

# BENIGN BREAST CONDITIONS IN YOUNG WOMEN

*Benign breast conditions in young women are more common than breast cancer.*

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'Young' shall be defined as less than 35 years of age. Benign breast changes fall into the following categories:

- congenital abnormalities
- developmental abnormalities
- infections
- mastalgia.

**Asymmetry of the breasts is usual. The left is usually bigger than the right.**

## Congenital abnormalities

### Extra nipples/breasts

Between 1% and 15% of the general population have an extra nipple or breast. The presence of an extra nipple is more common than an extra breast and may occur in males (Fig. 1) or females. They rarely require any attention and generally occur along the milk lines.



Fig. 1. Young male with accessory nipples.

### Absence or hyperplasia of the breast

Asymmetry of the breasts is usual. The left is usually bigger than the right. Pubertal males and females often present with a unilateral breast bud or asymmetrical development. Surgery should be avoided as the asymmetry will often resolve.

True absence of the breast is rare and is generally associated with absence of chest wall musculature.

Poland's syndrome includes absence of the breast, upper limb deformity and absence of the pectoral muscles.

### Aberration of development

Before puberty the breast is similar in males and females. Development begins around 10 years of age and is commonly asymmetrical. During development, abnormalities may occur in the stromal tissue (resulting in juvenile hypertrophy) or in the terminal duct unit (causing fibroadenoma).

The normal development of the breast may be classified into three stages: development, reproductive phase and involution.

Pregnancy causes the breast tissue to double in volume. Postpartum, the process of involution starts: the stromal tissue is replaced with fatty tissue and the breast becomes more ptotic. (In nulliparous women, the process generally starts in the mid-30s.)

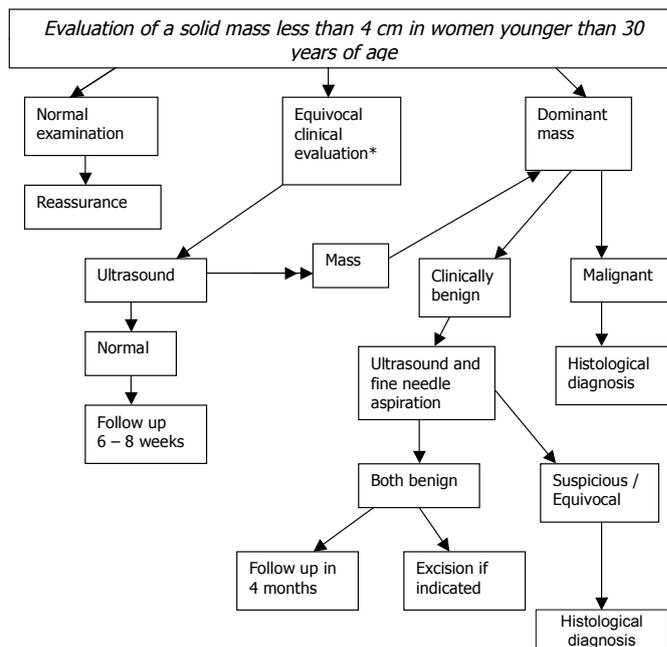
### Juvenile hypertrophy

Rapid breast growth during puberty is common and rarely requires intervention. True juvenile hypertrophy is rare and should be treated by reduction mammoplasty after development has finished.

### Fibroadenoma

The most important aspect of managing a fibroadenoma is the diagnosis. Of all symptomatic breast masses 13% are fibroadenomas, and they constitute 60% of all masses in those under 20 years of age. A new mass is more likely to be a malignancy than a fibroadenoma if a woman is older than 40. The differential diagnosis of a solid mass is a fibroadenoma, carcinoma or phyllodes tumour.

The evaluation of a solid mass is shown in Fig. 2.



\*Equivocal clinical evaluation: thickening/asymmetry on examination, clear history of change in the breast.

Fig. 2. Evaluation of a solid mass.

Histological diagnosis must be obtained in any patient older than 30 years or with a mass larger than 4 cm.

**Pregnancy causes the breast tissue to double in volume.**

Fibroadenomas arise within the lobule of the breast and not from a single cell. The natural history is for the mass to get smaller or calcify with time. During pregnancy, the mass increases in size with the rest of the breast.

## Benign breast conditions

Traditionally, fibroadenomas have been classified as juvenile, common or giant. The sub-classifications do not help with the management.

Fibroadenomas (once correctly diagnosed with a triple test or histologically) can be managed conservatively. They should be removed if:

- diagnosis is in doubt
- pregnancy is planned soon – many women find an enlarging mass in the breast disconcerting
- they are more than 4 cm: phyllodes tumours become a more common diagnosis
- they are painful.

This can generally be done through an areolar or axillary incision.

There has been an increasing move towards minimally invasive procedures and many centres have demonstrated that fibroadenomas can be removed percutaneously under local anaesthetic. However, many places in South Africa do not have the facilities for this procedure.

### Infections of the breast

Traditionally, it is taught that three groups of women get infections of the breast:

- smokers
- those with a malignancy or patients who are incorrectly diagnosed and have an inflammatory carcinoma, not an infection
- women who are lactating.

In South Africa, there is a large fourth group – those with HIV.

## Histological diagnosis must be obtained in any patient older than 30 years or with a mass larger than 4 cm.

### Smokers

Young women who smoke typically present with a retroareolar infection. In time, they may develop a periareolar fistula. The aetiology is not fully understood. The management is a terminal duct excision and removal of the fistula. The women should stop smoking before the procedure.

### Malignancy

Any infection should have a histological diagnosis (usually core biopsy). Inflammatory

carcinoma may be difficult to diagnose and is a clinical condition. Multiple biopsies may have to be taken to confirm the diagnosis. If it is still not clear, a lymph node biopsy may be considered.

### Lactating women

Lactating abscesses are common. Malignancy must be excluded. Many can be treated by aspiration (using a 15 g needle) under ultrasound guidance plus 5 days of antibiotics. More longstanding infections may need to be drained in the operating theatre.

## Lactating abscesses are common. Malignancy must be excluded.

### HIV-related infections

TB of the breast may be seen in association with HIV. Typically, the presentation is a recurrent abscess (see Fig. 3) or a painless cystic mass. Occasionally, an enlarged lymph node may be found in the breast.

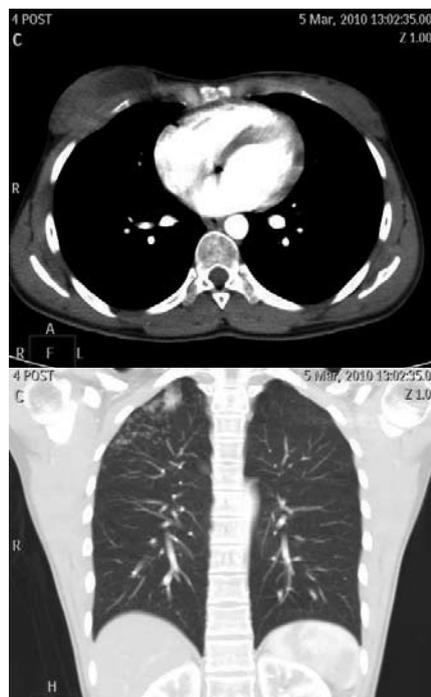


Fig. 3. CT scan and chest X-ray demonstrating TB in a young HIV-ve woman who presented with a 6-month history of repeated infections in her breast. There is a communication between the breast and the pleural cavity seen on the CT scan.

### Mastalgia

Mastalgia among young women is generally cyclical and can be treated conservatively. An estimated 40% of women wear an ill-fitting

bra. Many women will settle with a new bra and reassurance. Rarely, anti-inflammatories are necessary.

Further reading available at [www.cmej.org.za](http://www.cmej.org.za)

## IN A NUTSHELL

- Benign conditions in young women are more common than breast cancer.
- The majority of conditions require a diagnosis and not formal treatment.
- The diagnosis of a fibroadenoma should be confirmed, especially if the woman is older than 30 years.
- HIV may be associated with TB.
- Mastalgia can generally be managed with reassurance.

## SINGLE SUTURE

### Feel good, stay healthy

High self-esteem doesn't just feel good, it has physical benefits too, protecting the heart and the immune system.

Andy Martens and colleagues of the University of Canterbury in Christchurch, New Zealand, carried out experiments in which 184 participants were given feedback designed to raise or lower their self-esteem, or they rated their natural self-esteem for two weeks. The team analysed the activity of the participants' cardiac vagal tone – a measure of how strongly the parasympathetic nervous system (PNS) influences the heart.

Having higher self-esteem (natural or induced) correlated with higher vagal tone. This is good news because the PNS slows the heart – it dampens stress and controls inflammatory responses. An underactive PNS can lead to cardiovascular problems and autoimmune disease.

'Low self-esteem isn't just about feeling bad, it means that the body isn't functioning in a very healthy way, and this could have serious health implications down the road,' says Martens.

*New Scientist*, 16 October 2010, p. 17.