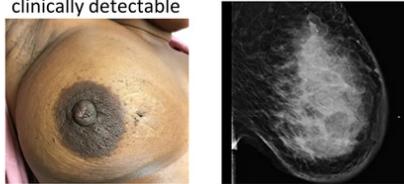
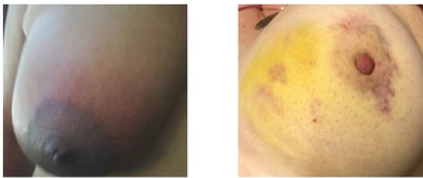
Characteristic	Score			Priority Factor (multiplier)
	3	2	1	
Timing of signs/symptoms	≤ 3 months	3-6 months	> 6 months	3
Skin changes	Any peau d'orange 	Skin edema/thickening over > 1/3 of the breast 	Focal skin edema/thickening < 1/3 of the breast 	3
Swelling or engorgement of the breast	Any clinically apparent enlargement; new asymmetry 	<i>Intentionally blank; patients receive either a score of 3 or 1 for this characteristic</i>	Breast edema identified on imaging but not clinically detectable 	3
Erythema or other skin discoloration: pink, red, darkened, bruising/purplish or serpiginous in character	Complete or near complete involvement of breast 	Not complete but greater than minimal involvement of the breast 	Minimal involvement or ambiguous color change 	2
Nipple abnormalities	New nipple inversions 	New nipple flattening or other asymmetry 	Crusting of the nipple/areola; no other changes 	2

Image Source: Inflammatory Breast Cancer defined: proposed common diagnostic criteria to guide treatment and research

Non-Cancerous Breast Conditions

Fibrosis and Simple Cysts

Hyperplasia (Ductal or Lobular)

Lobular Carcinoma in Situ (LCIS)

Adenosis

Fibroadenomas

Phyllodes Tumors

Intraductal Papillomas

Fat Necrosis and Oil Cysts

Mastitis

Duct Ectasia

Radial Scars and Other Non-cancerous Breast Conditions

Benign vs malignant breast changes

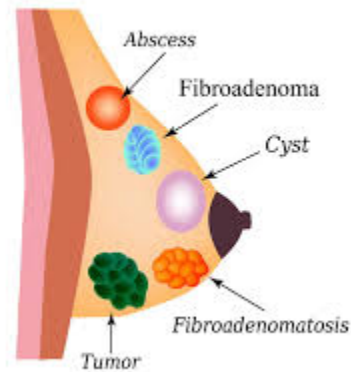


Image Source: Dr. Ashish Goyal: Laser Laproscopic GI and General Surgeon

The most common breast masses are due to fibrocystic changes, fibroadenomas, or malignancy. Biopsy is usually needed for confirmation, but the following characteristics are diagnostic clues:

CHARACTERISTICS	FIBROCYSTIC CHANGES	FIBROADENOMAS	MALIGNANCY
(Illustrations show how the lump may feel because it is usually not visible.)			
Age	30–60 years, regress after menopause except with use of estrogen therapy	Puberty to menopause	30–90 years; most common, 40–80 years
Number	Single or multiple	Usually single	Usually single
Shape	Round	Round, disk, or lobular	Irregular or stellate
Consistency	Soft to firm, usually elastic	Usually firm	Firm or hard
Mobility	Mobile	Mobile	May be fixed to skin or underlying tissues
Tenderness	Usually tender	Usually nontender	Usually nontender
Retraction signs	Absent	Absent	May be present

Image Source: Medical surgical nursing: Assessment and Management of Patients with breast disorders

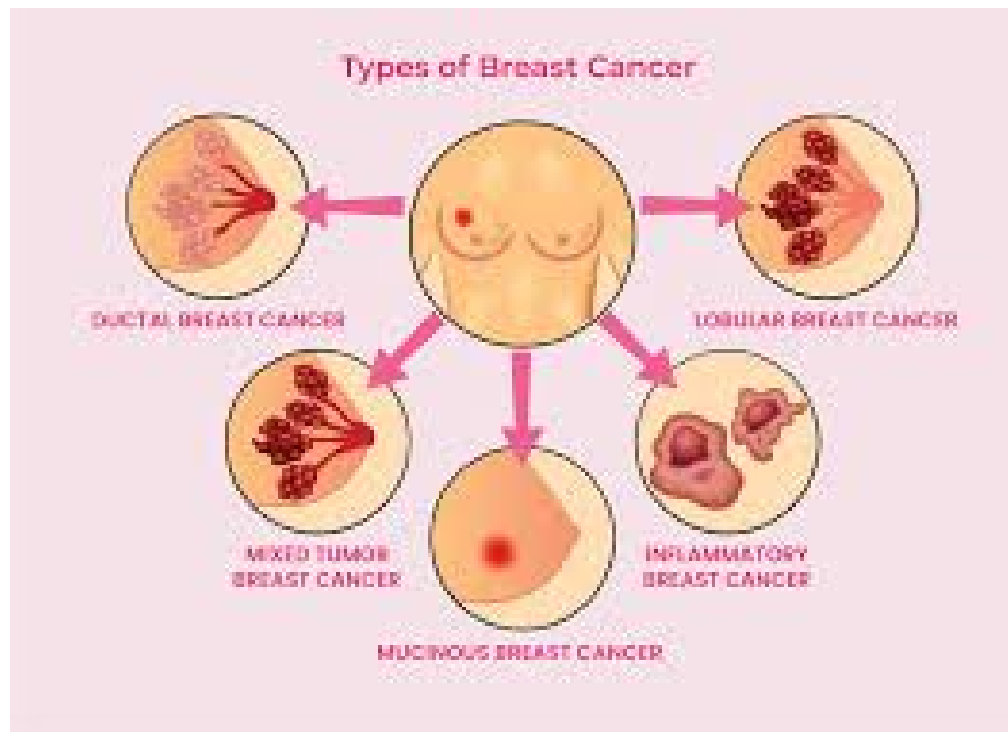


Image Source: Dr. Sanjay Sharma, Cancer Specialist in Mumbai

A majority of breast cancers are carcinomas, which are tumors that start in the epithelial cells that line organs and tissues. When carcinomas form in the breast, they are usually a specific type called adenocarcinoma, which can either be ductal or lobular. Cancer that has not spread from the original site to the rest of the breast tissue is known as in situ. Invasive breast cancer is used to describe any type of breast cancer that has spread into the surrounding breast tissue.

Ductal Carcinoma

A type of breast cancer that starts in the cells that line a milk duct in the breast. The most common type of breast cancer is the invasive or infiltrating form of ductal carcinoma. The cancer breaks through the wall of the duct, and grows into the nearby breast tissues. It has the possibility of metastasizing to other parts of the body through the lymph system and bloodstream.

Lobular Carcinoma

A type of breast cancer that starts in the breast glands that make milk (lobules). It has the possibility of being invasive.. Invasive lobular carcinoma may be harder to detect on physical exam and imaging, like mammograms. It is more likely to affect both breasts compared to other invasive breast cancers.

Inflammatory Breast Cancer

A rare and aggressive form of breast cancer. It is characterized by visible changes in the skin of the breast including edema, redness of the breast, or appear swollen and dimpled, with an “orange peel” appearance.. It arises from untreated invasive carcinomas within the breast.

Mucinous Breast Cancer

A rare type of invasive breast cancer. It is characterized by cancer cells surrounded by mucin. Mucin is a jelly-like (gelatinous) substance found naturally in the body. It is sometimes found alongside another type of breast cancer called invasive breast cancer (no special type). This may be referred to as “mixed” mucinous breast cancer. Mucinous breast cancer found on its own, known as “pure” mucinous breast cancer, is less common.

Non-Cancerous Breast Conditions

<https://www.cancer.org/cancer/types/breast-cancer/non-cancerous-breast-conditions.html>

Benign Breast Conditions

- **Common and non-life-threatening:** Most women experience **benign (non-cancerous) breast changes**, and these are **not the same as breast cancer**.
- **Symptoms:** Some benign conditions may cause **pain, lumps, or nipple discharge**, while others are found on a **mammogram**.
- **Diagnosis:** Because some benign changes can **look like cancer**, **additional tests** may be needed to confirm the diagnosis.
- **Cancer Risk:** Most benign conditions are harmless, but **some may slightly increase the risk** of developing breast cancer later.

Fibrosis and Simple Cysts

What is Fibrosis?

Fibrosis refers to the formation of **firm, rubbery fibrous tissue** in the breast—similar to scar tissue or ligaments. It can feel lumpy or firm when touched.

What are Cysts?

Cysts are **fluid-filled sacs** in the breast that feel like round, movable lumps and can be tender.

- **Common in women in their 30s-40s**, but can occur at any age.
- **Hormonal changes**, especially before menstruation, often cause cysts to swell and become painful.

Types:

- **Microcysts** – Too small to feel unless grouped.
- **Macrocyts** – Larger and often easy to feel (up to 1–2 inches).

Diagnosis

Diagnosis is typically based on **symptoms** like lumps, swelling, or pain, which may vary with the menstrual cycle.

- A **breast ultrasound** is used to check if a lump is solid or fluid-filled.

Cyst types:

- **Simple cyst** – Completely fluid-filled; not a concern.
- **Complicated cyst** – Fluid with debris; rarely cancerous, but may need follow-up.
- **Complex cystic/solid mass** – May contain solid parts; higher cancer risk; needs biopsy.

Cancer Risk

- **Fibrosis and simple cysts do NOT increase breast cancer risk.**
- **Complicated or complex cysts** may have a **small risk** of cancer, depending on biopsy results.

Treatment Options

Usually **no treatment is needed** unless symptoms are bothersome.

Treatment may include:

- **Needle drainage** for painful cysts
- **Surgery** if cysts recur frequently
- **Pain relief**: supportive bras, warm compresses, over-the-counter meds (e.g., ibuprofen)
- **Lifestyle changes**: some women find symptom relief by avoiding caffeine, though not scientifically proven
- **Hormonal therapy** (e.g., birth control, tamoxifen) may be used for **severe symptoms** but carries risks

When to See a Doctor

If symptoms **worsen or don't improve**, medical evaluation is important to rule out other conditions.

Hyperplasia

What is Hyperplasia?

Hyperplasia is an overgrowth of cells in the breast ducts or lobules and is categorized based on how abnormal the cells appear under a microscope:

- **Usual Ductal Hyperplasia (UDH):**
 - Extra cells line the breast ducts
 - Cells look close to normal
 - **Low concern**, minimal cancer risk increase
- **Atypical Hyperplasia (AH):**
 - Cells appear more distorted/abnormal
 - Two types:
 - **Atypical Ductal Hyperplasia (ADH)**
 - **Atypical Lobular Hyperplasia (ALH)**
 - **Higher concern**, greater risk of breast cancer

Diagnosis

- Hyperplasia doesn't usually cause a lump.
- Often found via **mammogram** and confirmed by **biopsy** (needle or surgical).

Breast Cancer Risk

- **Usual hyperplasia:**
 - Risk is about **1.5 to 2 times** higher than average
- **Atypical hyperplasia (ADH or ALH):**
 - Risk is about **4 to 5 times** higher

Treatment

- **Usual ductal hyperplasia:**
 - No treatment needed
- **Atypical hyperplasia:**
 - If found via needle biopsy, **surgery** may be recommended to ensure no cancer is nearby
 - If found via surgical biopsy, usually **no further treatment** is required

Reducing Risk & Monitoring

For women with ADH or ALH:

- **Regular monitoring:** Breast exams every 6–12 months, yearly mammograms, and possibly breast MRIs
- **Lifestyle changes** to lower breast cancer risk
- **Medication** (e.g., risk-reducing drugs) may be considered in high-risk cases

Usual hyperplasia is benign and low-risk, while atypical hyperplasia significantly increases breast cancer risk and may require more follow-up and prevention strategies.

Lobular Carcinoma In Situ (LCIS)

What is LCIS?

- **Lobular Carcinoma In Situ (LCIS)** is a **non-cancerous breast condition** where abnormal cells grow in the **lobules** (milk-producing glands).
- These cells **do not spread** beyond the lobules, so LCIS is **not considered cancer**.

Types of LCIS:

1. **Classic LCIS:** Small, uniform abnormal cells.
2. **Pleomorphic LCIS:** Larger, more irregular cells.
3. **Florid LCIS:** Larger clusters of cells, sometimes forming a mass with dead cells in the center (necrosis).

Diagnosis:

- Usually found **by accident** during a biopsy for another issue.
- **Classic LCIS** typically doesn't show up on mammograms or cause symptoms, but **pleomorphic and florid LCIS** sometimes do.

Cancer Risk:

- LCIS increases the risk of developing **invasive breast cancer** in **either breast** by **7 to 12 times**.
- It is considered a **marker of increased risk**, not a precancerous condition.

Treatment:

- Often, **no treatment** is needed beyond the biopsy.
- If LCIS (especially pleomorphic or florid types) is found on **needle biopsy**, doctors may recommend **surgical removal** to ensure nothing more serious is present.
- In some cases, **more extensive surgery** may be advised if abnormal cells remain.

Risk Management:

- **Lifelong follow-up** with regular exams, yearly mammograms, and possibly MRIs
- **Lifestyle changes** to reduce cancer risk
- **Preventive medications** may be considered
- In high-risk cases (e.g., BRCA mutation), **preventive surgery (mastectomy)** may be an option

Key Point:

LCIS is **not cancer**, but it **significantly raises the risk** of developing invasive breast cancer, so careful **monitoring and risk reduction** strategies are important.

Adenosis of the Breast

What is Adenosis?

- **Adenosis** is a **benign (non-cancerous)** condition where the **lobules (milk glands)** in the breast are **enlarged** and contain **more glands than usual**.
- It is often found in women with **fibrocystic breast changes**.
- Despite names like “adenosis tumor,” **it is not cancer**.

Types:

- **Sclerosing adenosis**: A form of adenosis where **scar-like tissue** distorts the lobules. It can cause **breast pain** and may mimic cancer on exams or imaging.

Diagnosis:

- When many enlarged lobules cluster together, they may feel like a **breast lump**.
- **Calcifications** (tiny mineral deposits) may appear on mammograms, similar to those seen in breast cancer.
- Because adenosis can **look like cancer**, a **biopsy** is often needed to confirm the diagnosis.

Treatment:

- Usually **no treatment** is needed unless **pain or symptoms** occur.

Cancer Risk:

- **Most types of adenosis do not increase breast cancer risk**.
- **Sclerosing adenosis** may be linked to a **slightly higher risk** in some studies.

Key Point:

Adenosis is a **non-cancerous** breast condition that may **mimic cancer** on imaging, but generally doesn't increase cancer risk and often **requires no treatment**.

Fibroadenomas of the Breast

- **What are fibroadenomas?**
Fibroadenomas are **common, benign breast tumors** made of glandular and stromal tissue.
- **Who gets them:**
Most common in women in their 20s–30s; may shrink after menopause.
- **Symptoms & signs:**
 - May be single or multiple.
 - Usually round or oval with smooth borders.
 - Firm, rubbery, movable, and painless.
 - Some are too small to feel.
- **Diagnosis:**
 - Often found on **mammogram or ultrasound**.
 - **Biopsy** may be needed to confirm diagnosis.
 - Types:
 - **Simple fibroadenomas:** uniform under microscope.
 - **Complex fibroadenomas:** larger, more common in older women.
- **Cause:**
Unknown
- **Cancer risk:**
 - **Simple:** minimal or no increased risk.
 - **Complex:** slight increase in risk.
- **Treatment:**
 - Often **no treatment** needed if stable.
 - **Removal** may be advised if growing or changing breast shape.
 - Monitoring with regular exams or imaging is common.
 - New fibroadenomas may form after removal, but this doesn't mean recurrence of the old one.
- **Key Point:**
 - Fibroadenomas are benign, often stable or shrinking over time, and typically managed with observation unless they change.

Phyllodes Tumors of the Breast

- **What are phyllodes tumors?**

Phyllodes tumors are **rare breast tumors** that arise from **stromal (connective) tissue**, not ducts or glands.

- **Most are benign**, but some can be malignant (cancerous).

- **Classification:**

- **Benign** – most common; slow-growing, rarely spreads.
- **Borderline** – features between benign and malignant.
- **Malignant** – about 25%; grow fastest, more likely to recur or spread.

- **Who's at risk:**

- Most common in women in their **40s**.
- **Li-Fraumeni syndrome** increases risk.

- **Symptoms & diagnosis:**

- Usually a **firm, painless lump** that can grow quickly and stretch the skin.
- May appear on **ultrasound or mammogram**, often resembling fibroadenomas.
- **Core needle biopsy** or **excisional biopsy** confirms diagnosis and tumor type.

- **Breast cancer risk:**

- **Benign phyllodes tumors:** do **not** increase breast cancer risk.
- **Malignant phyllodes tumors:** also don't raise the risk of other breast cancers, but can recur—so close follow-up is needed.

- **Treatment:**

- **Surgical removal** is standard.
- Benign: excisional biopsy if completely removed.
- Borderline/malignant: wider surgical margins (lumpectomy or mastectomy); may need **radiation**.
- Malignant tumors behave more like **sarcomas**, so typical breast cancer treatments (like hormone therapy or standard chemo) may not work well.

- **Follow-up:**

Because recurrence is possible, **regular breast exams and imaging** are essential after treatment.

- **Key Point:**

- Phyllodes tumors are rare stromal breast tumors, usually benign but sometimes malignant, treated primarily with surgery and close post-treatment monitoring.

Intraductal Papillomas of the Breast

- **What are intraductal papillomas?**

Intraductal papillomas are **benign, wart-like tumors** that grow **inside milk ducts** of the breast, made of gland tissue, fibrous tissue, and blood vessels.

- **Types:**

- **Solitary papillomas:**

- Single tumor near the nipple in large ducts.
 - Common cause of **clear or bloody nipple discharge** from one breast.
 - May be felt as a small lump and sometimes painful.

- **Multiple papillomas:**

- Found in smaller ducts away from the nipple.
 - Usually **do not cause nipple discharge**.

- **Papillomatosis:**

- Small, less distinct areas of abnormal cell growth.

- **Diagnosis:**

- Detected by **nipple discharge**, lump, or **imaging** (mammogram or ultrasound).
 - **Ductogram (galactogram)** may help localize the lesion.
 - **Biopsy or surgical excision** confirms diagnosis.

- **Breast cancer risk:**

- **Single papilloma:** no increased risk unless atypical hyperplasia is present.
 - **Multiple papillomas:** slight increase in breast cancer risk.

- **Treatment:**

- Depends on size, number, and symptoms.
 - Often involves **surgical removal** of the papilloma and the affected duct to rule out other abnormalities and relieve symptoms.

- **Key Point:**

- Intraductal papillomas are benign ductal growths—often near the nipple and causing discharge. They may require surgical removal, especially if multiple or symptomatic, and carry a slight cancer risk when multiple or associated with atypia.

Fat Necrosis and Oil Cysts in the Breast

- **What is fat necrosis?**

Fat necrosis is a **benign breast condition** that develops when fatty breast tissue is injured.

It may occur **after trauma, surgery, or radiation**.

- **Stages:**

- Damaged fat cells **die and release oily fluid**, forming an **oil cyst**.
- Over time, **calcifications** can develop around the cyst.
- The area may eventually be replaced by **scar tissue**.

- **Diagnosis:**

- May present as a **painless lump**; skin may appear thicker, red, or bruised.
- Can mimic breast cancer on exam or imaging.
- Usually diagnosed by **mammogram or ultrasound**; if uncertain, **needle or core biopsy** is done.

- **Breast cancer risk:**

- **Does not increase** the risk of breast cancer.

- **Treatment:**

- Often **no treatment needed** if diagnosis is clear.
- May **resolve on its own**.
- **Needle aspiration** can remove fluid from oil cysts.
- Surgery is an option if the lump enlarges or causes discomfort.

- **Key Point:**

- Fat necrosis and oil cysts are **benign changes** often related to trauma or surgery. They can mimic cancer but usually require **no treatment** once properly diagnosed.

Mastitis

- **What is mastitis?**

Mastitis is **inflammation of the breast**, usually caused by infection.

- Most common in **breastfeeding women**, but can occur at other times.
- Often linked to **clogged milk ducts** or **breaks in the nipple skin**.

- **Symptoms:**

- Swelling, redness, warmth, and pain in the breast (usually one side).
- Fever, headache, and flu-like symptoms may occur.

- **Diagnosis:**

- Typically based on **symptoms and breast exam**.
- Important to distinguish from inflammatory breast cancer if symptoms persist.

- **Breast cancer risk:**

- Mastitis **does not increase** the risk of breast cancer.
- Persistent symptoms after antibiotics may need a **biopsy** to rule out inflammatory breast cancer.

- **Treatment:**

- **Antibiotics** and frequent **emptying of the breast**.
- If a **breast abscess** forms, it may need **drainage** (needle aspiration or surgery) plus antibiotics.

- **Key Point:**

- Mastitis is a common breast infection in breastfeeding women, usually resolving with antibiotics and drainage. Persistent symptoms require further evaluation to rule out inflammatory breast cancer.

Duct Ectasia

- **What is duct ectasia?**

Duct ectasia (mammary duct ectasia) is a **benign breast condition** where a **milk duct widens**, its walls thicken, and **fluid builds up**, sometimes causing blockage.

- Most common **around menopause**, but can occur at any age.

- **Diagnosis:**

- Often **asymptomatic** and found incidentally during a biopsy for another issue.
- When symptomatic:
 - **Thick, sticky nipple discharge**
 - **Tenderness**, redness, or nipple **inversion**
 - Sometimes scar tissue causes a lump, which can mimic cancer.
- **Mammogram or ultrasound** may be used to evaluate further.

- **Breast cancer risk:**

- **Does not increase** breast cancer risk.

- **Treatment:**

- May **resolve on its own**.
- Warm compresses and **antibiotics** can help if infected or inflamed.
- Persistent symptoms may require **surgical removal** of the affected duct.

- **Key Point:**

- Duct ectasia is a **non-cancerous** condition common near menopause, sometimes causing discharge or nipple changes, and usually improves with conservative treatment.

Radial Scars and Other Non-cancerous Breast Conditions

- **Radial scars (complex sclerosing lesions):**
 - Benign breast findings often discovered **incidentally on biopsy** or seen as **distorted tissue on mammogram**.
 - Not actual scars, but **look scar-like under a microscope**.
 - Usually **no symptoms**.
 - Important because:
 - Large lesions may **mimic cancer** on imaging or biopsy.
 - Associated with a **slight increase in breast cancer risk**.
 - **Treatment:** often **surgical removal**; sometimes monitored with imaging.
- **Other benign breast conditions:**
 - Do **not increase breast cancer risk**, but may require **biopsy or removal** to confirm diagnosis.
 - Examples include:
 - **Lipoma:** fatty, painless tumor.
 - **Hamartoma:** smooth, painless lump of mixed breast tissue.
 - **Hemangioma:** rare, made of blood vessels.
 - **Hematoma:** blood collection from internal bleeding.
 - **Adenomyoepithelioma:** rare tumor from duct wall cells.
 - **Neurofibroma:** nerve cell overgrowth.
 - **Granular cell tumor:** rare Schwann cell–derived tumor, occasionally in the breast.
- **Key point:**

Radial scars and several other **benign breast masses** can mimic cancer on imaging but **don't raise cancer risk significantly** (except radial scars slightly). They are often biopsied or removed to confirm diagnosis.