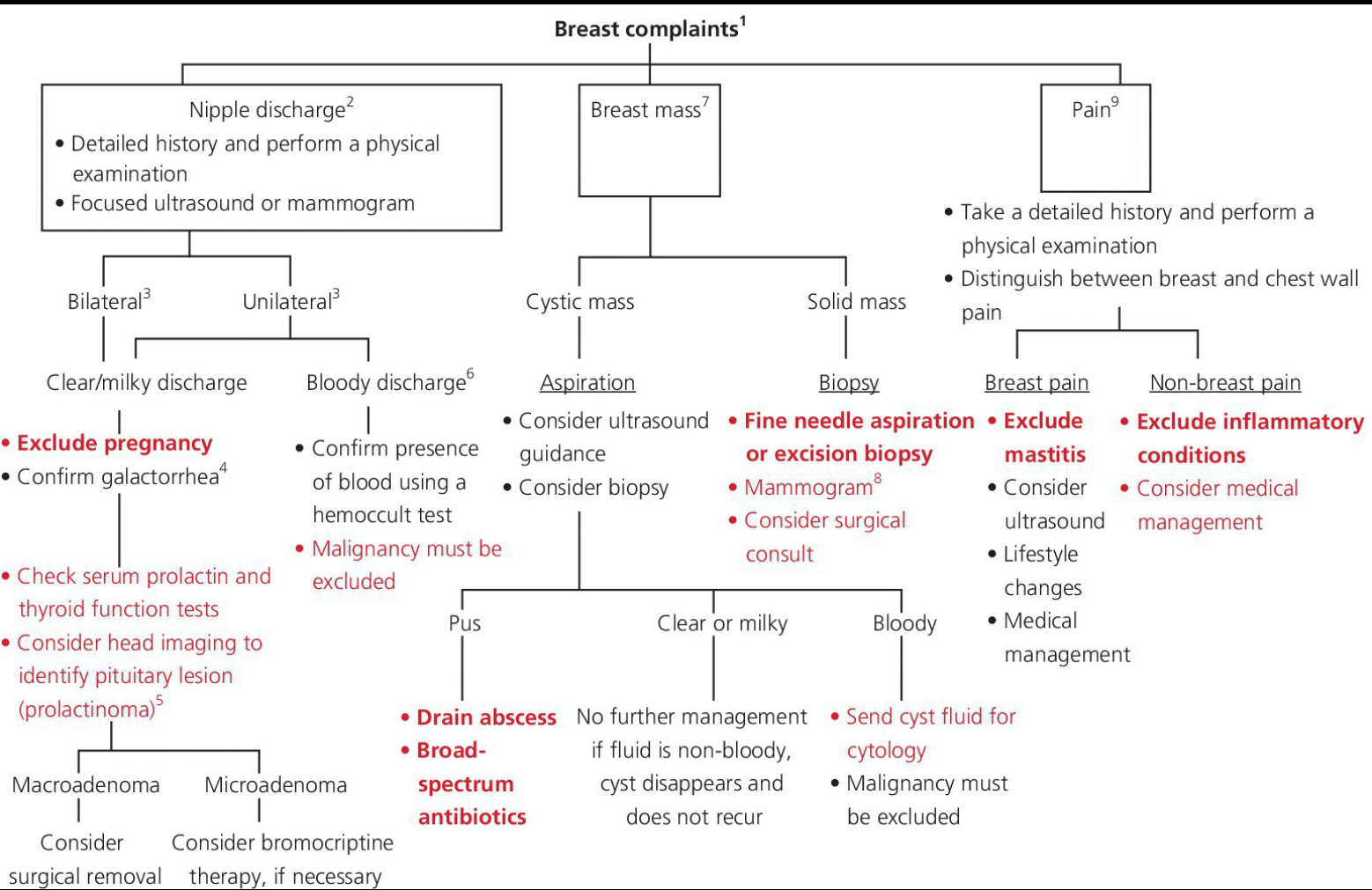




Learn simply

Breast Lesions

Passion profession same



1. A wide range of disorders can present with symptoms relating to the breast, including developmental disorders and diseases of infectious, endocrine, and neoplastic etiology.
2. The presenting symptoms fall into **four main** categories:
pruritus,
pain (mastalgia),
nipple discharge,
breast masses.
3. Careful attention to history and physical exam as well as selective use of laboratory and imaging studies will allow definitive diagnosis.
4. While the majority of breast conditions are benign, an underlying malignancy should always be excluded.
5. Breast discomfort (mastalgia) may be cyclic or non-cyclic.
6. **Cyclic mastalgia** (breast pain that varies with the menstrual cycle) is not related to cancer, but may be severe enough to require symptomatic treatment.
7. **Non-cyclic mastalgia** should be evaluated further to exclude mastitis, abscess, fat necrosis, or trauma. Persistent severe localized breast pain warrants serial clinical breast exams and interval mammograms with or without guided biopsy to exclude malignancy.



1. A detailed history should be taken regarding the **character, timing, color, and consistency of the discharge.**
2. Spontaneous discharge more likely represents an intraductal growth, whereas discharge only upon stimulation or squeezing of the nipple is less concerning.
3. A thorough clinical breast exam should be performed. Breast imaging is recommended either in the form of a focused ultrasound (which is useful for ductal disease) or mammography (which is preferred in women >30 years old).
4. Ductography is technically challenging, but may be useful in some situations. MRI and MRI ductography are gaining popularity as the technology improves.
5. Bilateral nipple discharge almost always represents benign disease.
6. Non-milky, non-bloody bilateral nipple discharge is symptomatic of duct ectasia (plasma cell mastitis) in most cases.
7. Unilateral nipple discharge raises concern about malignancy, but may represent a benign condition (such as intraductal papilloma). Pathologic examination of biopsy material is required to distinguish between these possibilities.



1. Galactorrhea refers to an inappropriate production of milk by the breast.
2. It typically presents as a painless, milky discharge from the breasts bilaterally.
3. Microscopic examination of the discharge will stain positive for fat droplets.
4. It may occur during pregnancy or may represent an underlying endocrine disorder.
5. Women with galactorrhea typically have elevated serum prolactin levels.
6. Causes of elevated prolactin levels include prolactinoma, underlying medical conditions (hypothyroidism, renal failure, encephalitis, meningitis, craniopharyngioma, hypothalamic tumors, hydrocephalus), medications (oral contraceptives, anabolic steroids, medroxyprogesterone acetate, reserpine, omeprazole, calcium channel blockers, opiates, antiemetics, phenothiazines, tricyclic antidepressants, butyrophenones), and other substances (marijuana, alcohol).
7. If pituitary macroadenoma is excluded, the patient has normal menstrual cycles, and the galactorrhea is not socially embarrassing, no treatment is necessary. If one of these medications is implicated, it may be possible to change or discontinue the medication in consultation
8. . Dopamine agonists are considered first-line therapy when medical management is warranted.
9. Cabergoline (0.25 mg twice weekly) has replaced bromocriptine as the drug of choice due to better efficacy and fewer side effects.
10. Symptoms typically resolve within 2-3 weeks and, in the case of a macroadenoma, regression can occur within 6 weeks, but may take as long as 6 months. Fewer than 10% of patients will require long-term dopamine agonist therapy.



1. Prolactinoma is a prolactin-secreting adenoma of the pituitary gland. Dopamine agonists are usually adequate to control symptoms and cause tumor regression (see above). Transsphenoidal resection of the adenoma should be reserved for patients who have macroadenomas (>1.0 cm), have failed medical treatment, or have symptoms of headache or evidence of visual field defects (bitemporal hemianopia).
2. A bloody nipple discharge is concerning for cancer. While only 4% of spontaneous, unilateral, bloody discharge represent cancer, a history of a bloody nipple discharge (whether unilateral or bilateral) should be thoroughly evaluated to exclude malignancy.
3. Any elicited discharge should be examined for the presence of blood (by guiac testing) and managed in concert with the physical findings and breast imaging.
4. A unilateral papilloma arising from the duct is the most likely cause and should be thoroughly evaluated by core needle biopsy to exclude atypia, ductal carcinoma in situ (DCIS), and frank ductal carcinoma.
5. Ductography may be useful in some cases. Cytology alone is no longer considered sufficiently sensitive, specific, or cost-effective.



1. While not all breast masses are cancer, it should be remembered that a palpable mass is the most common presenting symptom of breast cancer.
2. Therefore, reports of a suspected breast mass should always be taken seriously.
3. A detailed history should be taken regarding the timing, character, and consistency of the mass.
4. Associated clinical features may include nipple discharge and pain. The patient's age, parity, menopausal status, personal or family history of cancer, and medication history should also be recorded.
5. The presence of constitutional symptoms (weight loss, anorexia) should be evaluated, since these may point to an underlying malignancy.
6. A detailed clinical breast exam may confirm the presence of the mass as well as its location, size, mobility, consistency, and nodularity.
7. The overlying skin and axillary and supraclavicular lymph nodes should also be examined. Aspiration, imaging (mammography, ultrasound), and biopsy may be necessary to determine what the mass represents.



1. Mammography and directed breast biopsies have led to the increased detection of subclinical abnormalities (such as clustered microcalcifications or asymmetric densities) that may reflect precancerous disease or early breast cancer.
2. Approximately 30% of all biopsies of mammographically abnormal lesions are found to be malignant. Indeed, 35-50% of early breast cancers are detectable only by mammography. Biopsy of the abnormality may be indicated if the diagnostic mammogram remains suspicious.
3. A negative mammogram does not exclude cancer, since upwards of 40% of breast cancers are detectable only by palpation.
4. A screening mammogram is not routinely indicated in young women (<28 years) or in pregnancy, because of the density of the breast tissue.



1. A detailed history and a careful physical examination will determine if the pain is cyclical (usually worse during the luteal phase of the menstrual cycle), bilateral, its severity, and the presence or absence of associated symptoms. Breast pain can have a significant impact on both physical and sexual quality of life.
2. Non-cyclical pain can be a consequence of breast size or inflammatory conditions such as mastitis, ductal ectasia, and hidradenitis suppurativa. It can also be associated with the chest wall, either musculoskeletal or costochondritis (Tietze's syndrome).
3. In rare cases, cholecystitis or ischemic heart disease can masquerade as chest-wall pain. Ultrasound is frequently more helpful in women <30 years old with denser breasts, whereas abnormalities on mammography may be diagnostic at any age, depending on the findings. In the absence of a treatable lesion, dietary changes, increased breast support, or nonsteroidal anti-inflammatory drugs (NSAIDs) can be considered as first-line medical management.
4. In more severe cases of mastalgia, danazol (the only FDA-approved treatment) or tamoxifen should be considered, while recognizing their significant side effects and reproductive implications.

