

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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و دانشیار دانشگاه علوم پزشکی قزوین

8/20/2022

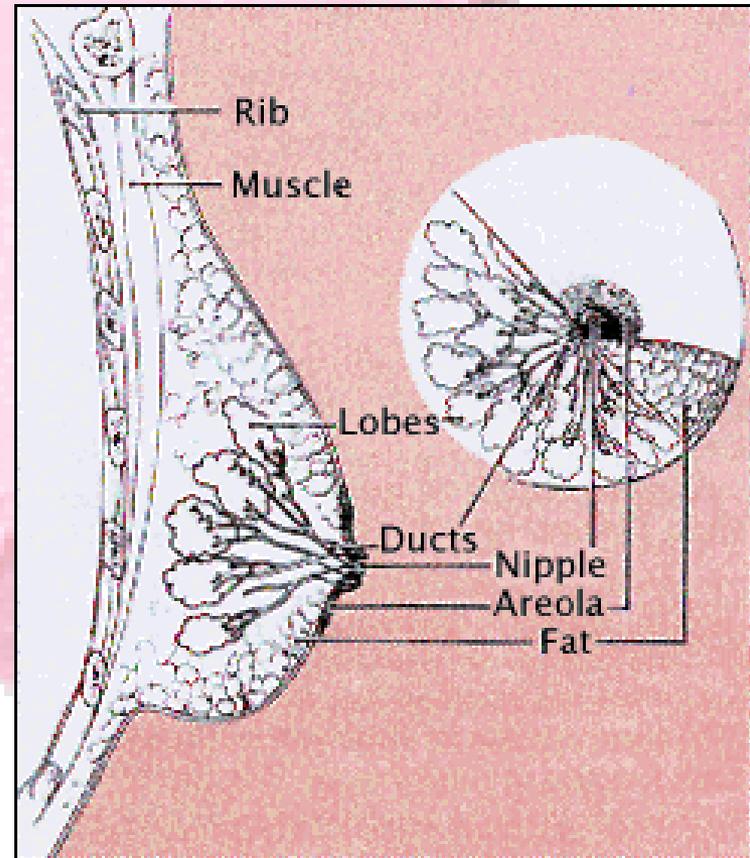


Breast Cancer



# Diagram of the Breast

- Ⓡ The breast is a glandular organ.
- Ⓡ It is made up of a network of mammary ducts.
- Ⓡ Each breast has about 15-20 mammary ducts that lead to lobes that are made up of lobules.
- Ⓡ The lobules contain cells that secrete milk that are stimulated by estrogen and progesterone which are ovarian hormones.





**What exactly is Breast  
Cancer?**

# What is Cancer?

- ⌘ Cancer involves the abnormal multiplication and spread of cells in the body.
- ⌘ It is usually caused by mutations in somatic cell genes that regulate cell growth.
- ⌘ Almost every tissue in the body can produce cancer; some even generate many different types of cancer.
- ⌘ However, cancer mostly occurs in cells that divide and reproduce more than other cells.

# More on Cancer

- ⌘ Typical cells in the body multiply only when they are told to do so by genes or other cells in **their surrounding area**.
- ⌘ Cancer cells **disregard the usual control** on production and follow their own internal plan for reproduction.
- ⌘ Cancer cells also have the ability to migrate from one site in the body where they began and invade other tissues to form tumors at other sites inside the body. This is called **metastasis**.
- ⌘ The change of a cell into cancer comes about through the **accumulation of mutations** in the specific classes of genes within it or other outside environmental factors.

# Breast Cancer

⚡ Breast Cancer occurs when a mutation takes place in the cells that line the lobules that manufacture milk or more commonly in the ducts that carry it to the nipple.

⚡ The area around the **center of the breast** is where most cancers occur.

⚡ It is fairly rare for cancers to form in the **fat** or non-glandular tissues of the breast.

# Breast Cancer Statistics

- Ⓜ Every three minutes, a woman in the United States is **diagnosed** with breast cancer.
- Ⓜ Every twelve minutes a woman **dies** from breast cancer.
- Ⓜ This year, approximately 182,800 women in the United States will be diagnosed with invasive breast cancer.
- Ⓜ Approximately 40,800 women will die from breast cancer.
- Ⓜ No one dies of cancer in the breast, only of cancer that has **spread to other parts** of the body.

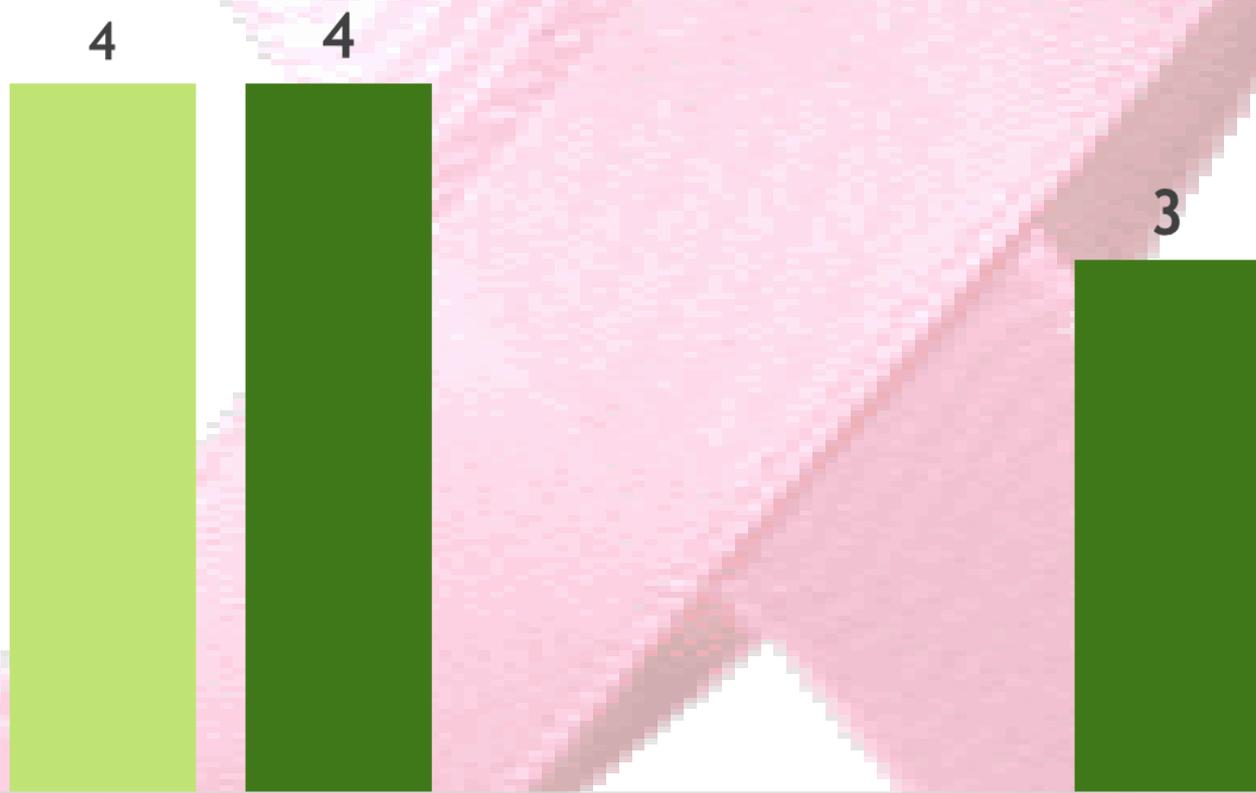
# شیوع سرطان پستان

❖ شیوع آن در جهان روبه افزایش بوده و در ایران نیز افزایش نگران کننده ای در بروز سرطان پستان مشاهده شده است.

❖ براساس گزارش پروژه طرح ملی ثبت سرطان ، سرطان پستان اولین سرطان رایج و اولین علت مرگ ناشی از سرطان در زنان است. 4/ 25% کل سرطان زنان ساکن تهران از نوع سرطان پستان است و میزان بروز آن 22/ 4% درصد هزار و میزان مرگ ناشی از آن 5/8% صد هزار محاسبه و گزارش گردیده است.

❖ در ایران سرطان پستان 21/4% از کل موارد گزارش شده سرطان را تشکیل می دهد میزان خام بروز سرطان پستان در ایران معادل 22/4% در هر 100000 زن برآورد شده و داده های موجود حکایت از آن دارد که بیماری در ایران روند افزایشی در پیش گرفته و از سال 1378 به بعد مقام اول را در بین سرطان های ثبت شده در کشور دارد

# رتبه سرطان پستان به عنوان علت مرگ زنان در سال ۹۴ و ۹۵ در کشور و استان قزوین

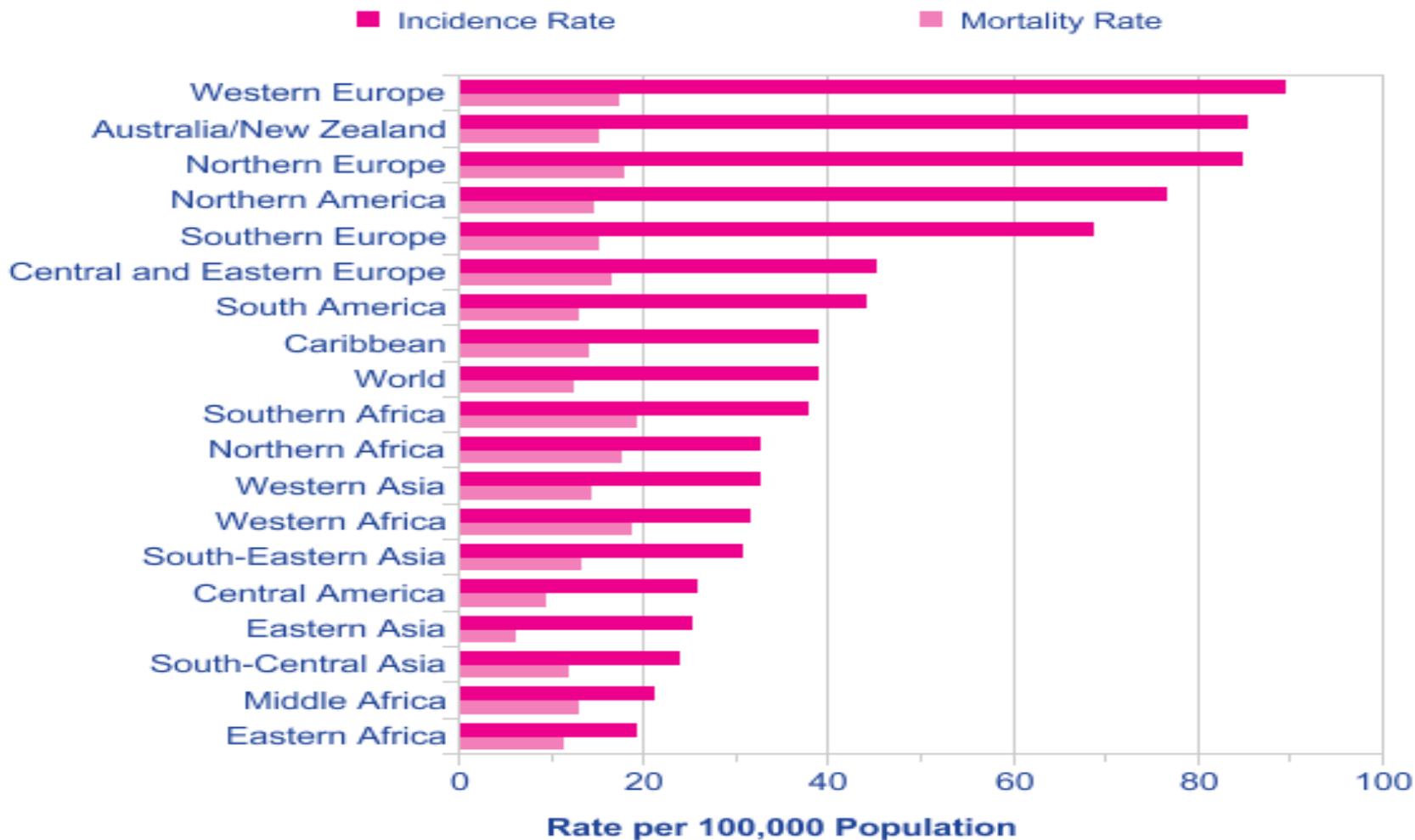


سال ۹۴

کشور استان

سال ۹۵

# Breast (C50): 2008 Estimates World Age-Standardised Incidence and Mortality Rates per 100,000 Population, Females, World Regions



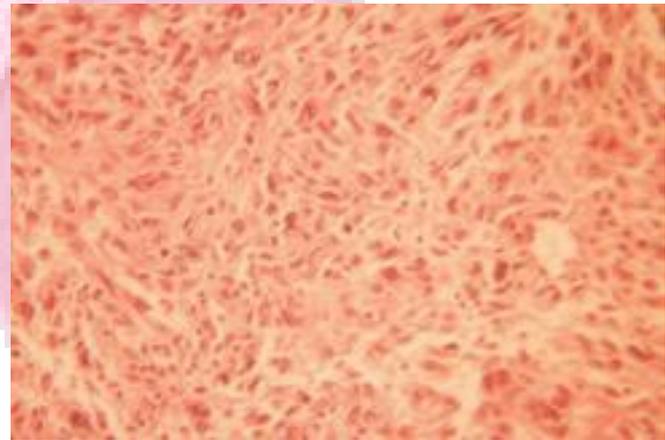


**How does someone get  
Breast Cancer?**

The causes of breast cancer are not completely understood and are not set in stone. But certain women are more susceptible of developing one form of cancer.

<http://www.cancerbacup.org.uk/info/brest/brest-5.htm>

This is a picture of breast cancer cells.



<http://www.photostogo.com/store/search.asp?SearchStr=cancer>

# Causes

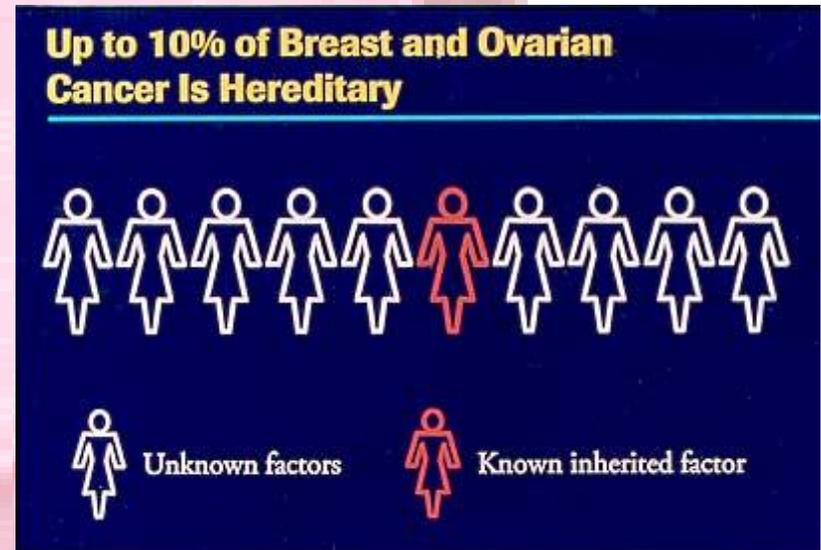
 **Inherited**

 **Risk Factors**

 **Environmental Factors**

# Inherited Breast Cancer

- Between 5-10% of breast cancer is inherited from a family member.
- This means that the majority of women that are diagnosed with breast cancer **do not have the genetic mutation.**
- Research has suggested women who are diagnosed with breast cancer at a young age (**less than 45**) usually inherited.



This figure shows that one out of every 10 women will obtain breast cancer by inheriting a gene from a family member.

[http://www.breastdoc.com/My\\_Breast\\_Health/Breaking\\_News/Inherited\\_Breast\\_Cancer/inherited\\_breast\\_cancer.html](http://www.breastdoc.com/My_Breast_Health/Breaking_News/Inherited_Breast_Cancer/inherited_breast_cancer.html)

# Inherited Genes

- 🎗️ BRCA1 (Breast Cancer 1)
- 🎗️ BRCA2 (Breast Cancer 2)
- 🎗️ TP53 gene
- 🎗️ ATM gene

# BRCA 1 and BRCA 2

- ⌘ Both of these genes code for DNA repair.
- ⌘ If a woman has a mutation on either one of these genes, the risk of her getting breast cancer increases **from 10% to 80%** in her lifetime.
- ⌘ Mutations in BRCA1 or BRCA2 account **for 40-50%** of all cases of inherited breast cancer.
- ⌘ These genes are also associated **with ovarian cancer in women and prostate cancer in men.**
- ⌘ These genes can be inherited either from the **mother or the father.**

# Other Inherited Genes that cause Cancer

## ⚡ TP53 gene

- ⚡ This gene codes for the tumor suppressor protein p53.
- ⚡ Mutations of this gene cause **Li-Fraumeni** syndrome, which is a condition that is associated with early onset breast cancer.

## ⚡ ATM gene

- ⚡ Females with one defective copy of the ATM gene and one normal copy of the gene are at increased risk for breast cancer.

# Risk Factors that cause Breast Cancer

## 🎗️ Factors that Cannot be Prevented

- 🎗️ Gender
- 🎗️ Aging
- 🎗️ Genetic Risk Factors (inherited)
- 🎗️ Family History
- 🎗️ Personal History
- 🎗️ Race
- 🎗️ Menstrual Cycle
- 🎗️ Estrogen

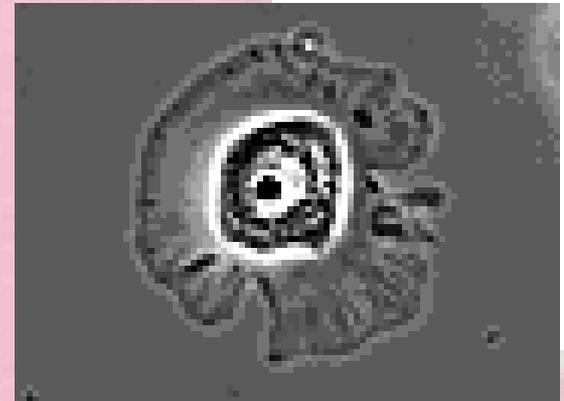
## 🎗️ Lifestyle Risks

- 🎗️ Oral Contraceptive Use
- 🎗️ Not Having Children
- 🎗️ Hormone Replacement Therapy
- 🎗️ Not Breast Feeding
- 🎗️ Alcohol Use
- 🎗️ Obesity
- 🎗️ High Fat Diets
- 🎗️ Physical Inactivity
- 🎗️ Smoking

# Environmental Factors

- ⌘ Exposure to Estrogen
- ⌘ Radiation
- ⌘ Electromagnetic Fields
- ⌘ Xenoestrogens
- ⌘ Exposure to Chemicals

This is a Breast  
Cancer Cell



<http://www.cellsalive.com/stock4.htm>



# Types of Breast Cancer

# In Situ Breast Cancer

- ⌘ In Situ Breast Cancer remains within the **ducts or lobules** of the breasts.
- ⌘ This type of cancer is only detected by **mammograms** - not by a physical examination.
- ⌘ If the cancer is in the duct it is called **Ductal Carcinoma in situ**.
- ⌘ If the cancer is in the lobule of the breast, it is called **Lobular Carcinoma in situ**.
  - ⌘ This type of cancer is most common among **pre-menopausal** women.
  - ⌘ There is also a slight chance that if a woman has this type of cancer she is at risk that it would occur in the other.

# Infiltrating Breast Cancer



Breast cancer cells cross the lining of the milk duct or lobule, and begin to invade adjacent tissues. This type of cancer is called "infiltrating cancer." In this picture, you can see the breast cancer cells invading the milk duct.  
<http://www.bcdg.org/>

- ⚡ Breast cancer is considered **infiltrating or invasive** if the cancer cells have penetrated the membrane that surrounds a duct or lobule.
- ⚡ This type of cancer forms a lump that can eventually be felt by a physical examination.

# More on Infiltrating Breast Cancer

## ♀ Infiltrating cancer of the duct

- ♀ Called "Infiltrating Ductal Carcinoma"
- ♀ It is the most common type of breast cancer.
- ♀ Cancer cells that are invading the **fatty tissue** around the duct, they stimulate the growth of non-cancerous scar like tissue that surrounds the cancer making it easier to spot.

## ♀ Infiltrating cancer of the lobules

- ♀ Called "Infiltrating Lobular Carcinoma"
- ♀ Occurs when cells stream out in **a single file** into the surrounding breast tissue.
- ♀ This type of cancer is **harder to detect on a mammogram** because there is no fibrous growth.

# Other Types of Breast Cancer

⌘ Cystosarcoma Phyllodes

⌘ Inflammatory Cancer

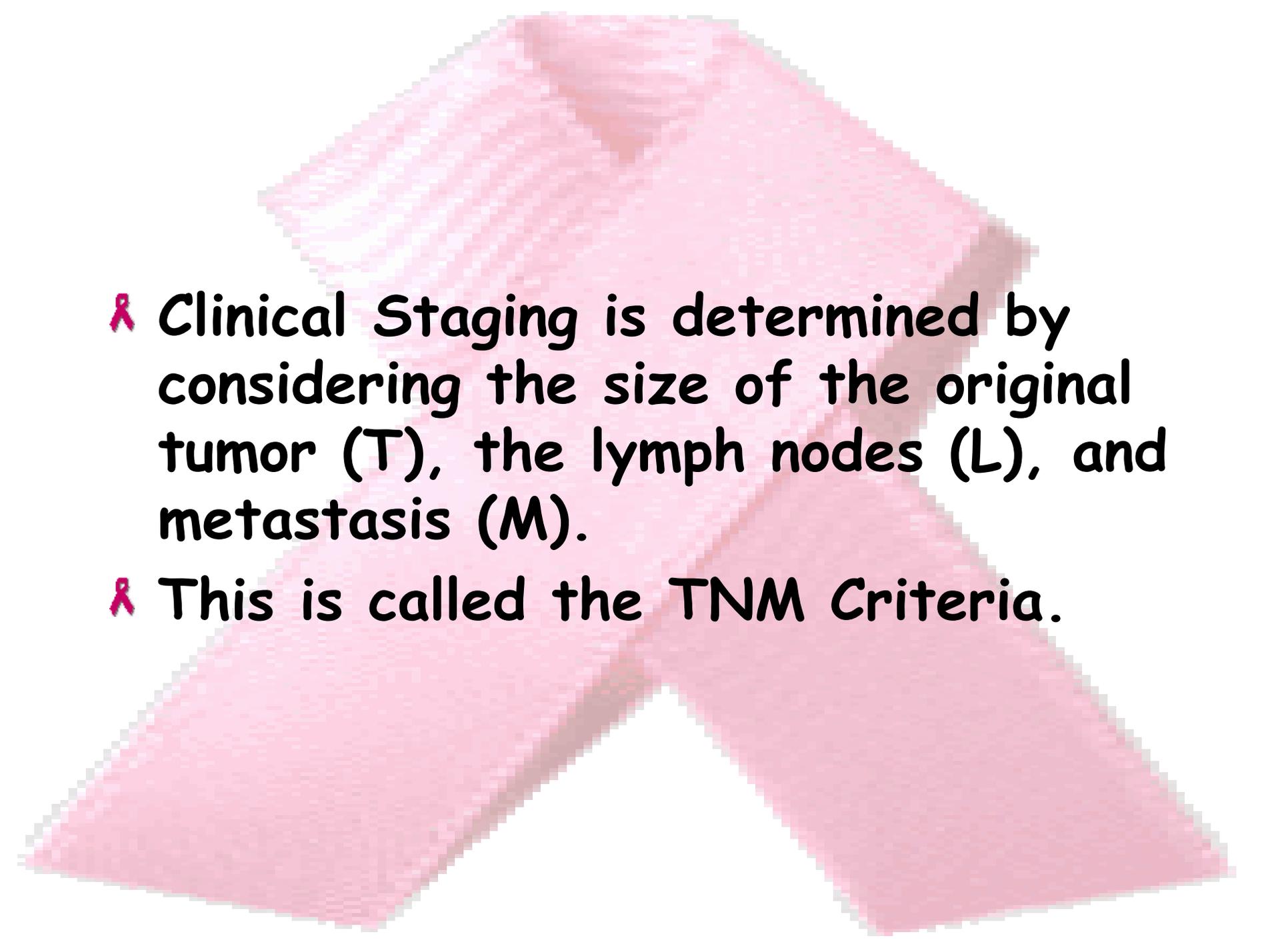
⌘ Accounts for less than **one percent of** all breast cancers and looks as though the breast is infected.

⌘ Breast Cancer During Pregnancy

⌘ Paget's Disease



# **Clinical Stages of Breast Cancer**

- 
- ⚡ **Clinical Staging is determined by considering the size of the original tumor (T), the lymph nodes (L), and metastasis (M).**
  - ⚡ **This is called the TNM Criteria.**

# TNM Criteria

## ⌘ T = Primary Tumor

⌘ Tis = carcinoma in situ

⌘ T1 = less than 2 cm in diameter

⌘ T2 = between 2 and 5 cm in diameter

⌘ T3 = more than 5 cm in diameter

⌘ T4 = any size, but extends to the skin or chest wall

## ⌘ N = Regional Lymph nodes

⌘ N0 = no regional node involvement

⌘ N1 = metastasis to movable same side axillary nodes

⌘ N2 = metastasis to fixed same side axillary nodes

⌘ N3 = metastasis to same side internal mammary nodes

## ⌘ M = Distant Metastasis

⌘ M0 = no distant metastasis

⌘ M1 = distant metastasis

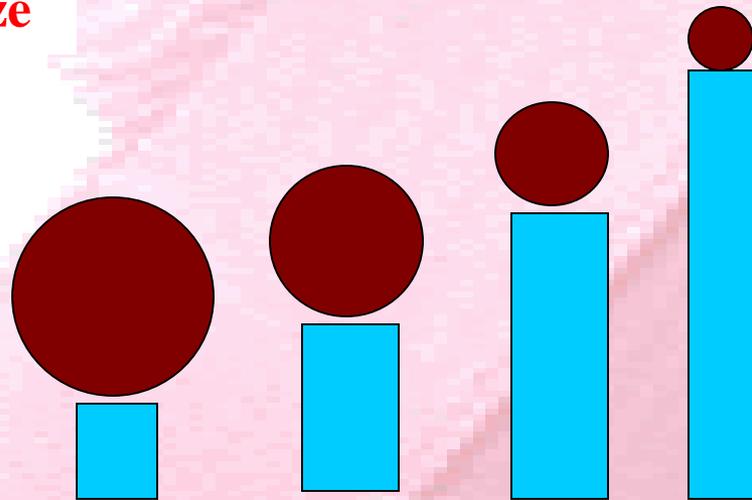
# Clinical Staging

Table taken from How to Prevent Breast Cancer, page 37.

	T	N	M	5-Year Survival
Stage 0	Tis	N0	M0	> 95%
Stage I	T1	N0	M0	Overall = 85%
Stage II				Overall = 66%
(Stage IIA)	T0	N1	M0	
	T1	N1	M0	
	T2	N0	M0	
(Stage IIB)	T2	N1	M0	
	T3	N0	M0	
Stage III				Overall = 41%
(Stage IIIA)	T0	N2	M0	
	T1	N2	M0	
	T2	N2	M0	
	T3	N1, N2	M0	
(Stage IIIB)	T4	Any N	M0	
	Any T	N3	M0	
Stage IV	Any T	Any N	M1	Overall 10%

# The Effect of Tumor Size on Survival

**Tumor Size**



As tumor size increases, the chance of survival decreases.

**Survival**





**How do you detect Breast  
Cancer?**

# Breast Self Examination

- Here is a link that will show exactly how to perform a breast self examination.

- <http://www.infobreastcancer.cyberus.ca/bse2.htm> - bse2

- This test should be performed once every month.

# Mammogram

- ⌘ A Mammogram is a X-ray of the breast that takes pictures of the fat, fibrous tissues, ducts, lobes, and blood vessels.
- ⌘ When should a mammogram be performed?
  - ⌘ If a lump has been found **during self-examination** or by a physician
  - ⌘ Younger women who have a strong **history of breast cancer** in their family
  - ⌘ All women **over forty**
  - ⌘ Women who have had **previous diagnosis** of breast cancer.



<http://www.photostogo.com/store/search.asp?SearchStr=cancer>

# Other Forms of Detection

- ⌘ Sonogram
- ⌘ Thermography
- ⌘ Transillumination
- ⌘ Xeromammography
- ⌘ Cat Scan
- ⌘ MRI
- ⌘ Biopsy



# Treatments of Breast Cancer

There is no "cure" for breast  
cancer.

# Treatment of Breast Cancer

- 🎗️ Chemotherapy
- 🎗️ Radiation Therapy
- 🎗️ Drugs
- 🎗️ Surgery

# Chemotherapy

- ⌘ Chemotherapy works by **destroying cells** that are dividing and multiplying all the time.
- ⌘ Chemotherapy is used for treatment of breast cancer because there is a possibility of the cancer to **spread to other parts of the body**.
- ⌘ Chemotherapy works better for **premenopausal** women.
- ⌘ Systemic chemotherapy can prevent the spread of cancer.
- ⌘ Chemotherapy drugs are administered intravenously.

# Radiation

- ⌘ Radiation, at **high energy levels**, has the ability to destroy what is in its path, including normal and abnormal cells
  - ⌘ Fortunately new technologies have found a way to **battle cancer** with radiation.
- ⌘ Radiation usually destroys rapidly dividing cancerous cells.
  - ⌘ **Normal cells have the ability to repair themselves.**

# Drugs

- ⌘ Usually drugs used to **battle cancer** are taken while receiving some other type of treatment.
- ⌘ Most of the time as well, **three or four** drugs are used at the same time, so there is an overlapping effectiveness.
- ⌘ There are four drugs that are commonly used to battle breast cancer.

# Types of Drugs used to Treat Breast Cancer

## ⌘ Alkylating Agents

⌘ Cytosine

⌘ These types of drugs usually damage the programs that control the **growth in tumor** cells.

## ⌘ Antimetabolites

⌘ Methotrexate & 5-fluorouracil

⌘ This type of drug interferes with the making of nucleotides, which are the **substances that make up DNA**.

## ⌘ Natural Products

⌘ Vincristine (Oncovin and vinblastine (Velban) come from the periwinkle plant.

⌘ These drugs interfere with cell structure as well as cell division.

## ⌘ Hormones

⌘ Prednisone

⌘ Hormones affect the growth of hormones and usually enhances the effects of other cytotoxic drugs.

# Surgery

## 🎗 Mastectomy

🎗 A mastectomy is the surgical removal of the breast, non-protruding breast tissue, the lymph nodes in the armpits and some pectoral muscle.

🎗 **Breast reconstruction** surgery may be conducted after the removal of the breast.

## 🎗 Lumpectomy

🎗 In this surgical procedure, the breast is conserved and the tumor is removed.

🎗 Radiation commonly follows a lumpectomy to try to rid the body of any other cancerous cells.



# **Psychological Impacts of Breast Cancer**

# What do Patients Go Through After Diagnosis?

- ⌘ Depression
- ⌘ Anxiety
- ⌘ Hostility
- ⌘ Fear
- ⌘ Changes in life patterns due to discomfort and pain
- ⌘ Marital/sexual disruptions
- ⌘ Reduction of activities
- ⌘ Panic
- ⌘ Guilt
- ⌘ Difficulty adapting to illness
- ⌘ Overwhelmed
- ⌘ Disappointment

# Reoccurrences of Breast Cancer

## 🎗️ Reoccurrences

- 🎗️ Personal Responsibility
- 🎗️ Loss of Hope
- 🎗️ Denial
- 🎗️ Grief

## 🎗️ Therapies

### 🎗️ Group Therapies

- 🎗️ Single session groups
  - 🎗️ Time limited groups
  - 🎗️ Long Term groups
  - 🎗️ Traditional
- ### 🎗️ Single session with psychologists



**Prevention**

# Fat

- ⚡ Research shows that dietary fat should be 20% or less in order to gain meaningful protection against cancer.
- ⚡ Fat cells make estrogen, which promotes breast cancer.
- ⚡ Diets high in fat are associated with the increasing breast density in mammograms, which makes interpretation more difficult.

# Fiber

- ⚡ Fiber provides protection against breast cancer because it has a mechanism that decreases the amount of estrogen in the body.
- ⚡ The amount of fiber in the diet affects the activities of intestinal bacteria, which affects the amount of reabsorbed estrogens.

# Antioxidant Nutrients

- Ⓜ Antioxidants are important in fighting breast cancer because they can disarm cancer-causing substances called free radicals.
- Ⓜ Vitamin C
- Ⓜ Vitamin E
- Ⓜ Beta-carotene
- Ⓜ Vitamin A
- Ⓜ Selenium

# Other Preventative Measures

Early Detection!!!!

Exercise

No Smoking!!

Good Diet

# Prevention Table

## Recommendations for Women of Different Ages.

<b>Age</b>	<b>Recommendation</b>	<b>Benefit</b>
<b>Under Age 40</b>	<ul style="list-style-type: none"><li>• Breast exam by doctor</li></ul>	No data
<b>Age 40 to 49</b>	<ul style="list-style-type: none"><li>• Breast exam by doctor</li><li>• Mammogram every 1 to 2 years</li></ul>	May reduce your chances of dying from breast cancer by about 17 percent
<b>Age 50 or Over</b>	<ul style="list-style-type: none"><li>• Breast exam by doctor</li><li>• Mammogram every 1 to 2 years</li></ul>	May reduce your chances of dying from breast cancer by about 30 percent

This table shows the recommendations and benefits of these recommendations by age to prevent breast cancer from occurring.

[http://rex.nci.nih.gov/MAMMOG\\_WEB/PUBS\\_POSTERS/FACTS\\_BC.html](http://rex.nci.nih.gov/MAMMOG_WEB/PUBS_POSTERS/FACTS_BC.html)

# Reoccurring Breast Cancer?

- An article from the National Cancer Institutes states a reason why breast cancer reoccurs in some women because physicians are not performing enough follow-up testing for early-stage breast cancer.
- It stated that 85% of all metastatic cancer was detected by history and physical exams; therefore physicians should see patients that are in remission from breast cancer every 3 to 4 months.
- This is a good example of early detection is the best way to prevent cancer from reoccurring!!!



**New Technologies**

# New Probe

- ⌘ The Smart Probe, created by BioLuminate, Inc. was designed for use after a mammogram identifies a suspected area of concern.
- ⌘ It consists of a small needle that is inserted into the breast tissue that looks for multiple known indicators of breast cancer.
- ⌘ Advantages: it gathers information the moment it is inserted and provides instantaneous results.
- ⌘ It is about 80% accurate and more cost effective.

# New Test that Differentiates between Breast Cancer Types

- ⌘ This new test created by the National Institute of Health can distinguish between hereditary and sporadic forms of breast cancer.
- ⌘ This new technique uses a DNA chip called a microarray that contains fluorescent labels. These labels light up revealing the higher activity level of the gene.

# Breast cancer

دانشگاه علوم پزشکی قزوین - معاونت

بهداشتی

گروه سلامت جمعیت و خانواده

برنامه سلامت میانسالان

# تشخیص زودهنگام و غربالگری

غربالگری؛

اقدام برای تشخیص زودتر  
بیماری

در افراد بی علامت

تشخیص زودهنگام؛

اقدام برای تشخیص  
زودتر بیماری

در افراد علامت دار

# اصول خودمراقبتی سرطان پستان (علل سرطان پستان و راه های پیشگیری)

## علل قابل اصلاح سرطان پستان

- نمایه توده بدنی (BMI) بالای ۳۰
- الکل
- سن بالای مادر در زمان اولین تولد
- مواجهه با اشعه
- قرص های ضدبارداری خوراکی
- هورمون درمانی جایگزین HRT

## علل غیر قابل اصلاح سرطان پستان

- سن بالا
- سابقه خانوادگی و جهش های ژنی (احتمال وجود ژن BRCA1 / BRCA2)
- سن قاعدگی کمتر از ۱۱ سال
- سن یائسگی بالای ۵۴ سال
- زمینه ی نژادی و قومی

## ۲ روش برای تشخیص زودرس سرطان پستان :

▶ خود آزمایی پستان :

از سن ۲۰ سالگی به صورت ماهیانه

▶ انجام معاینه بالینی سالیانه :

از ۳۰ سالگی توسط ماما و پزشک

## خود آزمایی پستان شامل دو قسمت است :

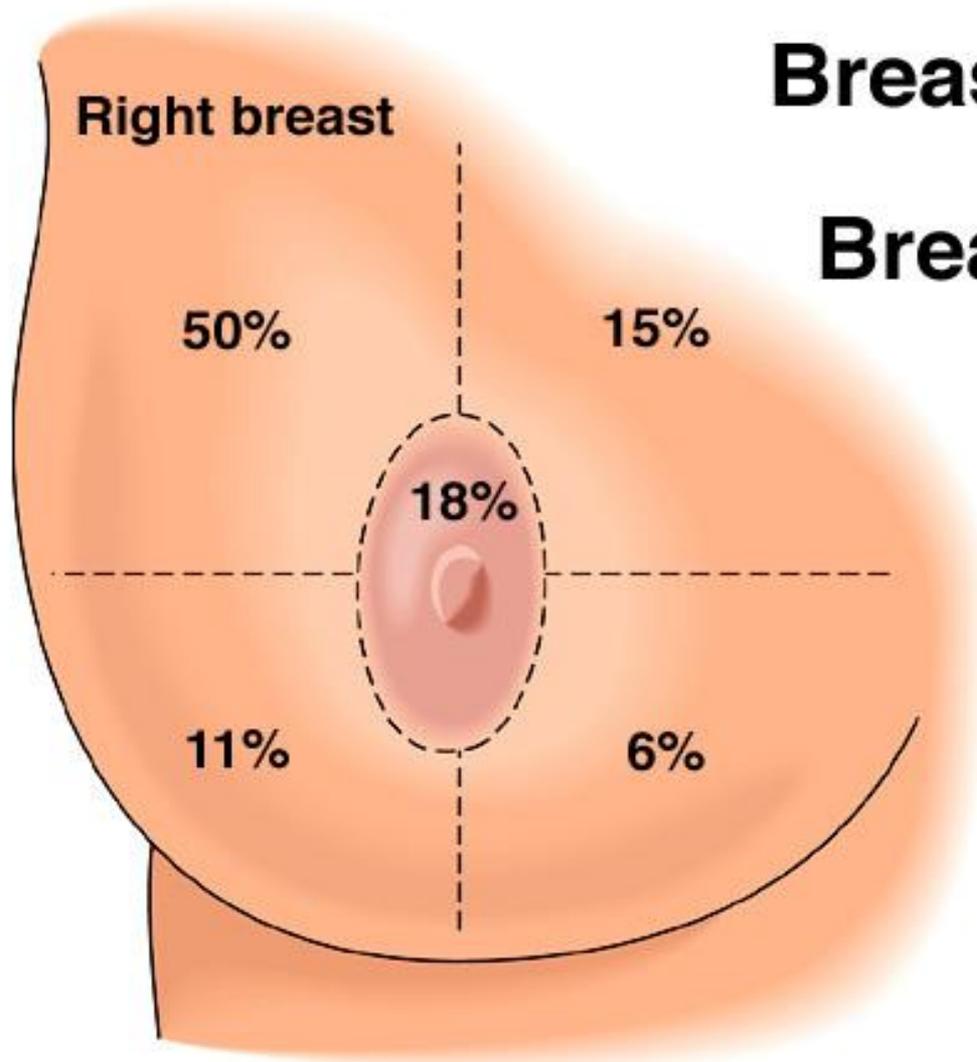
- ۱ - نگاه کردن به پستانها در جلوی آینه
- ۲ - لمس کامل پستانها

باید به طور کامل و به ترتیب انجام شود

بهترین زمان برای انجام خود آزمایی ماهانه پستان

۲ الی ۳ روز پس از قطع خونریزی عادت ماهیانه است .

# Breast Quadrants and Breast Cancers





**در خود آزمایی سینه به دنبال چه هستیم ؟**

## در مشاهده سینه :

□ تغییرات غیرطبیعی اخیر:

✓ شامل فرورفتگی های کوچک یا بزرگ در پوست پستان

✓ توکشیدگی نوک پستان

✓ زخم پوست یا نوک پستان

✓ قرمزی و پوسته پوسته شدن و خارش نوک و هاله

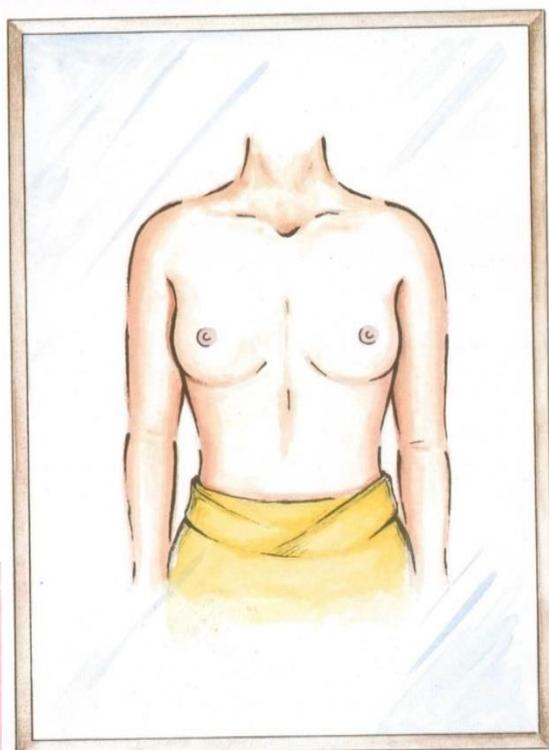
اطراف پستان

✓ قرمز و متورم شدن پستان و تغییرات پوست پرتقالی

## در لمس سینه:

- لمس هرگونه سفتی و توده
- دوشیدن نوک پستان و وجود ترشح (ترشح نوک پستان که دارای هر یک از خصوصیات زیر باشد):
  - ✓ از یک پستان باشد (و نه هر دو پستان)
  - ✓ از یک مجرا باشد (و نه از چند مجرا)
  - ✓ ترشح خود به خودی و ادامه دار باشد
  - ✓ در هنگام معاینه ترشح وجود داشته باشد
  - ✓ سروزی یا خونی باشد

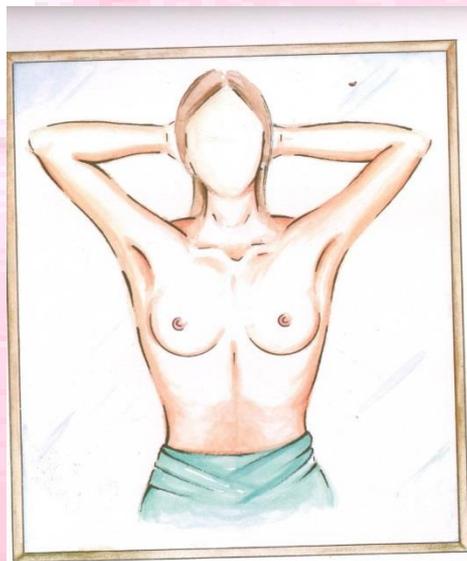
# نگاه کردن جلوی آینه



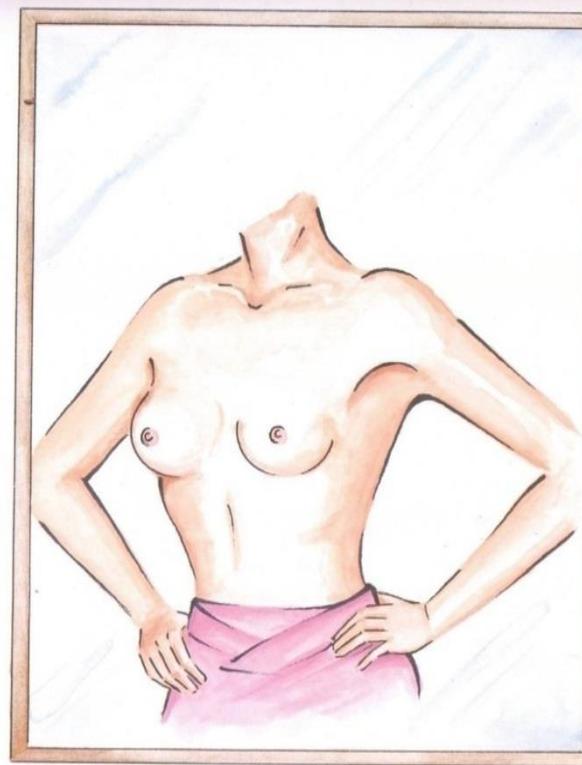
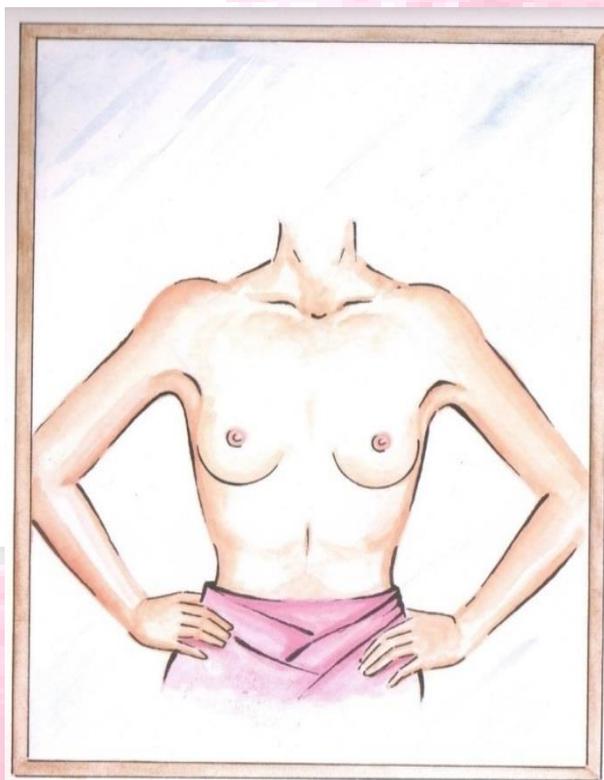
**در این حالت به پستانها از نظر وجود فرورفتگی پوست و  
توکشیدگی نوک پستانها توجه کنید**



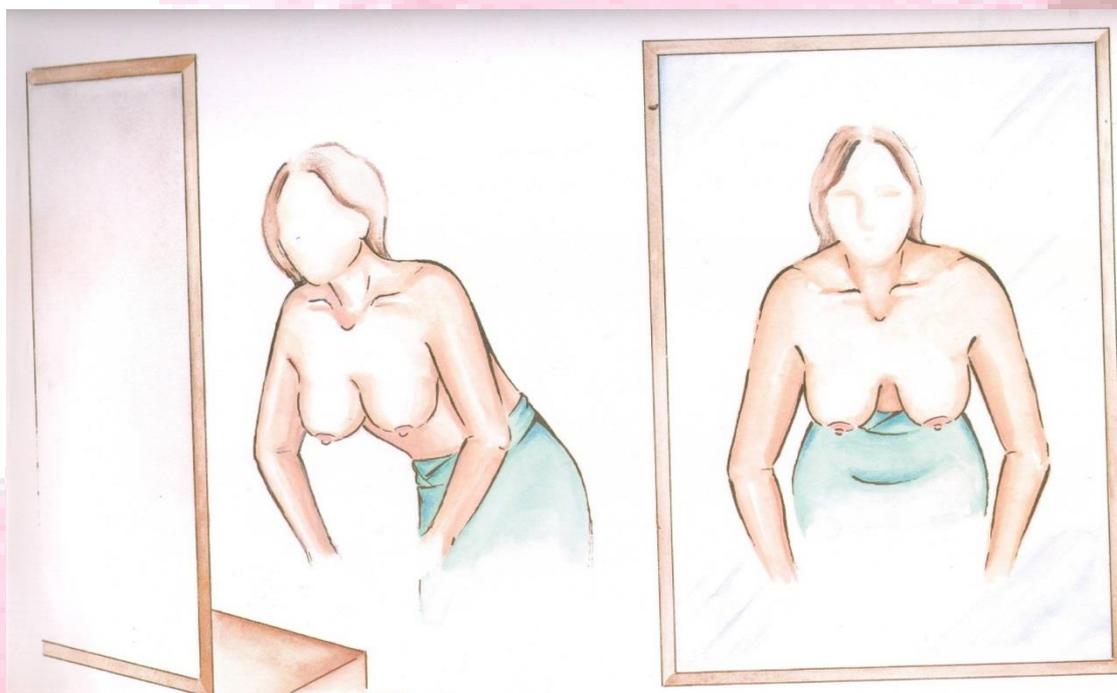
**در این حالت دستها را پشت سر به هم قفل کرده و شانه ها را به عقب بکشید و آنها را از نظر هر کدام از تغییرات بررسی کنید .**



**دستها را بر روی کمر فشار داده و شانه ها را به عقب بکشید و در این حالت  
پستانهای خود را بررسی کنید .**

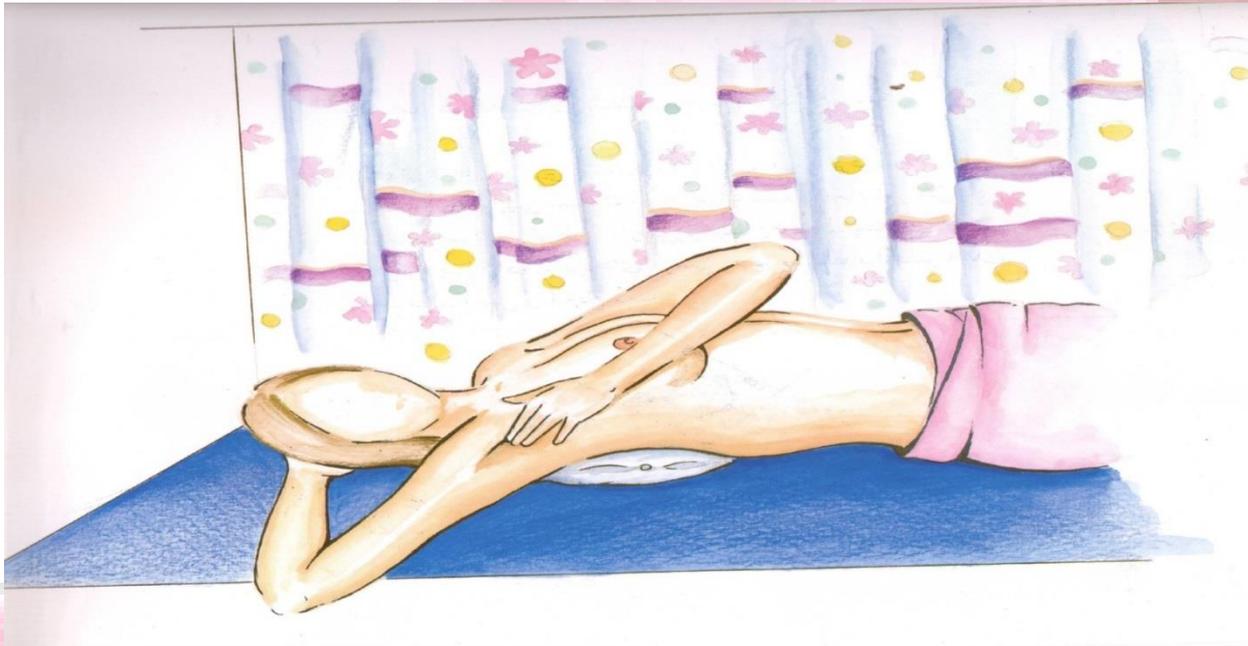


**خم شوید دستها آویزان در دو طرف تنه قرار دهید و در آینه به ظاهر پستانها به دقت نگاه کنید**

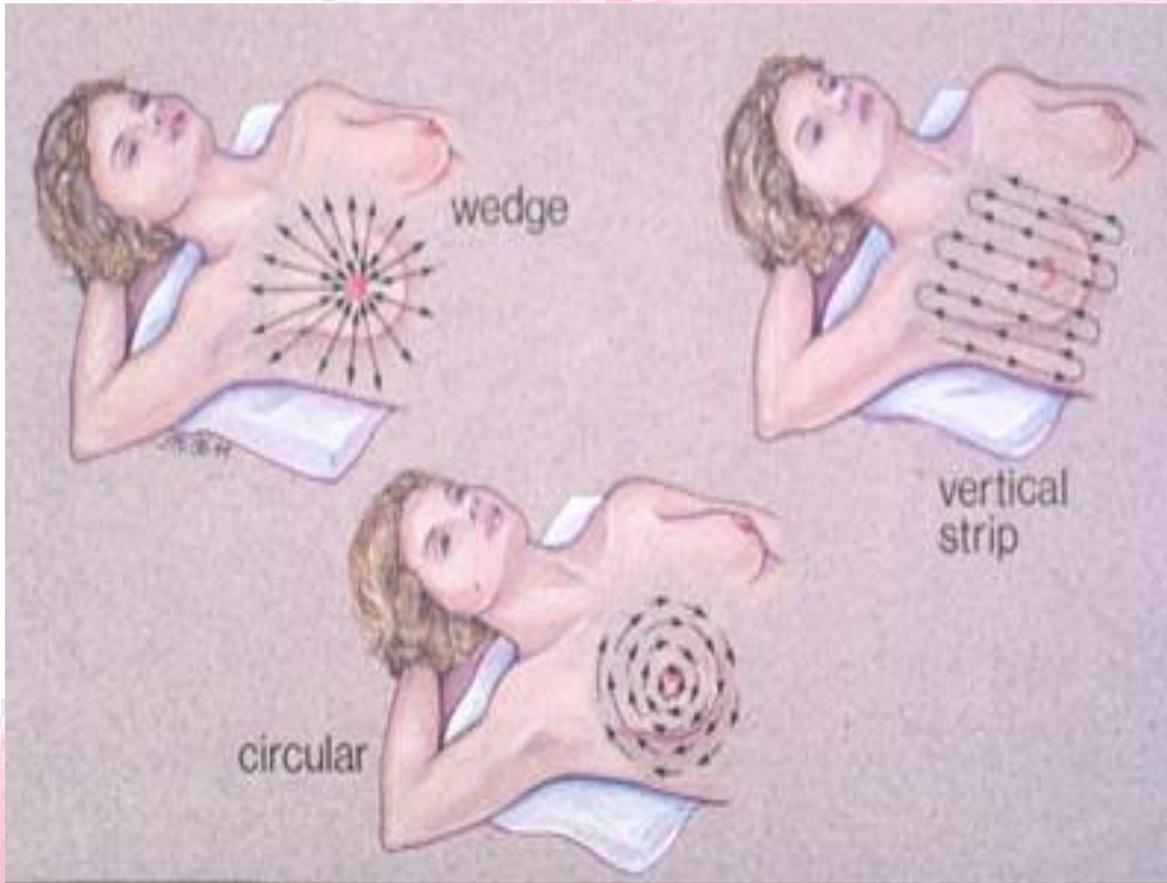


## لمس کردن :

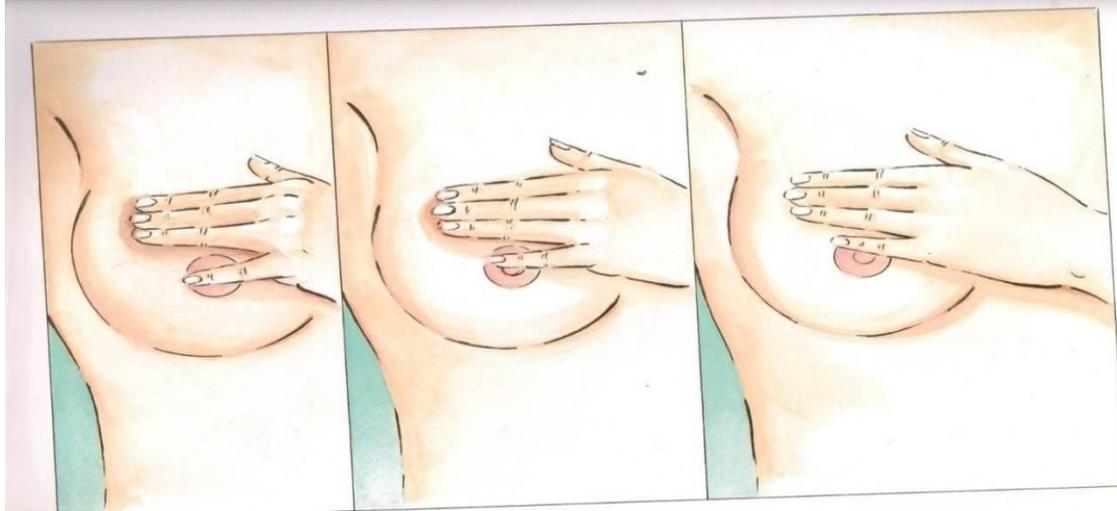
از نرمه انگشتان استفاده شود ، بافت پستان را بین پوست و دنده ها فشار دهید و پوست را روی بافت سینه بغلطانید .



# الگوهای معاینه پستان (عمودی - دوار - شعاعی)

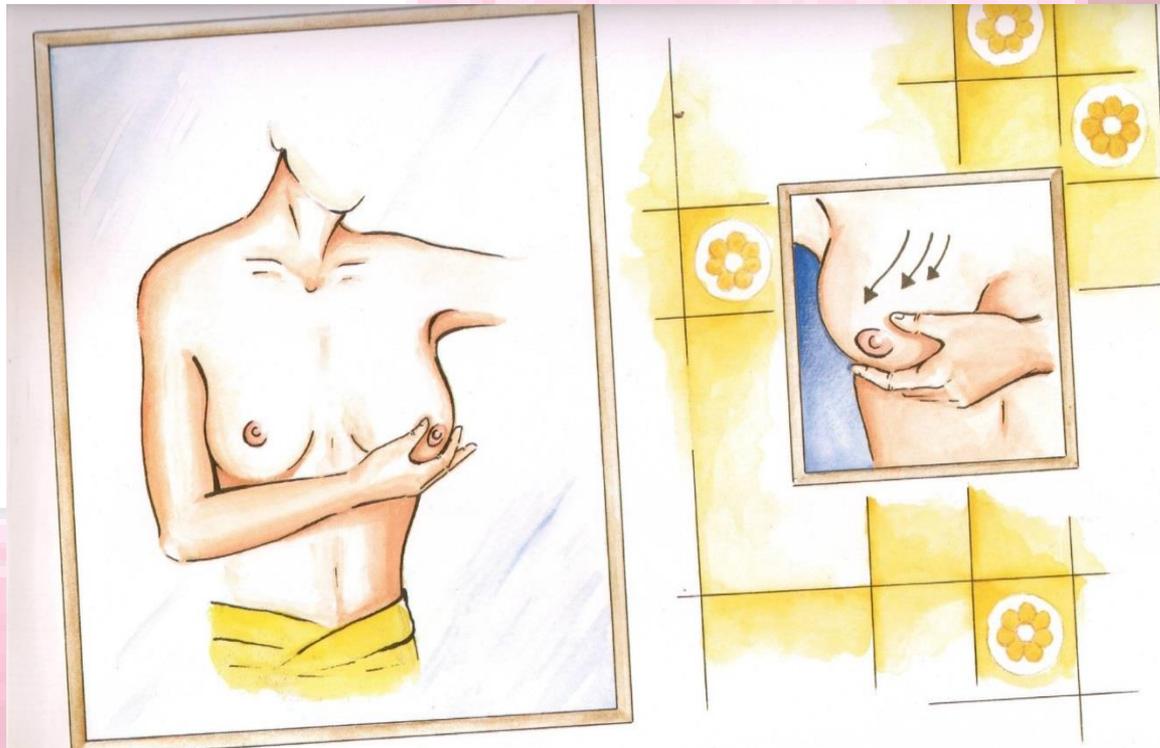


در این حالت قسمتهای سطحی و عمیق پستان معاینه می شود



از اطراف پستان به طرف نوک پستان در دایره های فرضی هم جهت با عقربه های ساعت

ابتدا هر قسمت پستان را بانر مه انگشتان و با فشار آرام معاینه کنید .  
سپس همان قسمت را بین سطح انگشتان و قفسه سینه فشار بیشتری داده  
و معاینه کنید . با این روش هم قسمت‌های سطحی و هم قسمت‌های عمقی  
پستان معاینه می شوند .



# تغییرات پستان سرطانی

**توکشیدگی پستان که در هنگام بالا نگه داشتن دستها نمایان می شود**



# توکشیدگی نیپل



# متورم شدن پستان و تغییرات پوست پر تقالی



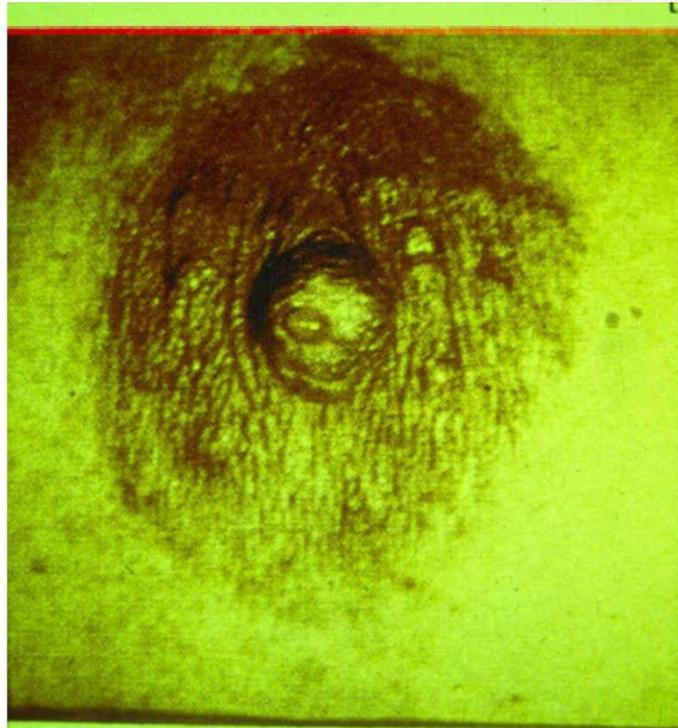
**Figure 1.** Initial photo of 45-year-old woman (T.N.) presenting with swelling, pain, skin changes, and redness of the right breast. Symptoms had persisted for 2 weeks.



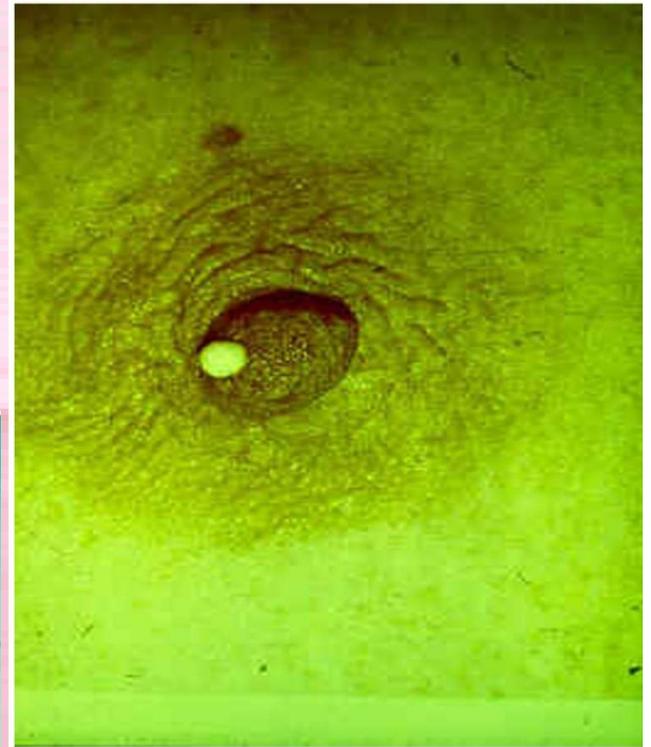
# قرمز و متورم شدن پستان



ترشحات سروزی



ترشحات چرکی



ترشحات خونی



## تشخیص زودهنگام سرطان پستان (گام اول ماما)

### شرح حال و معاینه

- **سابقه خانوادگی سرطان پستان یا تخمدان ؟**
- ✓ دست کم دو فامیل با سرطان پستان در یک سمت فامیل با هر سنی
- ✓ دست کم دو فامیل با سرطان در یک سمت فامیل با هر سنی که یکی از آنها سرطان پستان باشد
- ✓ دست کم یک فامیل با سرطان تخمدان در یک سمت فامیل با هر سنی
- ✓ یک فامیل درجه یک، دو یا سه با سرطان پستان یا هر سرطان دیگری در سن زیر ۵۰ سال
- **سابقه فردی سرطان پستان ؟**
- **سابقه بیوپسی پستان ؟**
- **سابقه رادیوتراپی قفسه سینه ؟**

# تشخیص زودهنگام سرطان پستان گام دوم (ارجاع در صورت نیاز)

## اقدامات تخصصی

■ ترسیم شجره نامه برای افراد دارای

سابقه خانوادگی

■ ویزیت متخصص

■ انجام سونوگرافی و بی



## چه افرادی ارجاع می شوند

■ افرادی که شرح حال غیر طبیعی (سابقه

فردی و یا خانوادگی، سابقه بیوپسی

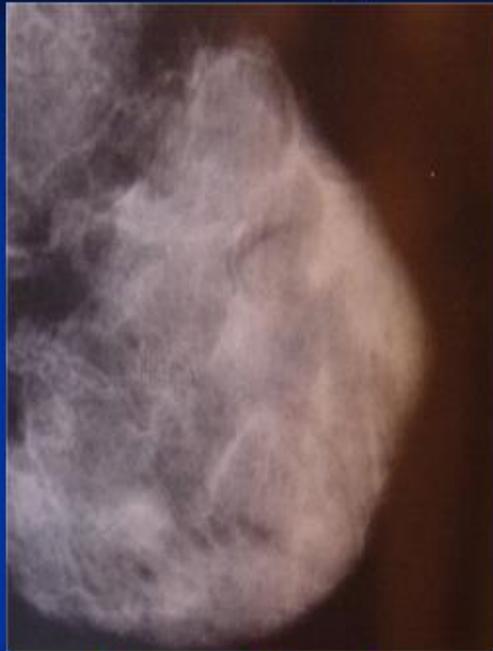
پستان و یا رادیوتراپی قفسه سینه)

دارند.

■ افرادی که معاینه غیر طبیعی دارند.

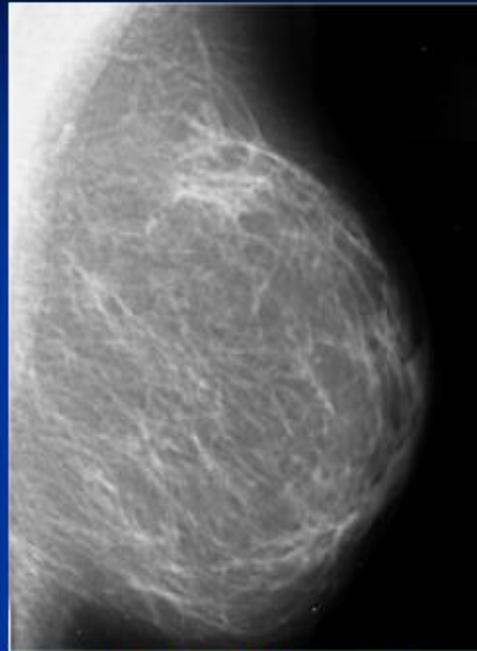
# نمونه کلیشه ماموگرافی

## Mammograms of Dense Breasts



**Dense Breast**

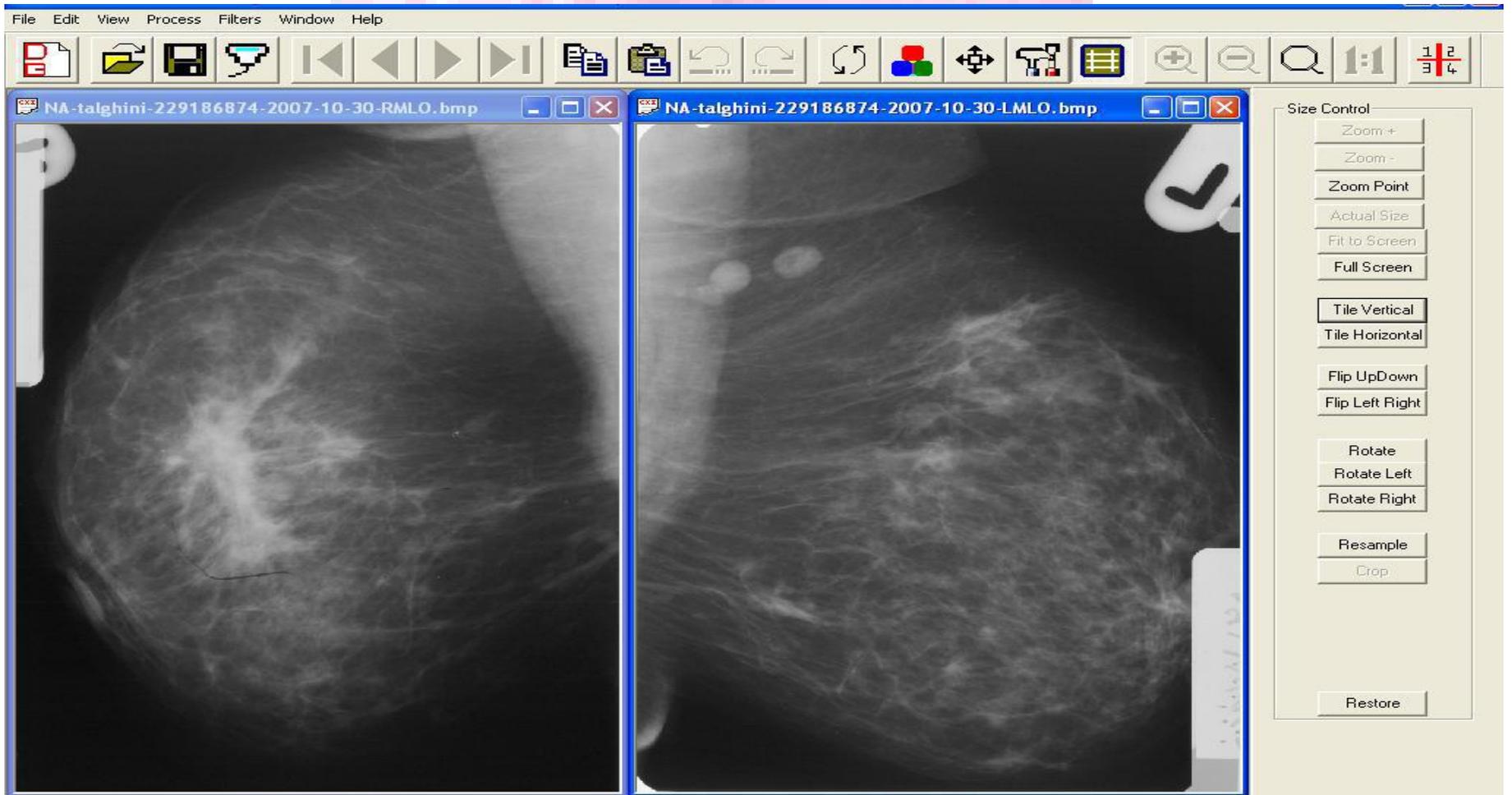
(Common in younger, pre-menopausal women, or women taking estrogen)



**Fatty Breast**

(Common in older, post-menopausal women)

***Masses, even cancers, can be missed in a dense breast.  
If a lump is felt, Always request an Ultrasound!!!***





# Birads

Category	Definition	Likelihood of cancer
BI-RADS 0	Incomplete	N/A
BI-RADS 1	Negative	Essentially 0%
BI-RADS 2	Benign	Essentially 0%
BI-RADS 3	Probably benign	>0%, but $\leq$ 2%
BI-RADS 4	Suspicious	>2%, but <95%
BI-RADS 5	Highly suggestive of malignancy	$\geq$ 95%
BI-RADS 6	Known biopsy-proven malignancy	N/A

Adopted from ACR BI-RADS Atlas, Breast Imaging Reporting and Data System.

**به کجا مراجعه کنیم؟**

**معاینه پستان در کلیه مراکز جامع خدمات سلامت و**

**پایگاه های سلامت به صورت رایگان انجام می شود.**

- بهترین راه کاهش خطر سرطان پستان ضمن رعایت شیوه زندگی سالم، انجام مراقبت‌های معمول نظیر معاینات دوره‌ای و انجام ماموگرافی در صورت نیاز به ویژه در افراد پرخطر است.

