

**BEAUTY IS IN THE
EYE OF THE
BEHOLDER**

**Breast Cancer Surgery:
Can I still keep my breast?**

Dr shiryazdi

Statistics

1 in 9 women ●

Rising incidence ●

2010 > 2,500 cancers diagnosed in Ireland ●

Outcome from breast cancer has improved ●

History of breast surgery

- 1894 – Radical mastectomy by William Halsted
- 1967 – Modified Radical Mastectomy
- 1981 – Breast conservation surgery (lumpectomy and removal of axillary lymph nodes)
- *Studies have shown that there is no difference in the outcome in all these three types of surgery*

HISTORICAL PERSPECTIVE

Ancient Egyptians 3,500 ●

Hippocrates 460 BC- humoral disease ●

Breast Cancer considered systemic- ●
surgery did not cure because this was a
disease involving the en
(Humora

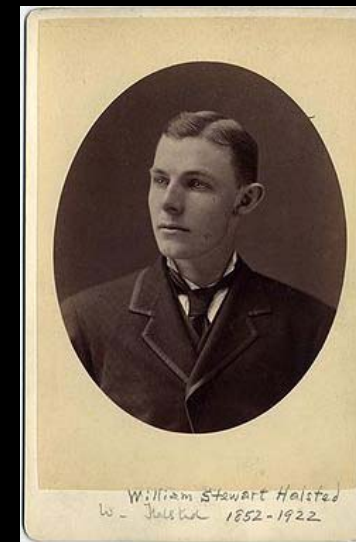


Move to Localised Theory

17th Century- ●
Localised disease
potentially curable
with surgery



19th Century- ●
Halstead-Era of
Radical Mastectomy

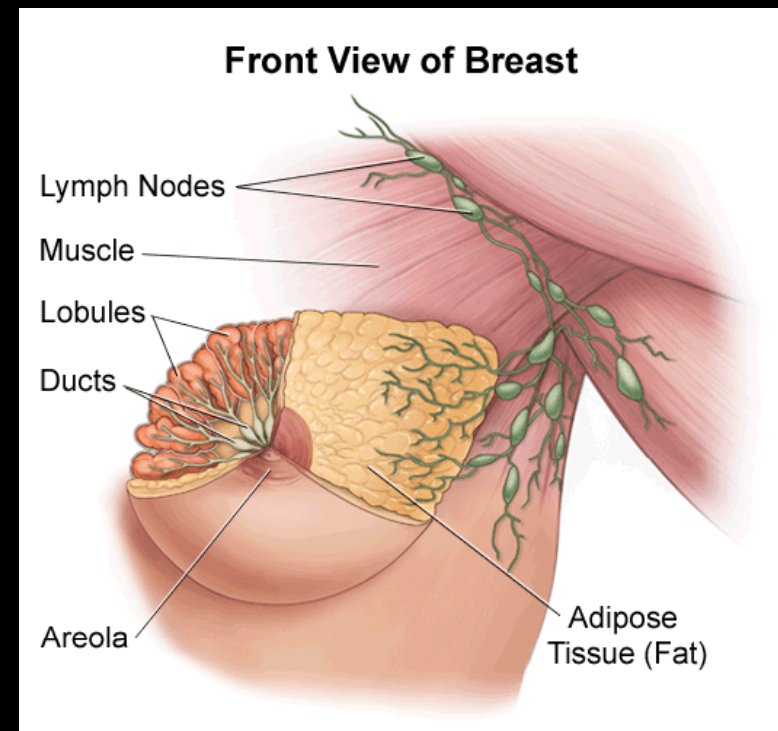


Anatomy

Halstedian theory ●

Cancer spread
anatomically ●

Breast- Lymphatics/ ●
direct invasion of
surrounding tissues



Oncology Development

1895 Beatson-
oophorectomy ●

1896 Emile Grubb-
radiotherapy ●

Chemotherapy- 20th
century ●



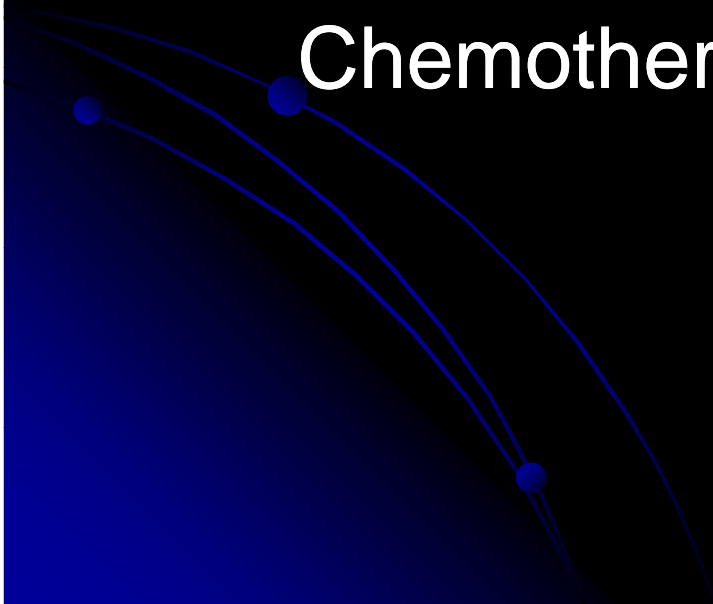
Influential Clinical Trials

NSABP ●

Milan ●

Breast Conservation and radiotherapy ●

Chemotherapy development and trials ●

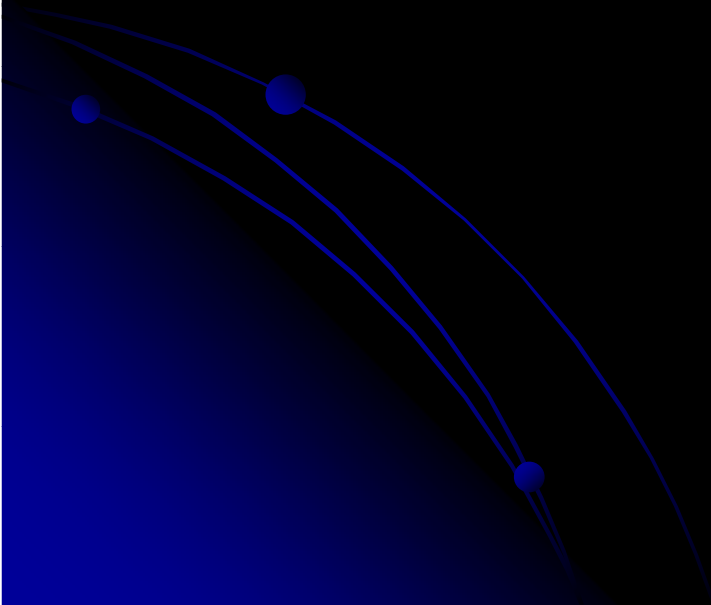


Modern Surgical Practice

Less invasive surgery ●

More attention to cosmetic outcomes ●

Improved prognosis ●

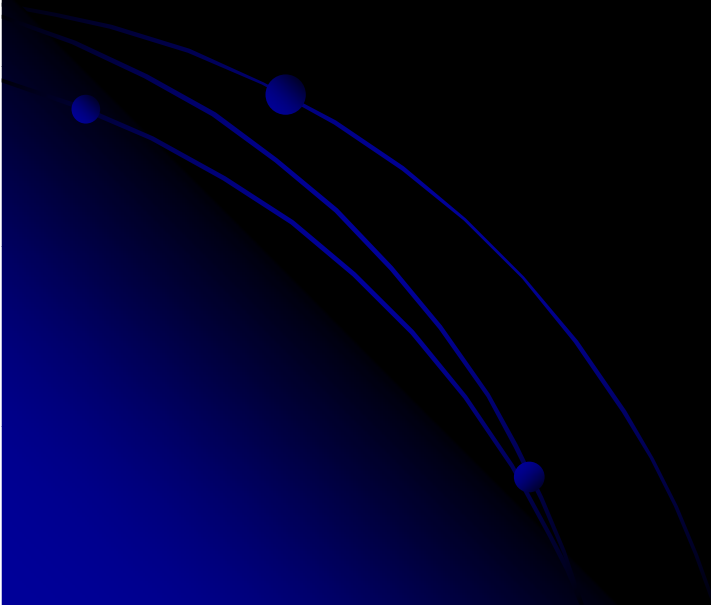


Oncological Approach

Combining treatments: ●
Surgery/Chemotherapy/Radiotherapy/Biol ●
ogical treatments

Multidisciplinary ●

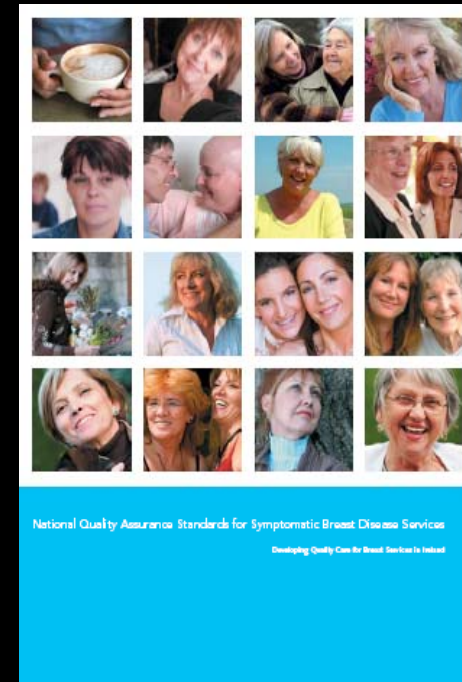
“Tailored” approach ●



Breast Cancer Services in Ireland

Specialist Cancer Centres

- Population of 250,000-300,000 per centre
- 100 -150 new cancers p.a. per centre
- High volume of cancer cases leads to experienced personnel



National Quality Assurance Standards for
Symptomatic Breast Disease Services
(Ireland 2000)

National Cancer Control Programme

Established 2006 ●

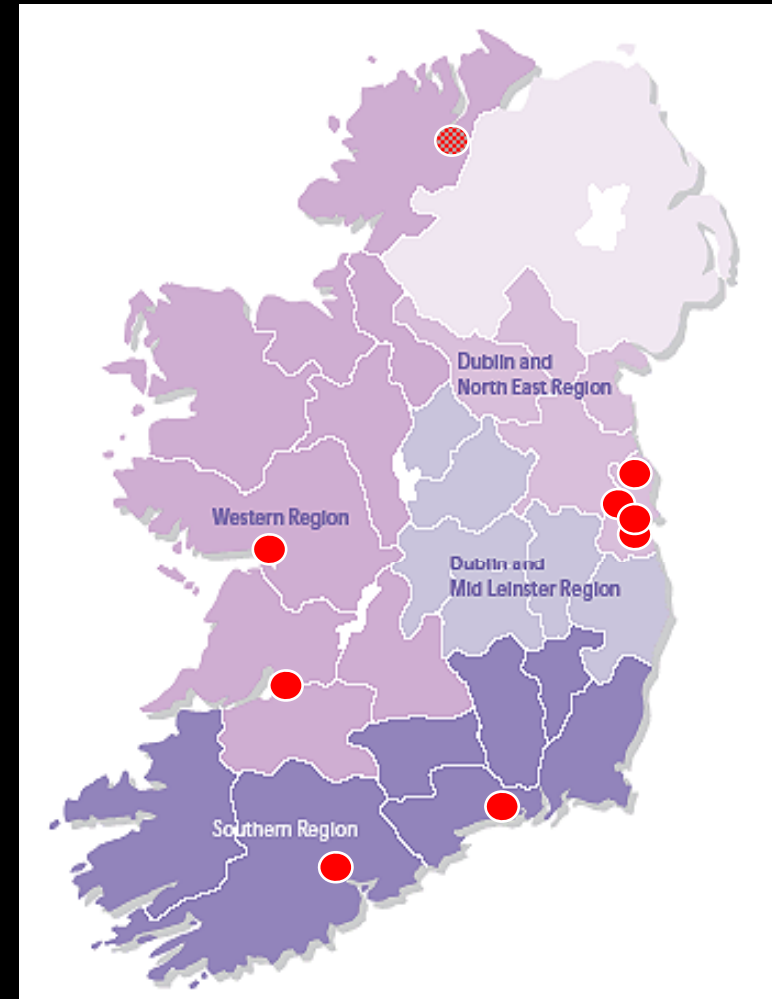
Cancer Strategy ●

8 Cancer Centres ●

West: GUH and Limerick

South: CUH and Waterford

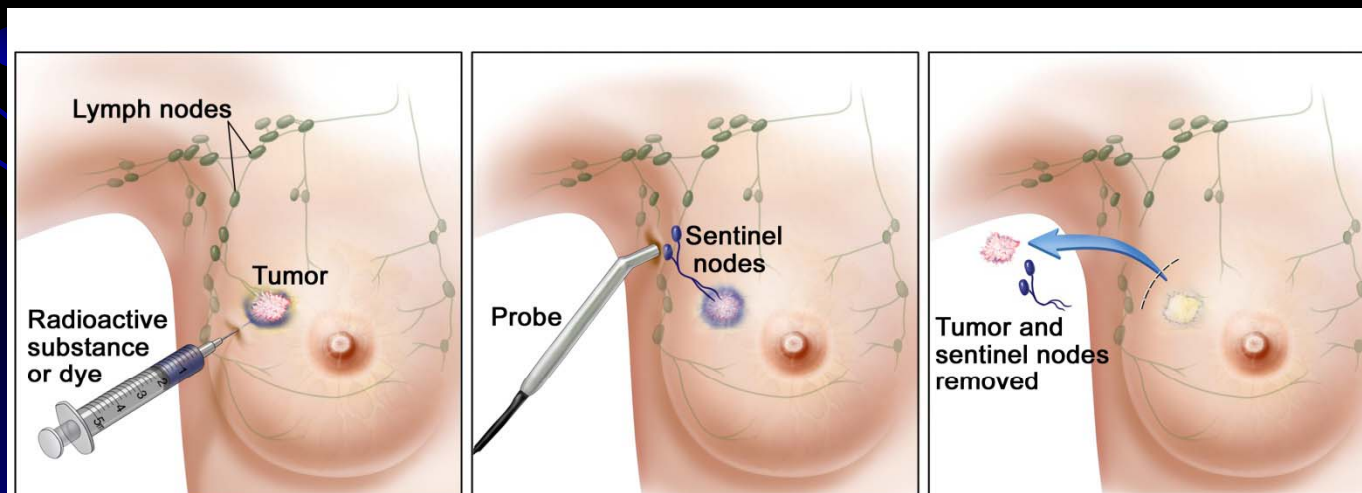
East: Mater/Vincent's,
Beaumont and James'



Minimally invasive surgery

1970 Breast ●
conservation

1990's Sentinel node ●
biopsy



Why is there no difference whatever type of surgery is done?

- Even when a breast cancer is 1 cm, cancer cells can go into the blood and lymphatic vessels and be carried to any part of the body
- Hence surgery alone usually cannot cure the patient
- Systemic therapy such as chemotherapy or hormone therapy will also be required
- ***However surgery is important to get rid of all obvious gross cancer***

Survival after BCS and Mastectomy

Trial	Endpoint	Overall Survival		Disease-free Survival	
		CS&RT	Mastect	CS&RT	Mastect
NCI Milan	18 yrs	65%	65%	N/A	
Institut Gustav Roussy	15 yrs	73%	65%	N/A	
NSABP B-06	12 yrs	63%	59%	50%	49%
NCI USA	10 yrs	77%	75%	72%	69%
EORTC	8 yrs	54%	61%	N/A	
Danish Breast Cancer Group	6 yrs	79%	82%	70%	66%

Local recurrence rates after lumpectomy +RT, lumpectomy alone and mastectomy

Trial	Follow-up	Lumpectomy And RT	Lumpectomy alone	Mastectomy
NSABP-B06	8 yrs	10%	39%	8%
EORTC	8 yrs	15%	NA	9%
Jacobsen etal	10yrs	17%	NA	9%
European EORTC/DBCG	10 yrs	10%	NA	9%

Radiotherapy

- After lumpectomy, **radiotherapy** is essential, otherwise the local recurrence rate is unacceptably high
- ***Without radiotherapy, the local recurrence can be as high as 40%***

When can we try to save your breast?

- **Size is the most important criteria.** The lump must be small enough to be excised with a good margin of normal breast tissue
- The tumour must be a single lump with no disease elsewhere in the breast – **mammogram before surgery is essential to rule out multifocal disease**
- The patient **must agree to radiotherapy** and have no other diseases which make radiotherapy impossible

When can we try to save your breast?

- **Counseling is very important**
- **Decision-making should be a shared decision ie the patient and the doctor together will decide what is best for the patient**

Mastectomy



- No physical handicap
- The degree of emotional handicap depends on the patient

Breast conservation surgery



- Breast contour is preserved
- Requires radiotherapy
- Generally less depression and better body image

Breast conservation surgery



- Occasionally may cause a lot of distortion if the lump is large or too close to the nipple
- In such cases, may require plastic surgery or a mastectomy is necessary

What if I cannot save my breast?

- **If the lump is too big to be safely removed with a margin of normal tissue, or there are multiple cancers in the breast, and mastectomy is required, immediate breast reconstruction is possible and has been shown to be safe**

Immediate breast reconstruction



- Takes longer operating time
- Own body tissues can be used eg abdomen
- Psychologically less depression

Is there a way of saving my breast even if I have a big tumour?

- **Primary chemotherapy may be able to shrink the tumour so that BCS can be done**
- **Not standard practice, but can be safely done if the patient wants BCS and is not willing to have a mastectomy**
- **Not advisable in Stage 3 locally advanced breast cancer**

What is Stage 3 locally advanced breast cancer?



- Cancer involving the skin or the whole breast
- Chemotherapy can be given first to shrink it
- Mastectomy after chemotherapy

Is breast conservation surgery commonly carried out?

- **In UMMC, 30% of breast surgery is breast conservation surgery while the rest are mastectomy**
- **In USA, figures of BCS are more than 70%**
- **Early detection is the most important factor in determining whether your breast can be saved**

Follow-up after breast conservation surgery

- Mammogram at 6 months after radiotherapy
- Mammogram yearly afterwards
- *If local recurrence detected, mastectomy must be carried out*

Conclusion

- Breast conservation surgery gives the same outcome as mastectomy
- **Selection of patients important**
- Education and counseling of patients is important
- Awareness programmes should emphasize that with early detection, **YOU CAN STILL KEEP YOUR BREAST**