Overview of Breast Cancer Screening

National Health Mission
Deptt. of Health & Family Welfare
Govt. of Odisha.
What is Cancer?

- Uncontrolled growth of cells
- Purposeless
- Undisciplined like terrorist
- Robs all the food that you eat and continues to grow till host dies.
Breast cancer

Stage IA Breast Cancer
- Tumor is 2 cm or smaller
- 2 cm

Stage IB Breast Cancer
- Lymph nodes
- Clusters of cancer cells in lymph nodes

OR
- Clusters of cancer cells in lymph nodes
- Tumor is 2 cm or smaller
- 2 cm
4 Stages of Breast Cancer:

0. Abnormal cells in lining of the ducts or sections of the breast. Results in increased risk of developing cancer in both breasts. 100% Survival Rate.

1. Cancer in the breast tissue tumor less than 1 inch across. 98% Survival Rate.

2. Cancer in the breast tissue tumor less than 2 inches across. Cancer may also spread to auxiliary lymph nodes. 88% Survival Rate.

3. Tumor is larger than 2 inches across with extensive spread to auxiliary or nearby lymph nodes. Possible dimpling, inflammation or change of skin color. 52% Survival Rate.

4. Spread of cancer beyond the immediate region of the breast. 16% Survival Rate.
Risk Factors

• Reproductive & Hormonal factors
  ✓ The older a woman is when she has her first child, the greater her chance of having breast cancer.
  ✓ Early menarche (before age 12), late menopause (after age 55) or never had children
  ✓ Women who take menopausal hormone therapy (oestrogen and progesterone) for five years or more after menopause

• Family History: Risk of Breast cancer increases in women with a first-degree relative with breast cancer

• Being obese after menopause

• Physical inactivity.

• Alcohol intake
High Risk Groups

• Personal history of Breast Cancer
• Family History of Breast/ Ovarian/Colon Cancer
• Chronic Benign Breast Diseases
Breast Awareness

The first person to detect any lump in the breast is the woman herself which is by teaching the woman to be aware of

- A change in size
- A nipple that is pulled in or changed in position or shape
- A rash on or around the nipple
- Discharge from one or both nipples
- Puckering or dimpling of skin
- Lump or thickening in the breast
- Constant pain in the breast or armpit

In case a woman notices any such change, she should promptly visit the health center or health professional.
Factors Increasing the risk

**Hormones:** Hormone replacement therapy (HRT) - Magnitude of Effect for Combination Therapy: Approximately a 24% increase in incidence of invasive breast cancer if a lady takes HRT for 10 years continuously.

**Ionizing radiation:** Exposure of breast to ionizing radiation increases risk of developing breast cancer, starting 10 years after exposure and persisting lifelong. Risk about 6 times, depends on dose and age at exposure, with the highest risk occurring during puberty.

**Obesity:** Obesity increases breast risk in postmenopausal women Comparing women weighing more than 82.2 kg with those weighing less than 58.7 kg, the relative risk (RR) is 2.85.
Protective Factors - Breast Cancer

Exercise:
- Exercising strenuously for more than 4 hours per week reduces risk
- RR reduction is 30% to 40%
- The effect may be greatest for premenopausal women of normal or low body weight

Early pregnancy:
- Women having full-term pregnancy before age 20 years have decreased risk.
- 50% decrease in breast cancer compared to nulliparous women or those who give birth after age 35 years.

Preventive Mastectomy:
- Bilateral mastectomy reduces the risk in women with a strong family history.
- Risk is reduced as much as 90%

Preventive Oophorectomy:
- Oophorectomy in women with BRCA gene mutations lowers risk.
- Breast cancer incidence is decreased by 50%. (same as Tamoxifen)
Primary Prevention

• Reduce weight
• Eat less animal fat and red meat
• Increase physical exercise 4 hrs/week
• First child below 20-25 yrs breast feed
• Chemoprevention- Tamoxifen 20 mg for 5 years
• Risk Reduction Mastectomy or Oophorectomy
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Breast Cancer early detection

- Mammography
- Clinical Breast Examination- CBE
- Breast self examination- BSE
Screening for Breast Cancer

Screening by Mammography
Mammography in women aged 40 to 70 years decreases breast cancer mortality. The benefit is higher for older women, because their breast cancer risk is higher.
Screening by Clinical Breast Examination- CBE

• Screening by clinical breast examination reduces breast cancer mortality.
• Breast cancer mortality same (for women aged 50 to 59 years) CBE alone vs CBE + mammogram (Canadian study)
Clinical Breast Examination

• All women > 30 years visiting screening centre, will be provided a pre-procedure counselling, and then screened using Clinical Breast Examination (CBE).
• Clinical Breast Examination is to be performed by a trained physician or a nurse or a health worker.
Thank you