

#### **Trends in risk reducing surgery**



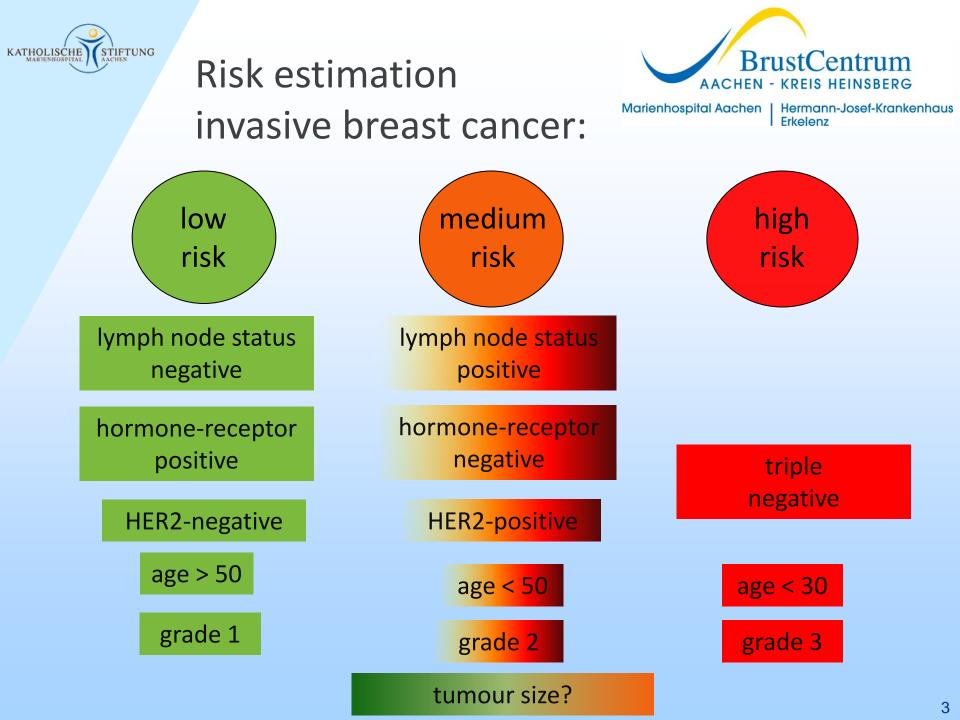
Dr. M. Danaei Head of Breast Unit Marienhospital Aachen Germany





#### Risk factors for breast cancer:

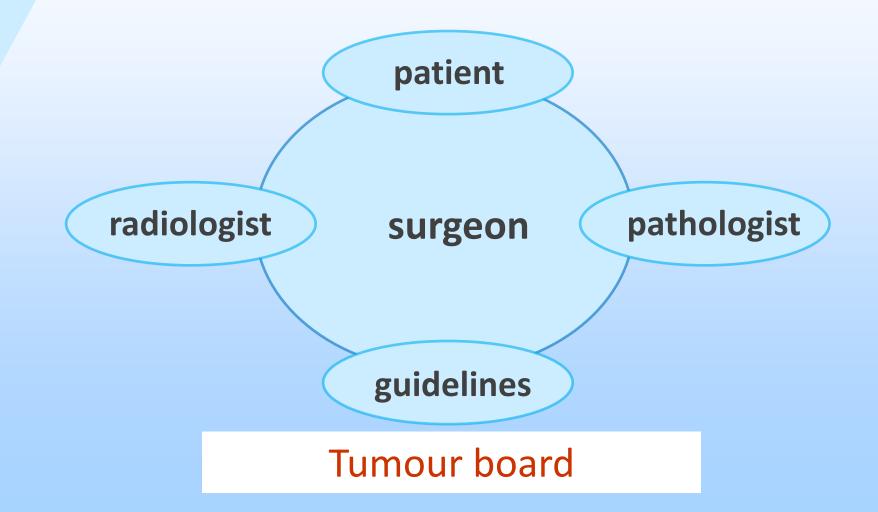
- personal history
- family history / genetic predisposition
- lifestyle factors
- oestrogen and progesterone exposure
- hormone replacement therapy after menopause?
- radiation to the chest given at a young age
- detection of lesions of borderline malignancy
- 1% to 2% chance per year of developing a second breast cancer in opposite breast







#### **Risk reducing:** surgical planning process







# Risk reducing: Preventive





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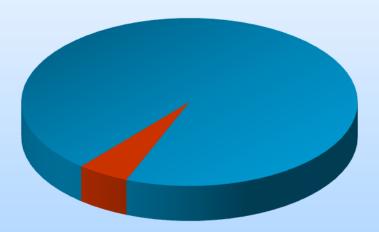
#### Prevent breast cancer







#### BRCA2/-1 mutation: preventive mastectomy



# reduction of breast cancer risk by 95 %





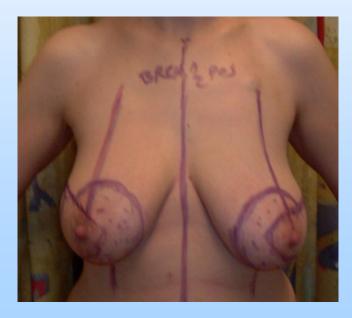
#### **Remove nipple-areola complex?**





Patient with BRCA mutation

Bilateral prophylactic skin sparing mastectomy, including plastic surgery breast reduction







three weeks postoperative





# Bilateral prophylactic skin sparing mastectomy & reconstruction nipple-areola complex





two weeks postoperative





# Patient diagnosed with breast cancer of the left breast, detected BRCA mutation



After breast conserving therapy, CHT and radiation left breast SSM on both sides one year postoperative because of BRCA mutation





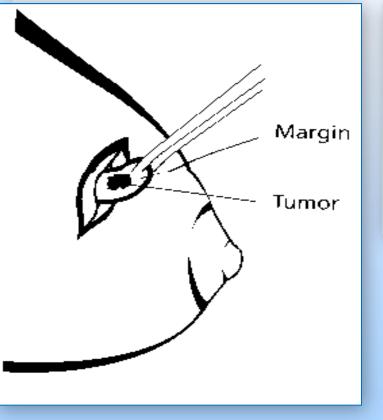
# **Risk reducing: Avoid R1 in the first step**

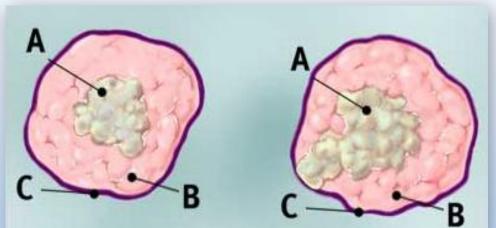




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Avoid R1 in the first step





Pathologic margin status

Higher incidence of positive margins on lumpectomy in patients with extensive DCIS





#### Avoid R1 in the first step

#### Modern imaging diagnostics





Negative margins, detection of multicentric/multifocal diseases and no "size-surprise"





#### Avoid R1 in the first step

#### Magnetic resonance tomography?



- different experiences and opinions
- depending on expert knowledge of finding doctor

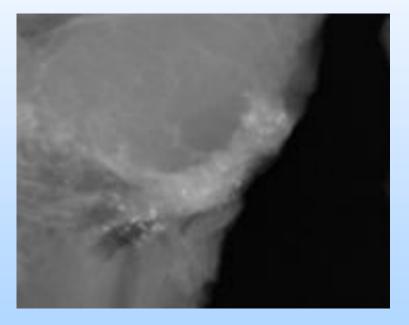






#### Avoid R1 in the first step

- wire marking
- specimen radiography
- specimen sonography







## Cosmetic result and oncological safety quality of living

- satisfying cosmetic result
- reduce disease-induced suffering & avoid complications

oncological safety

- prevent relapses
- increase survival rate







# **Risk reducing:** Avoid lymph oedema



# conventional axilla dissection



sentinel node biopsy





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# **DCIS - Risk reducing:** Avoid side effects of radiotherapy



**DCIS:** skin sparing mastectomy & reconstruction nipple-areola complex





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# **DCIS - Risk reducing:** Avoid side effects of radiotherapy





DCIS: skin sparing mastectomy right breast, reductive surgery left breast DCIS: skin sparing mastectomy left breast





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# **Breast Cancer - Risk reducing:** Avoid side effects of radiotherapy



Breast cancer: planning breast conserving therapy

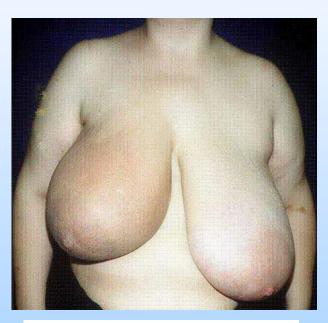
status after radiotherapy





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# **Breast Cancer - Risk reducing:** Avoid side effects of radiotherapy



voluminous breast after radiation





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# **Breast Cancer - Risk reducing:** Avoid side effects of radiotherapy



breast conserving therapy including reduction plastic left side before radiation good operation technique leads to good medical and cosmetic results after radiation





# breast conserving therapy: avoid relapse / satisfying cosmetic result







#### breast conserving therapy











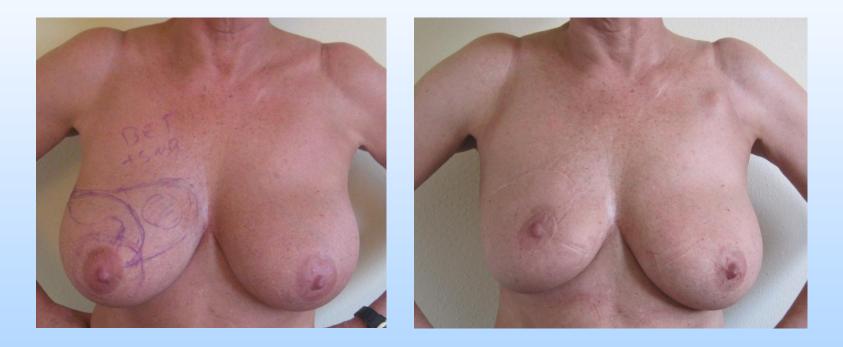
breast conserving therapy: location in no-men's land



10 days post operative



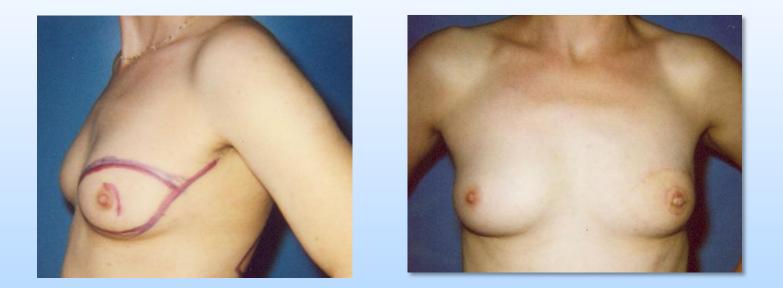




#### breast conserving therapy: location in no-men's land



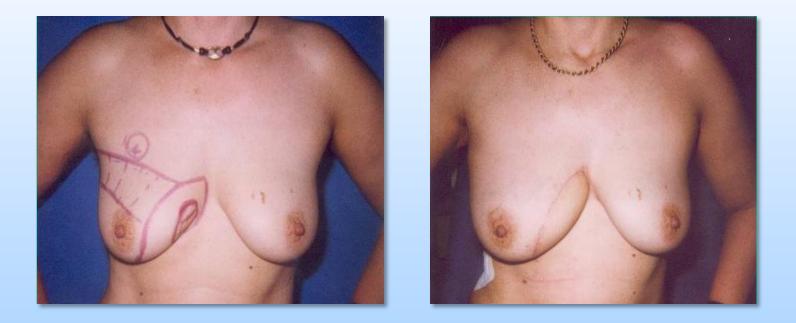




#### Volume alignment with own tissue (Latissimus) and prosthesis







#### Volume alignment with own tissue (Latissimus)



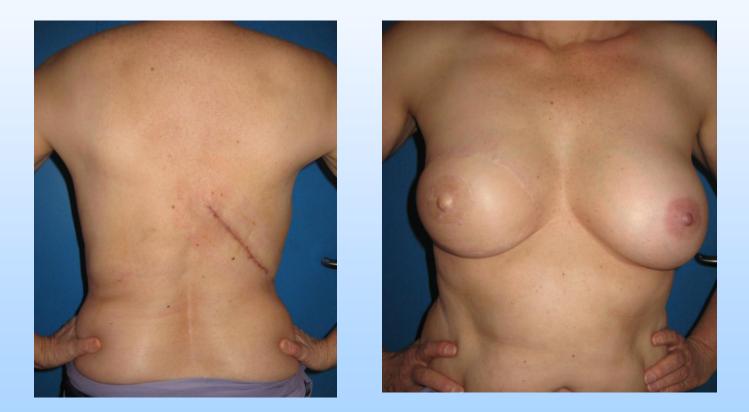




#### Volume alignment with own tissue (Latissimus)







#### Volume alignment with own tissue (Latissimus)









**Mastectomy** 







# Breast reconstruction with expander, prosthesis and nipple-areola-complex







Breast reconstruction with expander, prosthesis and nipple-areola-complex





## **Risk reducing:**























#### **Thank You for Your Attention**