CONDITION

Cribriform carcinoma

Cribriform carcinoma is a rare invasive breast cancer with a sieve-like pattern under the microscope.

WHAT IT IS
Rare invasive breast cancer with sieve-like cell patterns

BODY SYSTEM
Breast and lymphatic system

MAIN SYMPTOMS
Breast lump, mammogram change, nipple change, skin dimpling

WHAT CAUSES IT
Unknown; acquired cell changes drive growth

HOW IT IS DIAGNOSED
Core needle biopsy with microscopic and biomarker testing

MAIN TREATMENT
Surgery, often radiation and hormone-blocking treatment

CAN IT BE CURED?
Sometimes - localized cancer may be removed completely

IS IT AN EMERGENCY?
No - unless treatment causes severe infection or breathing problems

LONG-TERM OUTLOOK
Usually favorable when low-grade and localized

Overview

Cribriform carcinoma is a rare type of invasive breast cancer. "Cribriform" describes how the cancer cells are arranged under a microscope: they form small, rounded spaces that look like a sieve.

"Invasive" means the cancer has grown beyond the breast ducts or lobules where it began and into nearby tissue. This differs from ductal carcinoma in situ, or DCIS, which remains inside a milk duct. DCIS can also have a cribriform pattern, but it is not the same condition.

Cribriform carcinoma is usually low grade, meaning its cells tend to look less abnormal and grow more slowly than high-grade cancer cells. Many tumors are hormone receptor-positive, so hormones such as estrogen can help them grow. Features vary between tumors and must be confirmed by testing.

"Cribriform" can also describe patterns in prostate and salivary gland cancers. This article concerns invasive cribriform carcinoma of the breast; the meaning and treatment differ when the term refers to another organ.

Symptoms

Cribriform carcinoma has no unique symptoms. It can cause the same changes as other breast cancers, and some cases are detected by routine imaging before symptoms develop.

Possible signs include:

Breast pain is common and usually is not caused by cancer. Persistent pain in one area should still be assessed, especially with a lump or visible change.

Most breast changes are not cancer, but any new or unexplained change needs medical assessment.

- A new breast or underarm lump
- Thickening or an area that feels different
- A change in breast shape, size, or skin texture
- An inward-turning nipple or unusual nipple discharge
- An abnormal area on a mammogram or another scan

Causes and risk factors

The exact cause is unknown. Cribriform carcinoma develops when breast cells acquire changes in their genetic material that allow uncontrolled growth and survival. These changes are not necessarily inherited.

There are no well-established risk factors specific to this subtype. General breast cancer risk factors include increasing age, previous breast cancer, certain inherited gene changes, a strong family history, previous chest radiation, alcohol use, and prolonged exposure to estrogen and progesterone.

Risk factors do not mean someone will develop cancer, and some people diagnosed with it have no clear risk factors.

Most cribriform carcinomas are not caused by an inherited cancer syndrome. Genetic counseling or testing may be considered after diagnosis at a young age or when personal or family history suggests inherited risk. Inherited genetic testing differs from tests performed

directly on the tumor.

Diagnosis

A breast lump or imaging change is usually assessed with a clinical examination and imaging, such as a diagnostic mammogram and ultrasound. MRI may be used to assess the cancer's extent or examine the other breast in selected situations.

Imaging cannot confirm cribriform carcinoma. Diagnosis requires a biopsy, usually a core needle biopsy, which removes tissue samples for examination by a pathologist.

The pathologist looks for the characteristic cribriform pattern and determines whether cells have invaded surrounding tissue. A tumor may be "pure" cribriform carcinoma or mixed with another invasive breast cancer pattern. This distinction can affect estimates of outlook and treatment decisions.

The tissue is also tested for:

Most cribriform carcinomas are hormone receptor-positive and HER2-negative, but individual pathology results are essential.

Further assessment establishes the stage: the tumor's size, whether nearby lymph nodes contain cancer, and whether it has spread to distant organs. Scans for distant spread are not always necessary for a small, early cancer without concerning symptoms.

- Estrogen and progesterone receptors
- HER2, a growth-promoting protein targeted by certain medicines
- Tumor grade, which describes how abnormal the cancer looks

Treatment and management

Treatment depends on tumor size, stage, grade, hormone receptor and HER2 results, and whether the tumor is pure or mixed. General health and personal preferences also matter.

Surgery is usually the main treatment for localized cancer. Breast-conserving surgery removes the tumor with a border of healthy tissue. A mastectomy removes the breast and may be considered for a large or widespread area, multiple tumors, or personal preference.

A sentinel lymph node biopsy may be performed during surgery to check the first lymph nodes likely to receive drainage from the tumor. More extensive lymph node surgery is not required for everyone.

Radiation therapy is commonly offered after breast-conserving surgery to lower the chance of cancer returning in the breast. Its use after mastectomy depends on factors including tumor size, surgical margins, and lymph node involvement.

Hormone-blocking treatment, also called endocrine therapy, is often recommended for hormone receptor-positive tumors. It reduces estrogen activity or prevents estrogen from stimulating cancer cells. The medicine and treatment length depend on menopausal status, recurrence risk, and other factors.

Chemotherapy is not automatically needed. Its potential benefit is weighed against this subtype's often favorable features, along with stage, grade, biomarkers, and sometimes genomic test results. A genomic test measures activity in selected tumor genes and may help determine whether chemotherapy is likely to add benefit in some early hormone receptor-positive cancers.

HER2-targeted treatment is used only for HER2-positive cancer, which is uncommon in cribriform carcinoma.

Cancer that has spread beyond the breast and nearby lymph nodes is generally treated with medicines that work throughout the body. Options may include endocrine therapy, targeted therapy, chemotherapy, or combinations based on the tumor's current characteristics.

Complications

Cribriform carcinoma can return in the breast, nearby tissues, or elsewhere in the body. Recurrence risk is often lower for a small, low-grade, pure cribriform carcinoma than for many other invasive breast cancers, but it is not zero.

The cancer can spread to lymph nodes or distant organs. Mixed patterns, larger tumors, higher-grade cells, and lymph node involvement may indicate a less favorable outlook.

Possible lasting treatment effects include breast or chest-wall discomfort, changes in appearance or sensation, fatigue, early menopause, reduced bone strength from some hormone treatments, and lymphedema. Lymphedema is swelling from lymph fluid buildup, usually in the arm or breast after lymph node treatment or radiation.

Report side effects early so the care team can identify their cause and offer treatment or support.

Prevention

There is no proven way to prevent cribriform carcinoma specifically, and most cases are not explained by something a person did or did not do.

Measures associated with lower overall breast cancer risk include limiting alcohol, staying physically active, and maintaining a weight that is healthy for you, particularly after menopause. These measures cannot eliminate risk.

Breast screening does not prevent cancer but can detect some cancers before symptoms develop. Screening schedules depend on age, location, personal history, and inherited risk.

People with substantially increased inherited risk may be offered closer screening, risk-reducing medicines, or preventive surgery. These specialist options are based on individual risk and are not recommended solely because a relative had cribriform carcinoma.

Living with it and what to expect

Many cribriform carcinomas are diagnosed early and have features associated with a favorable outlook. Surgery may remove all detectable cancer, followed by treatment to reduce recurrence risk. However, no pathology type guarantees that cancer will not return.

Recovery from surgery usually takes weeks, although fatigue and sensation changes may last longer. Radiation can cause temporary skin soreness and tiredness. Hormone-blocking treatment may continue for years, making side-effect management an important part of long-term care.

Follow-up generally includes appointments to discuss symptoms, examine the treated area when appropriate, and arrange breast imaging. Routine whole-body scans are not usually used after early breast cancer unless symptoms or examination findings suggest they are needed.

Many people return to work, exercise, family life, and usual activities. Some continue to experience fatigue, body-image concerns, menopausal symptoms, fear of recurrence, or swelling. Rehabilitation, physiotherapy, psychological support, and menopause or symptom services can help.

Outlook depends more on stage, lymph node involvement, grade, biomarkers, and treatment response than on the word "cribriform" alone.

When to get medical help

Arrange a prompt, routine medical assessment for a new breast or underarm lump, nipple discharge, skin dimpling, a change in breast shape, or another persistent breast change. These

symptoms are not usually an emergency but should not be ignored.

After diagnosis or treatment, contact your cancer team promptly about a new lump, persistent unexplained bone pain, an ongoing cough, worsening swelling, unexpected weight loss, or new symptoms that do not settle. These symptoms have many possible causes and do not necessarily mean the cancer has returned.

During treatment, seek same-day medical advice for fever or chills, increasing redness or drainage around a wound, repeated vomiting, inability to keep fluids down, or rapidly worsening pain. Cancer treatments can reduce the body's ability to fight infection.

Call emergency services for severe difficulty breathing, sudden chest pain, coughing up blood, fainting, new confusion, signs of a stroke, or bleeding that will not stop. These are emergencies whether or not they are related to cancer.

Common questions

Is cribriform carcinoma really breast cancer?

Yes. It is an invasive breast cancer defined by its microscopic growth pattern. Although often low grade, it still requires staging and appropriate treatment.

Is cribriform carcinoma the same as DCIS?

No. Cribriform DCIS remains inside a breast duct. Invasive cribriform carcinoma has grown into surrounding breast tissue. A pathology report may contain both.

Does cribriform carcinoma spread?

It can spread to lymph nodes or distant organs, although many pure, low-grade tumors are diagnosed while localized. Tumor size, lymph node findings, grade, and biomarkers help estimate risk.

Will I need chemotherapy?

Not everyone does. The decision depends on stage, grade, hormone receptors, HER2 status, other pathology findings, and sometimes a genomic test. Surgery, radiation, and hormone-blocking treatment may be more central for an early hormone receptor-positive tumor.

What does hormone receptor-positive mean?

It means the cancer cells have proteins that respond to estrogen, progesterone, or both. Hormone-blocking medicines can reduce this growth signal and lower recurrence risk for suitable cancers.

Can cribriform carcinoma come back after treatment?

Yes. Recurrence remains possible after complete treatment, although early low-grade cribriform carcinoma often has a favorable outlook. Follow-up care and reporting persistent new symptoms are important.

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