Quale Prevenzione Senologica Oggi?

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Quale Prevenzione oggi in Senologia?

- Breast cancer is the most common tumor among women accounting for nearly 1 in 3 cancers diagnosed among women

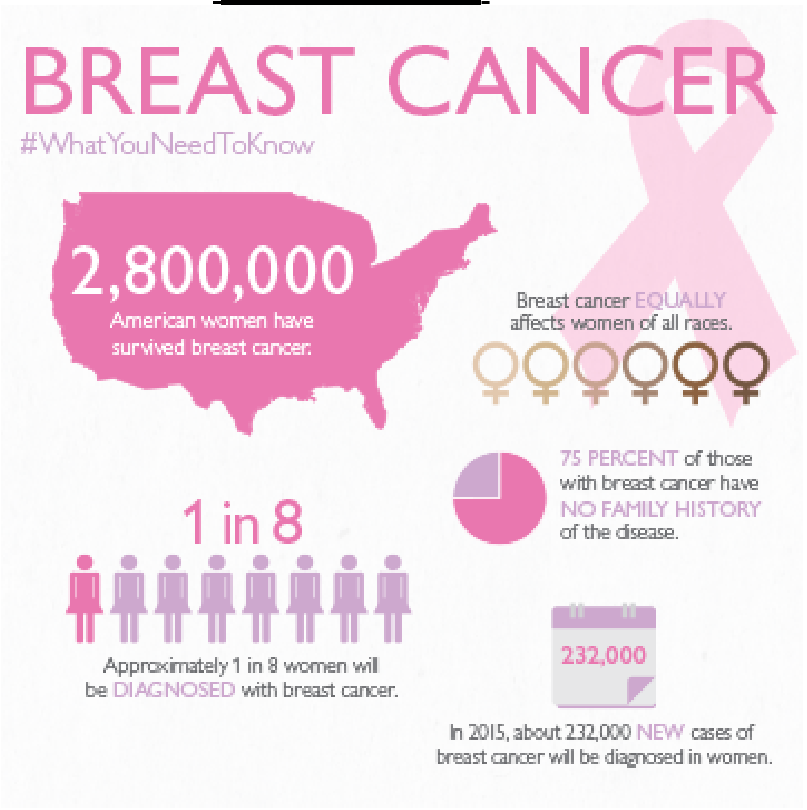
Breast Cancer Facts and Figures 2011-2012 ACS

- The incidence of BC is increasing around the world

Breast Cancer Facts and Figures 2011-2012 ACS

- Worldwide, nearly 1.8 million of women will develop breast cancer in 2017

Breast Cancer Facts and Figures 2011-2012 ACS



Quale Prevenzione oggi in Senologia?

- Breast cancer is the most common tumor in women aged 30 to 39 and accounts for nearly 24% of all cancer in that age group.

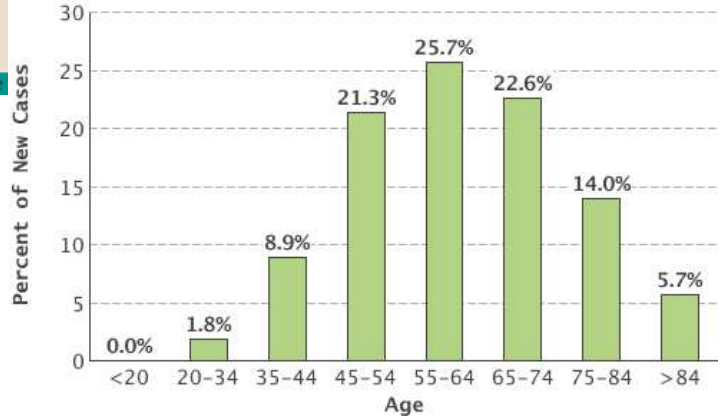
JAMA. 2013 Feb 27;309(8):800-5. doi: 10.1001/jama.2013.776.

- The risk of a woman developing BC in USA before the age of 40y is nearly 1 in 173

J Natl Cancer Inst. 2008 Nov 19;100(22)

- In 5.5% of BCs occur in women younger than the age of 40 years and the incidence is dramatically increasing

European Journal of Cancer (2012) 48, 3355– 3377



Quale Prevenzione oggi in Senologia?

- It is estimated that 13.110 cases of BC will be in women under age 40 and 26,275 women will be under 45 years old.

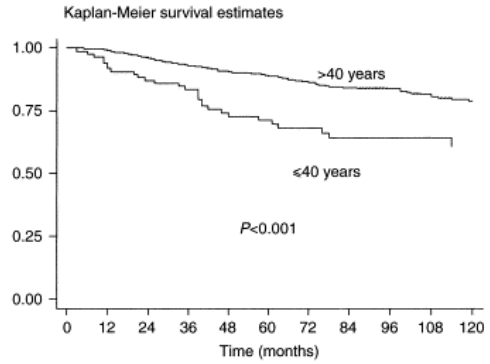
National Cancer Institute. SEER Stat Fact Sheets 2013

- Every year, nearly 1,200 women under age 40 die from breast cancer

ACS. Breast Cancer Facts & Figures 2011- 2012

- Young women, between 20 to 40 years of age who develop breast cancer, have the lowest 5-year survival

European Journal of Cancer (2012) 48, 3355– 3377



Quale Prevenzione oggi in Senologia?

PREVALENZA

Table 4: Age standardized ~~incidence~~ of breast cancer per 100.000 women (Italy 2000–2005)

Age group	2000	2001	2002	2003	2004	2005	2005 vs. 2000 increase
25–44 years old	59.58	64.12	65.92	68.28	75.16	76.67	+28.68%
45–64 years old	256.91	269.47	280.97	273.56	278.75	280.81	+9.30%
65–74 years old	289.97	298.81	310.51	304.18	336.08	324.06	+11.75%
≥ 75 years old	208.45	213.81	208.16	235.95	234.62	241.20	15.71%
Overall incidence 0–84 years old	141.80	148.05	151.61	153.58	160.46	160.86	13.44%

Journal of Experimental & Clinical Cancer Research

Research

Open Access

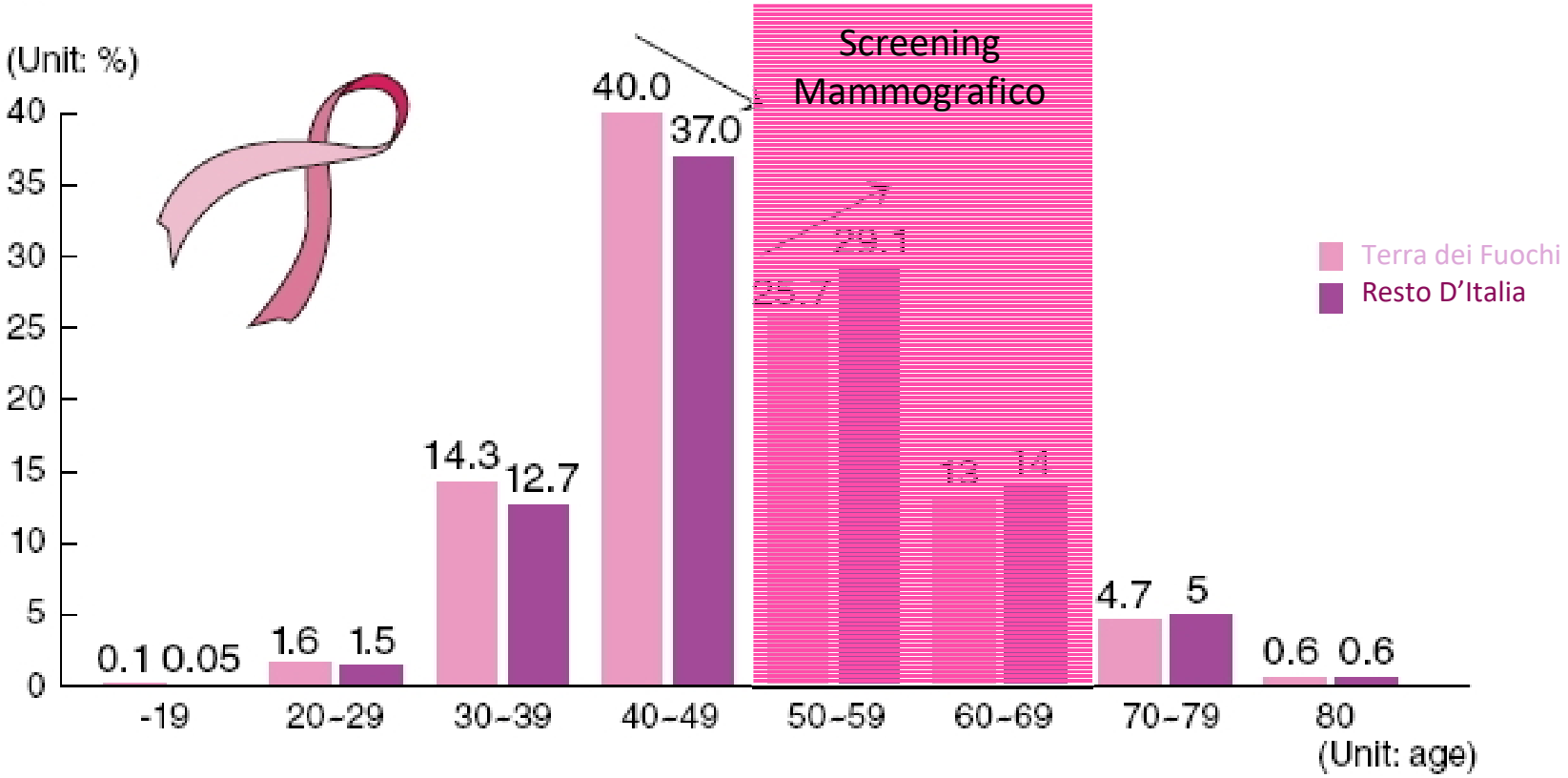
Incidence of breast cancer in Italy: mastectomies and quadrantectomies performed between 2000 and 2005

Prisco Piscitelli[1,2], Antonio Santoriello[3], Franco M Buonaguro[4], Massimo Di Maio[5], Giovanni Iolascon[3], Francesca Gimigliano[3], Alessandra Marinelli[3], Alessandro Distante[6], Giuseppe Serravezza[7], Emiliano Sordi[8], Katia Cagossi[8], Fabrizio Artioli[8], Michele Santangelo[3], Alfredo Fucito[3,9], Raffaele Gimigliano[3], Maria Luisa Brandi[2], Massimo Crespi[10], Antonio Giordano*[1,9,11] for the CROM and the Human Health Foundation study group

Nella fascia di età compresa fra i 24 ed i 44 anni l'incremento percentuale di tumori al seno trattati dal 2001 al 2006 è stato quasi il doppio rispetto a quanto osservato nelle restanti fasce d'età

Quale Prevenzione in Terra dei Fuochi

Casi (%) di tumore al seno differenziati per gruppi d'età alla diagnosi nell'area di Terra dei Fuochi e Resto d'Italia



Source: National Cancer Information Center

underforty
WOMENBREASTCARE

It is not only a question of numbers…

Etiology

- Breast Cancer in young women arise from multiple factors, many of them environmentally based

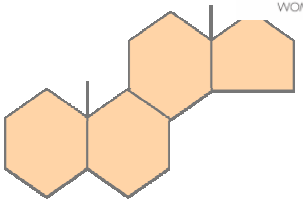
  Lancet 1985;1(8433):829–32.

- In 2002 one of the largest studies of hormone replacement therapy was halted because women taking the hormones presented higher risk of developing breast cancer.

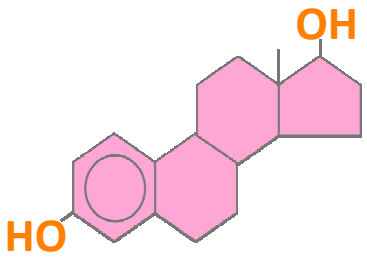
  Breast Screening Programme. England 2007–2008

- Birth control pills contain the same type of synthetic hormones used for replacement therapy and several studies have confirmed that using oral contraceptives increases risk of developing breast cancer

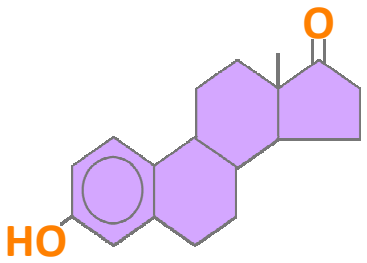
  Lancet 1996; 347:1713-27



Steroid ring system



Estradiol



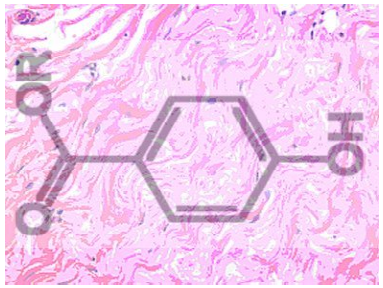
Estrone

Etiology

Parabens are chemicals with estrogen-like properties widely used in personal care products like shampoo, lotion, deodorant, shaving gel and cosmetics

Pharmacol Rep. 2013;65(2):484-93.

These chemicals have been detected in breast cancer tissues at concentrations up to 1 million times higher than the estrogen levels naturally found in human breast tissue.



Breast Cancer Res. 2013 May 27;15(3)

Parabens are accumulating at alarmingly high concentrations because of their widespread and daily use. Exposure often begins as early as in the womb

Reprod Toxicol. 2009 Jul;28(1):26-31

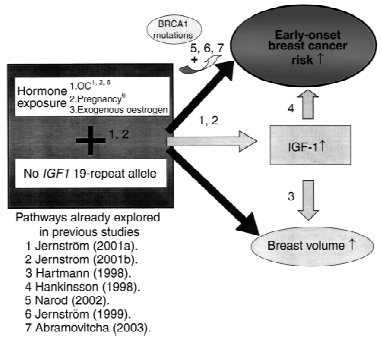
Etiology

- RBGH (recombinant bovine growth hormone) is the largest selling dairy animal drug in the US to boost cows milk production

Int J Health Serv. 1996;26(1):173-85

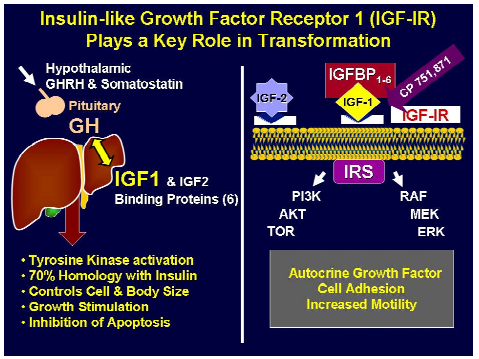
- RBGH milk contains increased levels of insulin growth factor-1 (IGF-1) that regulates cell growth, cell division, and the ability of cancer cells to metastasize.

Ann Oncol. 2013 Jun 6



- Premenopausal women with elevated IGF-1 levels present a seven-fold increase in breast cancer rate, and women younger than age 35 with elevated IGF-1 levels have more aggressive disease.

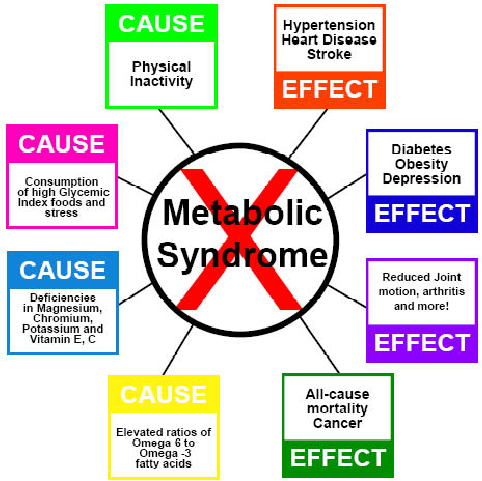
Cancer Prev Res (Phila). 2013 Jun;6(6):577-84



Etiology

Metabolic syndrome, is defined as central obesity in addition to two of the following risk factors: elevated glucose, insulin resistance, elevated triglycerides, reduced high-density lipoproteins (HDLs), and hypertension

The Lancet, vol. 365, no. 9468, pp. 1415–1428, 2005



Several evidences suggest that hyperinsulinemia can increase the risk of breast cancer and the mechanism is likely related to increased bioactivity of insulin-like growth factor 1 (IGF-1)

Eur J Clin Nutr 1999; 53: 83-87

Breast cancer patients with metabolic syndrome were found to have an overall poor response to treatment and increased rates of disease progression

Annals of Oncology, vol. 23, no. 4, pp. 860–866, 2012


RISK
RISK

Quale Prevenzione oggi in Senologia?

Risk Factors

Several risk factors for breast cancer have been well documented

ACS, Breast Cancer Facts & Figures 2011-2012

the main risk factors for developing breast cancer at a young age are:

- A family history of breast cancer, particularly in a mother, daughter, or sister;
- History of radiation therapy to the chest before age 40;
- Evidence of a specific genetic defect (BRCA1/BRCA2 mutation);
- Heavy alcohol use, high intake of red meat, dense breasts, obesity, race, oral contraceptives and immunosuppressive therapy

Table 4. Factors That Increase the Risk for Breast Cancer in Women

Relative Risk	Factor
>4.0	• Age (65+ vs. <65 years, although risk increases across all ages until age 80) • Biopsy-confirmed atypical hyperplasia • Certain inherited genetic mutations for breast cancer (BRCA1 and/or BRCA2) • Mammographically dense breasts • Personal history of breast cancer
2.1-4.0	• High endogenous estrogen or testosterone levels • High bone density (postmenopausal) • High-dose radiation to chest • Two first-degree relatives with breast cancer
1.1-2.0	• Alcohol consumption • Ashkenazi Jewish heritage • Early menarche (<12 years) • Height (tall) • High socioeconomic status • Late age at first full-term pregnancy (>30 years) • Late menopause (>55 years) • Never breastfed a child • No full-term pregnancies • Obesity (postmenopausal)/adult weight gain • Oral contraceptive use • Personal history of endometrium, ovary, or colon cancer • Recent and long-term use of menopausal hormone therapy containing estrogen and progestin • Recent oral contraceptive use

Risk Factors

Several multivariate risk assessment models have been introduced to evaluate the relative risk for breast cancer as well as the cumulative lifetime risk

Three models are frequently used in clinical practice providing an individualized breast cancer risk assessment:

- Gail model
- Claus model
- BRCAPro model

Such models provide an individualized breast cancer risk assessment, which lead decisions regarding the implementation of frequent surveillance, chemoprevention and prophylactic surgery

- Low Risk
- Moderate Risk
- High Risk
- Hereditary Risk

Risk Factors

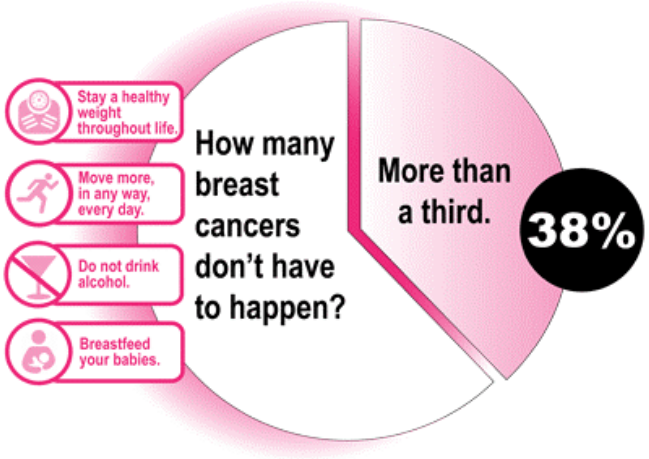
Primary prevention of breast cancer includes:

- health counseling
- Educational programs
- Environmental controls
- Chemoprevention
- Prophylactive Surgery

Secondary prevention, leading to the discover BC and pre-cancerous lesions while localized:

- Screening
- Early detection programs
- Scheduled women surveillance

Quale Prevenzione oggi in Senologia?



Prevention

Primary Prevention (Lifestyle)

Risk Factor	High Risk Category	Referent Group	Relative Risk
Obesity	> 35 BMI	< 25	1.2-1.5
Physical Activity	Inactive	Regular activity	1.25-1.7
Alcohol Use	>2 drinks/day	Non drinkers	1.5

McTiernan, Oncologist 2003; Hamijima, Br J Ca 2002

Prevention

Primary Prevention – Lifestyle - Obesity

- Several studies and metanalyses have examined the associations between anthropometric indices and BC among both pre- and postmenopausal women:
  - Height, weight, body mass index (BMI)
  - Waist circumference (WC)
  - Hip circumference (HC)
  - Waist-to-hip ratio (WHR)

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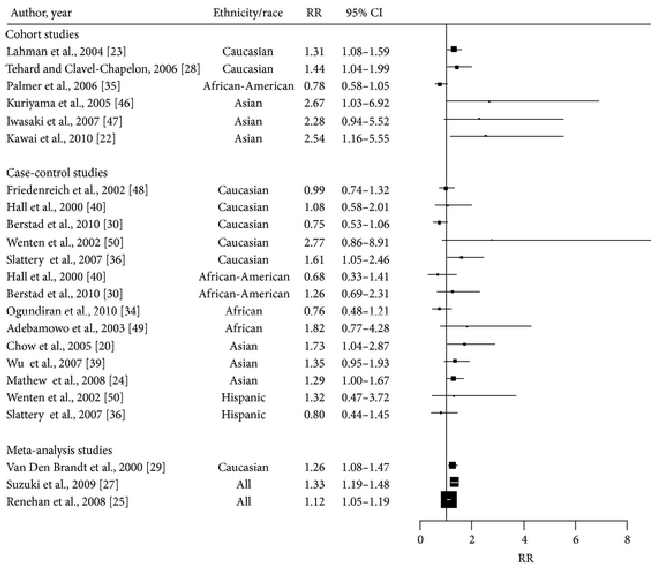
Prevention

Primary Prevention – Lifestyle - Obesity

- Most studies have shown that BMI is associated with a:
  - Increase of the risk of developing

    BC in post-menopause women



Author, year	Ethnicity/race	RR	95% CI
Cohort studies			
Lahman et al., 2004 [23]	Caucasian	1.31	1.08–1.59
Tehard and Clavel-Chapelon, 2006 [28]	Caucasian	1.44	1.04–1.99
Palmer et al., 2006 [35]	African-American	0.78	0.58–1.05
Kuriyama et al., 2005 [46]	Asian	2.67	1.03–6.92
Iwasaki et al., 2007 [47]	Asian	2.28	0.94–5.52
Kawai et al., 2010 [22]	Asian	2.54	1.16–5.55
Case-control studies			
Friedenreich et al., 2002 [48]	Caucasian	0.99	0.74–1.32
Hall et al., 2000 [40]	Caucasian	1.08	0.58–2.01
Berstad et al., 2010 [30]	Caucasian	0.75	0.53–1.06
Wenten et al., 2002 [50]	Caucasian	2.77	0.86–8.91
Slattery et al., 2007 [36]	Caucasian	1.61	1.05–2.46
Hall et al., 2000 [40]	African-American	0.68	0.33–1.41
Berstad et al., 2010 [30]	African-American	1.26	0.69–2.31
Ogunditan et al., 2010 [34]	African	0.76	0.48–1.21
Adebamowo et al., 2003 [49]	African	1.82	0.77–4.28
Chow et al., 2005 [20]	Asian	1.73	1.04–2.87
Wu et al., 2007 [39]	Asian	1.35	0.95–1.93
Mathew et al., 2008 [24]	Asian	1.29	1.00–1.67
Wenten et al., 2002 [50]	Hispanic	1.32	0.47–3.72
Slattery et al., 2007 [36]	Hispanic	0.80	0.44–1.45
Meta-analysis studies			
Van Den Brandt et al., 2000 [29]	Caucasian	1.26	1.08–1.47
Suzuki et al., 2009 [27]	All	1.33	1.19–1.48
Renehan et al., 2008 [25]	All	1.12	1.05–1.19

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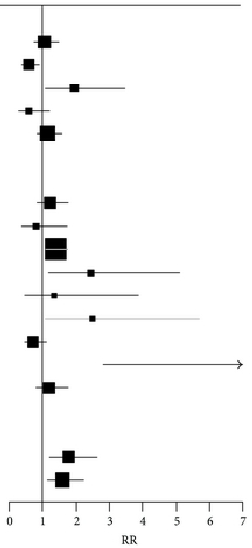
Prevention

Primary Prevention – Lifestyle - Obesity

- Differently WHR, which reflects central obesity is associated with an increased risk of BC in both

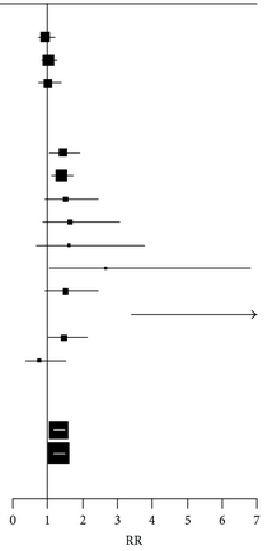
Premenopausal women

Author, year	Ethnicity/race	RR	95% CI
Cohort studies			
Lahman et al., 2004 [23]	Caucasian	1.05	0.74–1.50
Tehard and Clavel-Chapelon, 2006 [28]	Caucasian	0.60	0.39–0.92
Harris et al., 2011 [31]	Caucasian	1.95	1.10–3.46
Wu et al., 2006 [55]	Asian	0.60	0.30–1.20
Kawai et al., 2010 [22]	Asian	1.16	0.85–1.59
Case-control studies			
Friedenreich et al., 2002 [48]	Caucasian	1.22	0.84–1.78
John et al., 2011 [58]	Caucasian	0.82	0.39–1.73
Huang et al., 1999 [38]	Caucasian	1.40	1.13–1.74
Hall et al., 2000 [40]	Caucasian	2.44	1.17–5.09
John et al., 2011 [58]	African-American	1.35	0.47–3.87
Hall et al., 2000 [40]	African-American	2.50	1.10–5.67
John et al., 2011 [58]	Hispanic	0.71	0.46–1.10
Ng et al., 1997 [33]	Asian	7.77	2.81–21.51
Wu et al., 2007 [39]	Asian	1.20	0.82–1.76
Meta-analysis studies			
Connolly et al., 2002 [37]	All	1.79	1.22–2.62
Harvie et al., 2003 [32]	All	1.59	1.14–2.22



Postmenopausal women

Author, year	Ethnicity/race	RR	95% CI
Cohort studies			
Lahman et al., 2004 [23]	Caucasian	0.94	0.73–1.20
Tehard and Clavel-Chapelon, 2006 [28]	Caucasian	1.03	0.83–1.28
Palmer et al., 2006 [35]	African-American	1.01	0.74–1.39
Case-control studies			
Friedenreich et al., 2002 [48]	Caucasian	1.43	1.06–1.93
Huang et al., 1999 [38]	Caucasian	1.40	1.13–1.73
Slattery et al., 2007 [36]	Caucasian	1.51	0.93–2.46
Hall et al., 2000 [40]	Caucasian	1.64	0.88–3.07
Hall et al., 2000 [40]	African-American	1.62	0.70–3.77
Adebamawo et al., 2003 [71]	African-American	2.67	1.05–6.79
Slattery et al., 2007 [36]	Caucasian	1.51	0.93–2.46
Ng EH et al., 1997 [33]	Asian	8.19	3.42–19.64
Wu et al., 2007 [39]	Asian	1.48	1.02–2.15
Slattery et al., 2007 [36]	Hispanic	0.77	0.39–1.51
Meta-analysis studies			
Connolly et al., 2002 [37]	All	1.32	1.17–1.49
Harvie et al., 2003 [32]	All	1.33	1.19–1.48



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Prevention

Primary Prevention – Lifestyle - Obesity

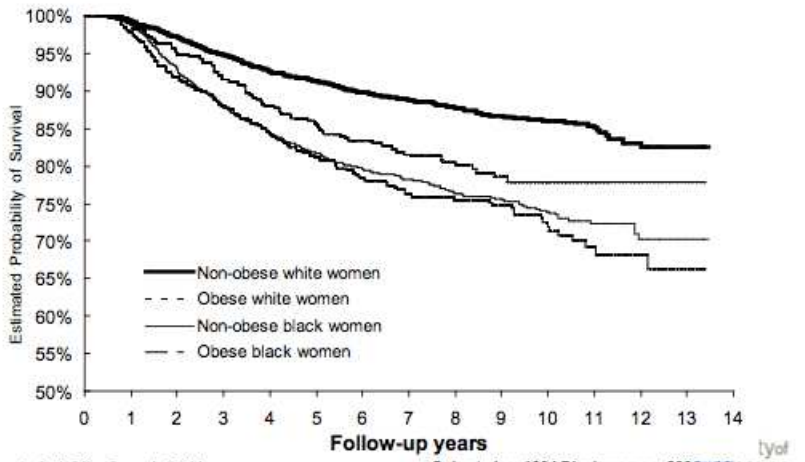
- Moreover, Obesity is an independent prognostic factor for the development of distant metastases and death after the diagnosis of breast cancer.

Change in Body Mass Index Pre-dx to Post-dx: Relative risk of breast cancer death:
5,204 women with breast cancer from the Nurses Health Study

Among Never Smokers		Category of BMI Change			
	Loss	Maintain	Gain 0.5 <2.0 kg/m²	Gain ≥2.0 kg/m²	p
Number of women with breast cancer	514	677	712	272	
Number of breast cancer deaths	38	48	77	46	
Relative risk (95% CI)	1.01 (0.65,1.58)	1.00	1.35 (0.93,1.95)	1.64 (1.07,2.51)	0.0

Kroenke et al, JCO 2005

Breast cancer-specific survival of Black and White women diagnosed with invasive breast cancer stratified by obesity status five years before breast cancer diagnosis



Lu et al, J Clin Oncol, 2011

Cohort size: 1604 Black women; 2934 white women
CARE=Contraceptive and Reproductive Experiences

Obesity, Hormone Therapy Use and Prognosis after Breast Cancer in Swedish population

- In etiologic studies hormone therapy interacts or competes with obesity: hormone therapy increases risk of breast cancer among normal weight and thin women

Body mass index (kg/m²) and number of patients	No hormone therapy Relative risk (95% CI)	Estrogen+ progestin therapy Relative risk (95% CI)
< 25 (n=1267)	1.0	1.0
25-30 (n=997)	0.8 (0.6-1.1)	1.0 (0.5-2.1)
>30 (n=376)	0.9 (0.6-1.3)	2.3 (1.1-5.2)
Adjusted for age at diagnosis, alcohol intake, tumor size and lymph node positivity		

Rosenberg et al, Br J Cancer 2009;100:1486

JCO January 1, 2011 vol. 29 no. 1 4-7

Prevention

Primary Prevention – Lifestyle - Obesity

- There are definitive evidence that weight loss reduce the risk of breast cancer in obese women and it will improve cancer outcomes in obese patients

JCO January 1, 2011 vol. 29 no. 1 4-7

Prevention

Primary Prevention – Lifestyle – Physical Activity

- Based on solid evidence, exercising strenuously for more than 4 hours per week is associated with reduced breast cancer risk.
  - The Average RR reduction is 30% to 40%.
  - The effect may be greatest for premenopausal women of normal or low body weight

N Engl J Med 364 (25): 2381-91, 2011

Prevention

Primary Prevention – Lifestyle – Physical Activity

- The Physical Activity and Breast Cancer Women's Health Initiative (WHI)
  - 74.171 women ages 50-79
  - evaluated incidence of BC correlated to physical activity at age 18, 35, 50

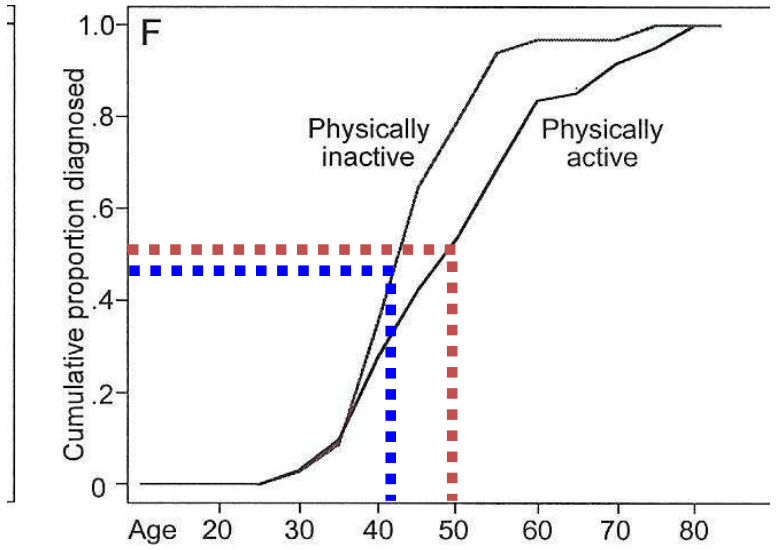
- Results:
  - Regular strenuous physical activity at age 35 had 14% reduction in breast cancer risk
  - 1.25-2.5 hrs/wk walking had 18% decreased risk

McTiernan A et al, JAMA 2003

Prevention

Primary Prevention – Lifestyle – Physical Activity

- New York Breast Cancer Study: Breast and Ovarian Cancer Risks in Jewish Women with BRCA1/2 Mutations



King MC et al, Science 2003

In women with BRCA1/2 mutations who developed breast cancer, regular exercise delayed age of onset by 10 years

Prevention

Primary Prevention – Lifestyle – Physical Activity

- Exercise and Survival After Breast Cancer Diagnosis (Nurses Health Study):
  - 2,987 nurses with early stage breast cancer
  - 3 MET hours/week equal to walking average pace of 2-3 miles per hour for 1 hour

- Compared to women with LOW physical activity, risk of dying of breast cancer was:
  - 20% less for LOW/MED exercise
  - 40-50% less for MED/HIGH exercise (3 hours per week walking)

Holmes MD et al, JAMA 2005

Prevention

Primary Prevention

Investigate

NON-MODIFIABLE RISK FACTORS
Gender
Age
Personal breast cancer history
Family history
Proliferative breast conditions
Breast density
Early menstruation/ Late menopause

Prevention

Primary Prevention – Hereditary Susceptibility

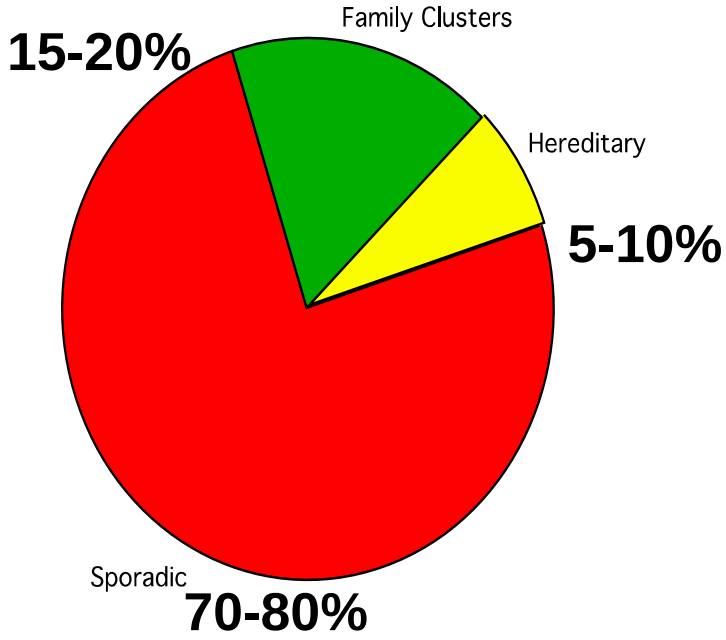
BRCA1 and BRCA2 Mutations

- Breast cancer risk 50 - 85%
- Early onset, 1/2 diagnosed by age 41
- Second primary breast cancer 40 - 60%
- Ovarian cancer risk 10 - 40%

TP53 (Li Fraumeni syndrome)

PTEN (Cowden's syndrome)

CHK2

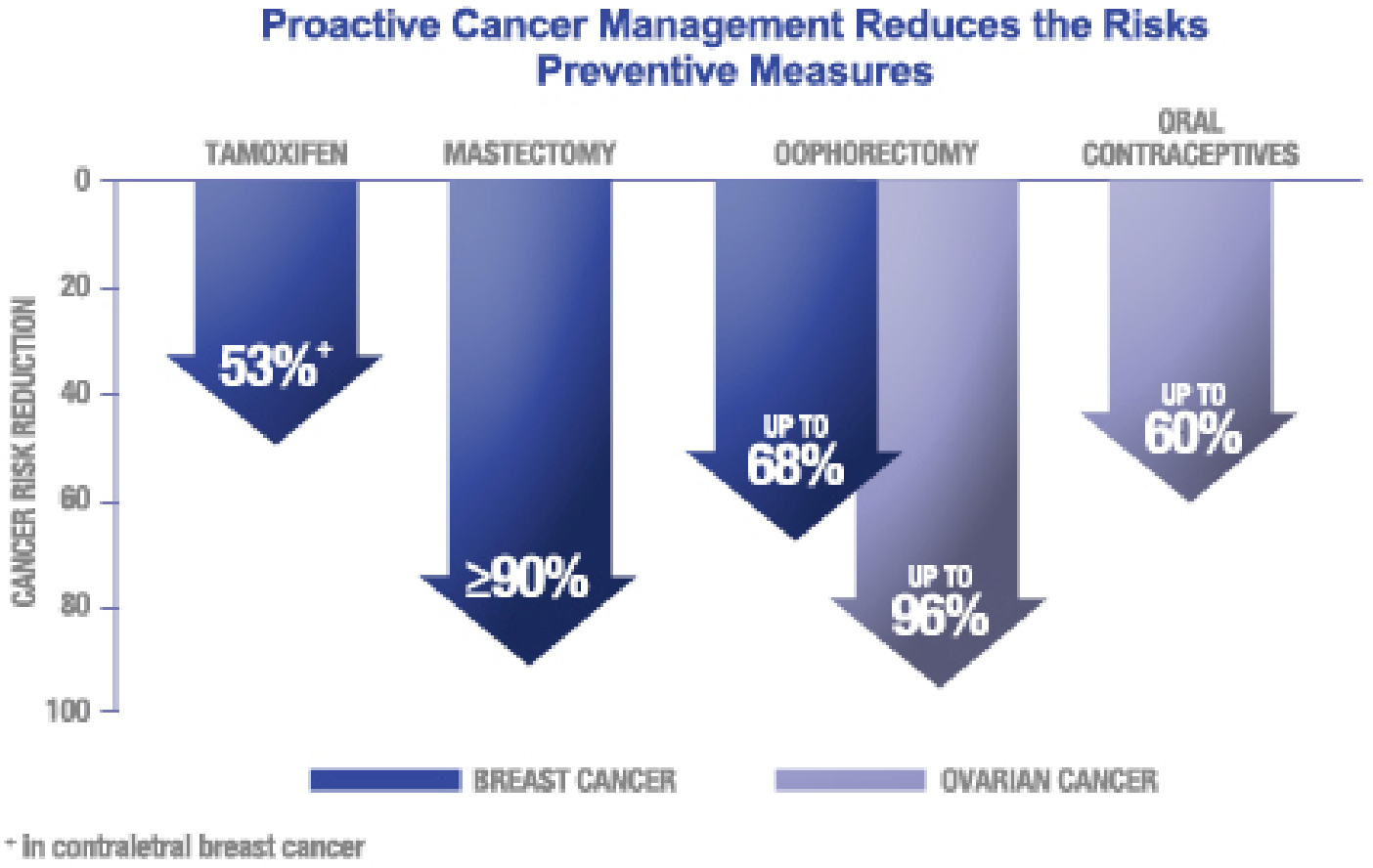


If mutations in *BRCA1* or *BRCA2* are suspected these should be evaluated with a genetic test

Quale Prevenzione oggi in Senologia?

Prevention

Primary Prevention – Hereditary Susceptibility



Prevention

Primary Prevention – Hereditary Susceptibility

Prophylactive Mastectomy (BRCA)

In both retrospective and prospective studies, risk-reducing of prophylactic bilateral mastectomy has been shown to decrease the incidence of breast cancer by as much as 90% or more in patients at risk of hereditary breast cancer and in BRCA 1 and BRCA 2 mutation carriers

J Natl Cancer Inst. 2012 Nov 7;93(21):1633-7

Prevention

Primary Prevention – Chemoprevention

Chemoprevention and Breast Cancer

Basics | Related FORCE Information | Advanced Reading | Other Websites

- Overview
- Tamoxifen
- Raloxifene
- Aromatase Inhibitors
- Nonsteroidal anti-inflammatory medications
- Statins
- Deslorelin
- Fenretinide
- Open clinical trials

Breast Cancer Surveillance and Chemoprevention
Recap of presentation by Drs. Jenny Yoon and Victoria Seewaldt from 2012 Joining FORCEs Conference.

Confronting Hereditary Breast and Ovarian Cancer
This FORCE-endorsed book was written by founder and Executive Director Sue Friedman; geneticist Rebecca Sutphen, MD; and health writer, Kathy Steligo. This book is a comprehensive resource on all topics related to hereditary cancer, genetic testing, and risk-management.

Breast Cancer Prevention Clinical Trials
Search for breast cancer prevention and detection studies through clinicaltrials.gov.

Chemoprevention for Breast Cancer
Article from Winter 2007 Joining FORCEs Newlsetter about different chemoprevention options.

Fenretinide as Chemoprevention for Breast Cancer
Article from Winter 2007 Joining FORCEs Newsletter about research on the vitamin A derivative Fenretinide as an option for breast cancer chemoprevention.

Quale Prevenzione oggi in Senologia?

Massimiliano D'Aiuto | Chirurgo – Oncologo – Senologo

Progetti ed Attività

Massimiliano D'Aiuto

Nato a Napoli il 7 settembre del 1971, si è Laureato in Medicina e Chi
Facoltà di Medicina e Chirurgia Federico Secondo di Napoli.
Oncologica con particolare riferimento alla Chirurgia Generale,
Senologia. In passato,ha lavorato come chirurgo ricercatore pres
Oncologia di Milano e presso l'Hotel Dieu di Parigi.

Dal 2006 è Chirurgo Oncologo Senologo presso il Dipartimento di Senologia dell'Istituto
Napoli. E' responsabile di numerosi progetti di ricerca, fra i quali il Progetto Underforty, il primo

Massimiliano DAiuto

Chirurgo Oncologo Senologo - Dipartimento di Senologia presso IRCCS Istituto Nazionale Tumori Fondazione G Pascale, Napoli, Italy
Senologo Chirurgo Oncologo presso CEINGE Biotecnologie Avanzate
Consulente Senologo presso IGEA medical
Italia

Visualizza profilo

BOLLETTINO UFFICIALE DELLA REGIONE CAMPANIA - N. 8 DEL 9 FEBBRAIO 2009

REGIONE CAMPANIA - Giunta Regionale - Seduta del 31 dicembre 2008 - Deliberazione N. 2102 - Area Generale di Coordinamento N. 20 - Assistenza Sanitaria – **Sperimentazione di un modello di disease management per la cura del carcinoma mammario in donne al di sotto dei quaranta anni denominato "WOMEN BREAST CARE UNDER FORTY".**

underforty

WOMENBREASTCARE

Quale Prevenzione oggi in Senologia?

CARCINOMA DELLA MAMMELLA

Chirurgo
Ginecologo
Endocrinologo
Oncologo
Radiologo
Medico di Base

Chi è il Senologo ?

PREVENZIONE PRIMARIA

PREVENZIONE SECONDARIA

TERAPIA

Chi Opera ???

???

Visita Senologica

Ecografia Mammaria

Mammografia

Screening Mammografico 50 – 69 anni

RMN Mammaria

Agoaspirato

Mammotome
Core-Biopsy

Chirurgia

Ginecologo
Chirurgo Generale
Chirurgo Oncologo
Chirurgo Plastico

Quale Prevenzione oggi in Senologia?

CARCINOMA DELLA MAMMELLA

Senologo Clinico

PREVENZIONE PRIMARIA

PREVENZIONE SECONDARIA

TERAPIA

Prevenzione Primaria

Screening Mammografico 50 – 69 anni

Link

Link

Breast Unit

Ecografia mammaria – Mammografia - RMN mammaria – Nuove tecnologie

venzione Senologica Attiva Personalizzata in base al rischio

Rimozione dei fattori di rischio eliminabili

Oggi nel mondo

Quale Prevenzione oggi in Senologia?

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2016
Breast Cancer Screening and Diagnosis

NCCN Guidelines Index
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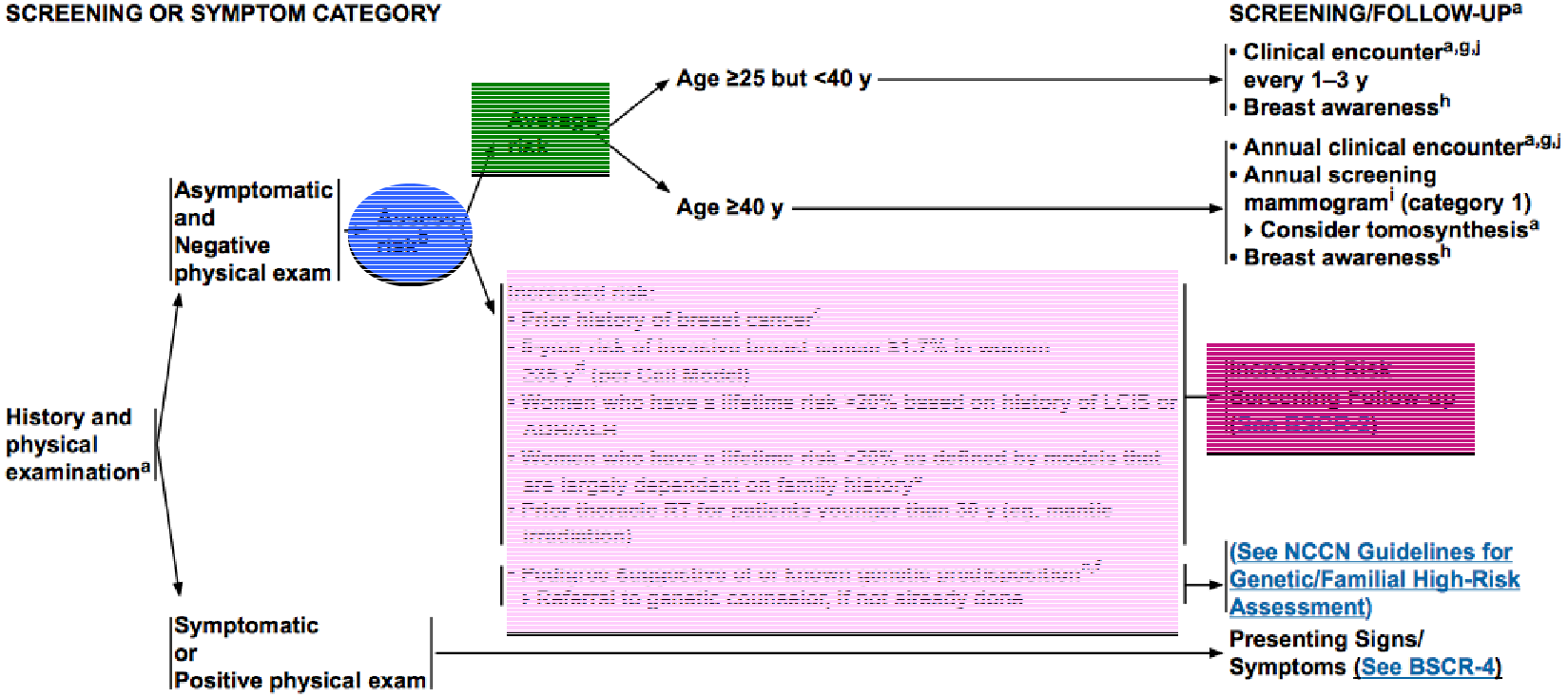
Discussion



Quale Prevenzione oggi in Senologia?

SCREENING OR SYMPTOM CATEGORY	SCREENING/FOLLOW-UP
Increased Risk: Prior history of breast cancer	See NCCN Guidelines for Breast Cancer - Surveillance Section
Women ≥35 y with 5-year Gail model risk of invasive breast cancer ≥1.7%[d] OR	• Clinical encounter[a,g,j] every 6–12 mo ‣ to begin at the age identified as being at increased risk by Gail model • Annual screening mammogram[i] ‣ to begin at the age identified as being at increased risk by Gail model ‣ Consider tomosynthesis[a] • Consider risk reduction strategies (See NCCN Guidelines for Breast Cancer Risk Reduction) • Breast awareness[h]
Women who have a lifetime risk >20% based on history of LCIS or ADH/ALH	• Clinical encounter[a,g,j] every 6–12 mo ‣ to begin at diagnosis of LCIS or ADH/ALH • Annual screening mammogram[i] ‣ to begin at diagnosis of LCIS or ADH/ALH but not less than age 30 y ‣ Consider tomosynthesis[a] • Consider annual MRI ‣ to begin at diagnosis of LCIS or ADH/ALH but not less than age 25 y (based on emerging evidence) • Consider risk reduction strategies (See NCCN Guidelines for Breast Cancer Risk Reduction) • Breast awareness
OR	
Women who have a lifetime risk >20% as defined by models that are largely dependent on family history[e]	• Clinical encounter[a,g,j] every 6–12 mo ‣ to begin at the age identified as being at increased risk ‣ Referral to genetic counseling if not already done • Annual screening mammogram[i] ‣ to begin 10 years prior to the youngest family member but not less than age 30 y ‣ Consider tomosynthesis[a] • Recommend annual breast MRI[k] ‣ to begin 10 years prior to youngest family member but not less than age 25 y • Consider risk reduction strategies (See NCCN Guidelines for Breast Cancer Risk Reduction) • Breast awareness[h]
Prior thoracic RT between the ages of 10 and 30 y — Current age <25 y	• Annual clinical encounter[a,g,j] ‣ beginning 8–10 y after RT • Breast awareness[h]
Prior thoracic RT between the ages of 10 and 30 y — Current age ≥25 y	• Clinical encounter[a,g,j] every 6–12 mo ‣ Begin 8–10 y after RT • Annual screening mammogram[i] ‣ Begin 8–10 y after RT but not prior to age 25 y ‣ Consider tomosynthesis[a] • Recommend annual breast MRI[k] ‣ Begin 8–10 y after RT but not prior to age 25 y • Breast awareness[h]

Il Programma

Quale Prevenzione oggi in Senologia?

20-30 anni

0,3 % delle diagnosi di cancro al seno

La possibilità di effettuare, almeno una volta nei 10 anni, una **visita** senologica con **ecografia mammaria** per insegnare l'autopalpazione, definire la classe di rischio e modificare lo stile di vita

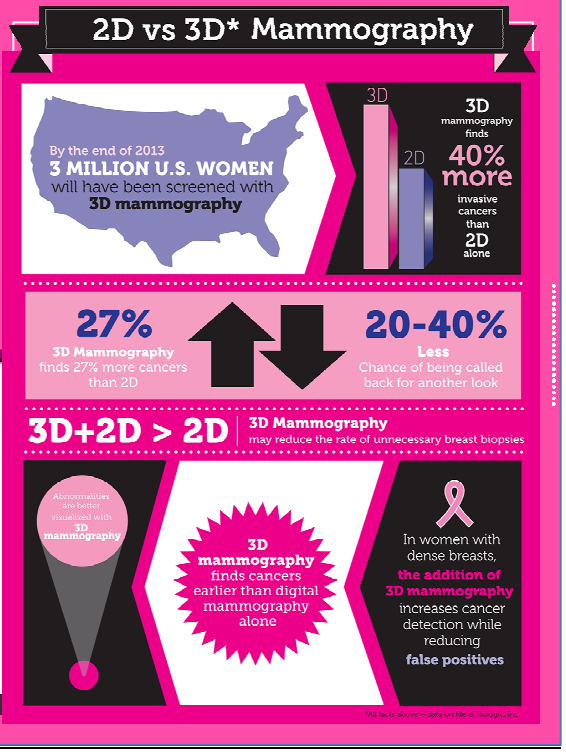
30-40 anni

5,9 % delle diagnosi di cancro al seno

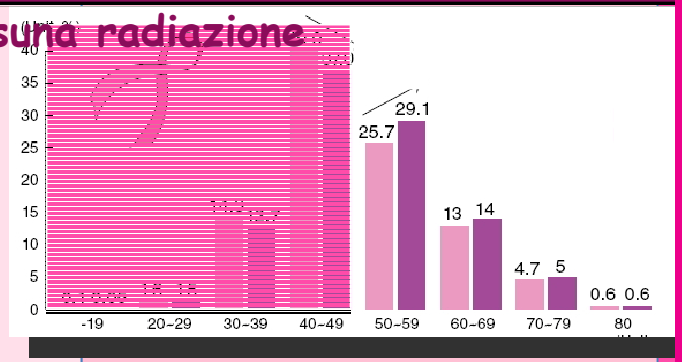
Una **visita** senologica con **ecografia mammaria** **ogni anno** per identificare precocemente eventuali lesioni tumori e modificare lo stile di vita

40-50 anni

24,7 % delle diagnosi di cancro al seno



Nessuna radiazione



Quale Prevenzione oggi in Senologia?

20-30 anni	30-40 anni	40-50 anni
0,3 % delle diagnosi di cancro al seno	5,9 % delle diagnosi di cancro al seno	24,7 % delle diagnosi di cancro al seno

Table 4. Factors That Increase the Risk for Breast Cancer in Women

Relative Risk	Factor
>4.0	• Age (65+ vs. <65 years, although risk increases across all ages until age 80) • Biopsy-confirmed atypical hyperplasia • Certain inherited genetic mutations for breast cancer (BRCA1 and/or BRCA2) • Mammographically dense breasts • Personal history of breast cancer
2.1-4.0	• High endogenous estrogen or testosterone levels • High bone density (postmenopausal) • High-dose radiation to chest • Two first-degree relatives with breast cancer
1.1-2.0	• Alcohol consumption • Ashkenazi Jewish heritage • Early menarche (<12 years) • Height (tall) • High socioeconomic status • Late age at first full-term pregnancy (>30 years) • Late menopause (>55 years) • Never breastfed a child • No full-term pregnancies • Obesity (postmenopausal)/adult weight gain • One first-degree relative with breast cancer • Personal history of endometrium, ovary, or colon cancer • Recent and long-term use of menopausal hormone therapy containing estrogen and progestin • Recent oral contraceptive use

- ~~Medio Rischio~~

-Alto Rischio

-Alto Rischio con mutazione del BRCA

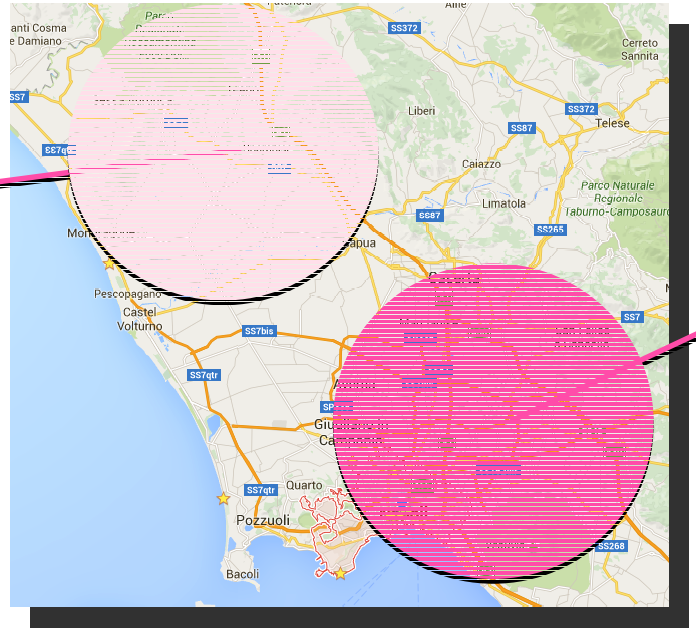
→ RMN Mammaria

Quale Prevenzione oggi in Senologia?

20-30 anni	30-40 anni	40-50 anni
1,6 % delle diagnosi di cancro al seno	15 % delle diagnosi di cancro al seno	40 % delle diagnosi di cancro al seno

Casi Clinici da sottoporre a Procedure Interventistiche

CENTRO DI II LIVELLO

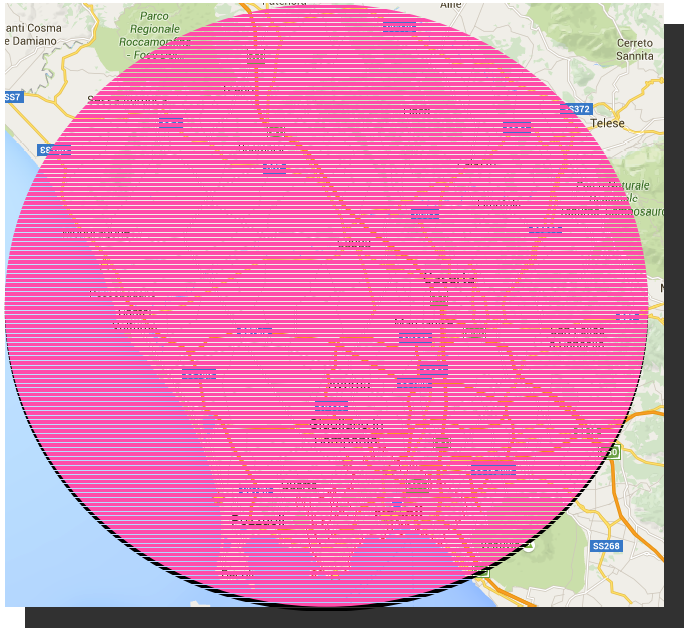


CENTRO DI II LIVELLO

Quale Prevenzione oggi in Senologia?

20-30 anni	30-40 anni	40-50 anni
0,3 % delle diagnosi di cancro al seno	5,9 % delle diagnosi di cancro al seno	24,7 % delle diagnosi di cancro al seno

Casi Clinici da Trattare Chirurgicamente



Quale Prevenzione oggi in Senologia?