

# Breast Cancer Treatment: New Development and New Decisions

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# Disclosures

- None

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- A 60 year old woman who has just learned she has early stage breast cancer is asking you for advice.
  - Mastectomy or breast conservation?
  - Breast reconstruction?

- “I felt the best thing to do, and the smartest thing was just to get rid of it. It’s bad. Don’t take chances. I knew me. I could not live every day wondering, ‘Oh, is there any left?’”

Tina S., chose mastectomy

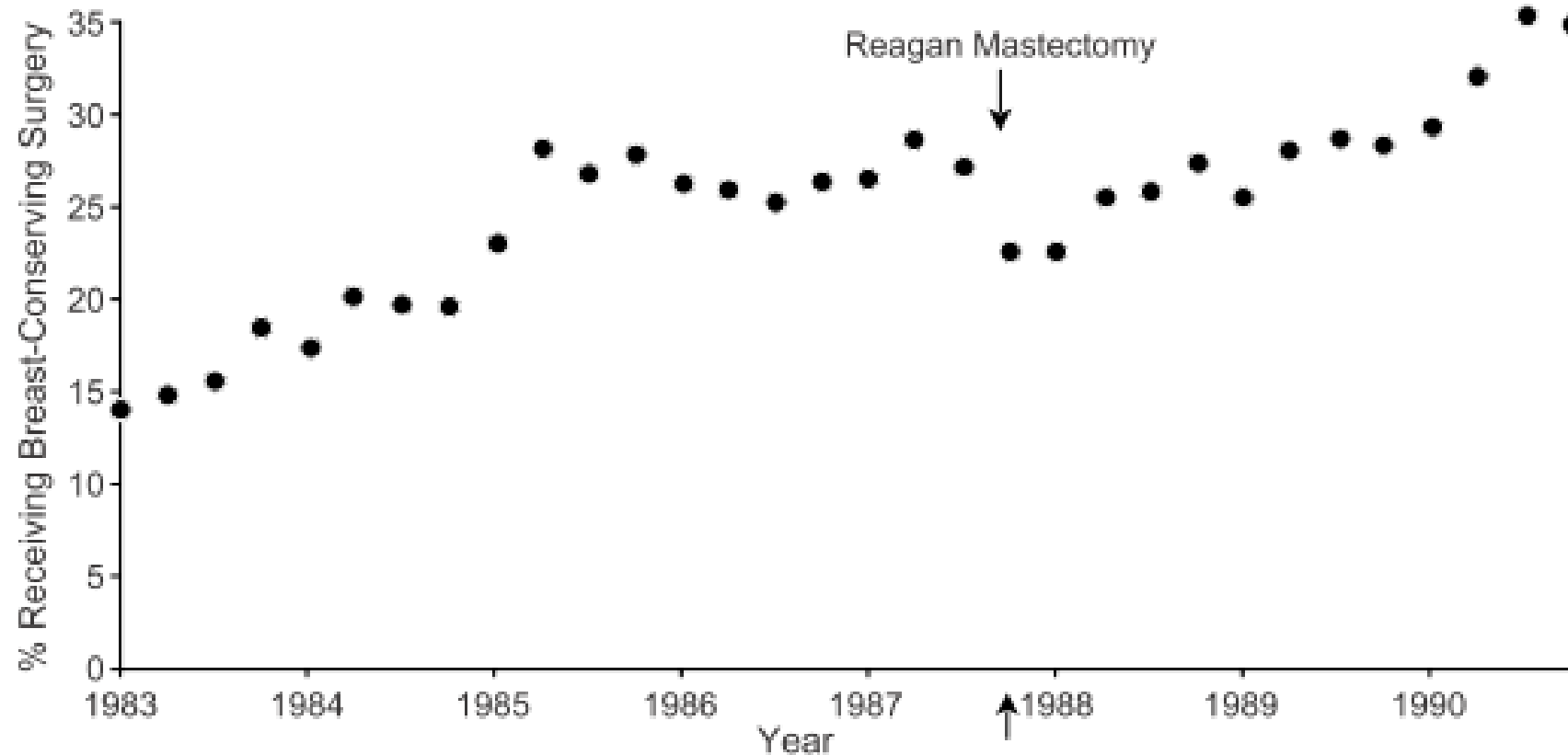
- “I was pretty clear I . . . If at all possible I didn’t want a mastectomy. I didn’t want to be a jerk about it, but if it wasn’t necessary I didn’t want to go that route.”

Margie G., chose breast conservation

# Decisions about surgery for breast cancer

- Mastectomy versus breast conservation
- Breast reconstruction after mastectomy

# Surgery for breast cancer



Nattinger A, JAMA 1999



# What is associated with type of surgery?

- Location
- Insurance
- Age
- Race

Nattinger A, NEJM 1992  
Voti L, Cancer, Jan 2006  
Schroen A, JCO, Oct 2005

How are these decisions being  
made?

# Surgery decisions

- Knowledge
- Preferences
- Involvement

# Knowledge Surgery

- “The chances of being alive 5 years after surgery are the same for mastectomy as they are for lumpectomy with radiation therapy.”
  - 48.5% correctly answered “true”.

# Knowledge Surgery

- “The chances that breast disease will come back after treatment are the same for mastectomy as they are for BCS with radiation therapy.”
  - 18.7% correctly answered “false”.

# Surgery decisions

## Knowledge

- Mastectomy and breast conservation have equivalent survival. 55%
- Risk of local recurrence is higher after breast conservation. 45%
- Overall 52%

# Knowledge about surgery with decision support

- Recurrence 63%
- Survival 98%
- Implications of recurrence 91%
- 35% chose mastectomy.

# Surgery decisions Preferences

- Associated with mastectomy:
  - “Getting rid of the disease”
  - Avoiding more surgery
  - “Do everything possible”
  
- Associated with BCS:
  - Keeping one’s breast

Katz S, J Women’s Health 2001  
Moelnaar, Br J Cancer, 2004  
Collins E, J Clin Onc, 2009



# Surgery decisions Preferences

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<b>Characteristic</b>	<b>Odds ratio</b>	<b>95% CI</b>
Keep your breast	0.76	0.68, 0.86
Remove your breast for peace of mind	1.70	1.49, 1.95
Avoid radiation therapy	1.28	1.14, 1.43
Doctor mentioned mastectomy	25.66	7.27, 90.59

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# Surgery decisions

## Involvement in decision making

- BC patients want more information than they receive.
- Providers frequently do not know how much patients want to participate in decision making.
- Greater participation in decision making is associated with mastectomy.

Arora et al, Pt Educ Couns, 2002

Gray et al, Pt Educ Couns, 1998

Bruera E, Cancer, 2002

Lantz P, Health Serv Res, 2005

# Information

- Most women (73%) receive information about both options, but 21% about BCS only.
- Older Latina women receive less information from their providers.
- Minority women have fewer BC survivor contacts, fewer family/friend contacts who provide information.

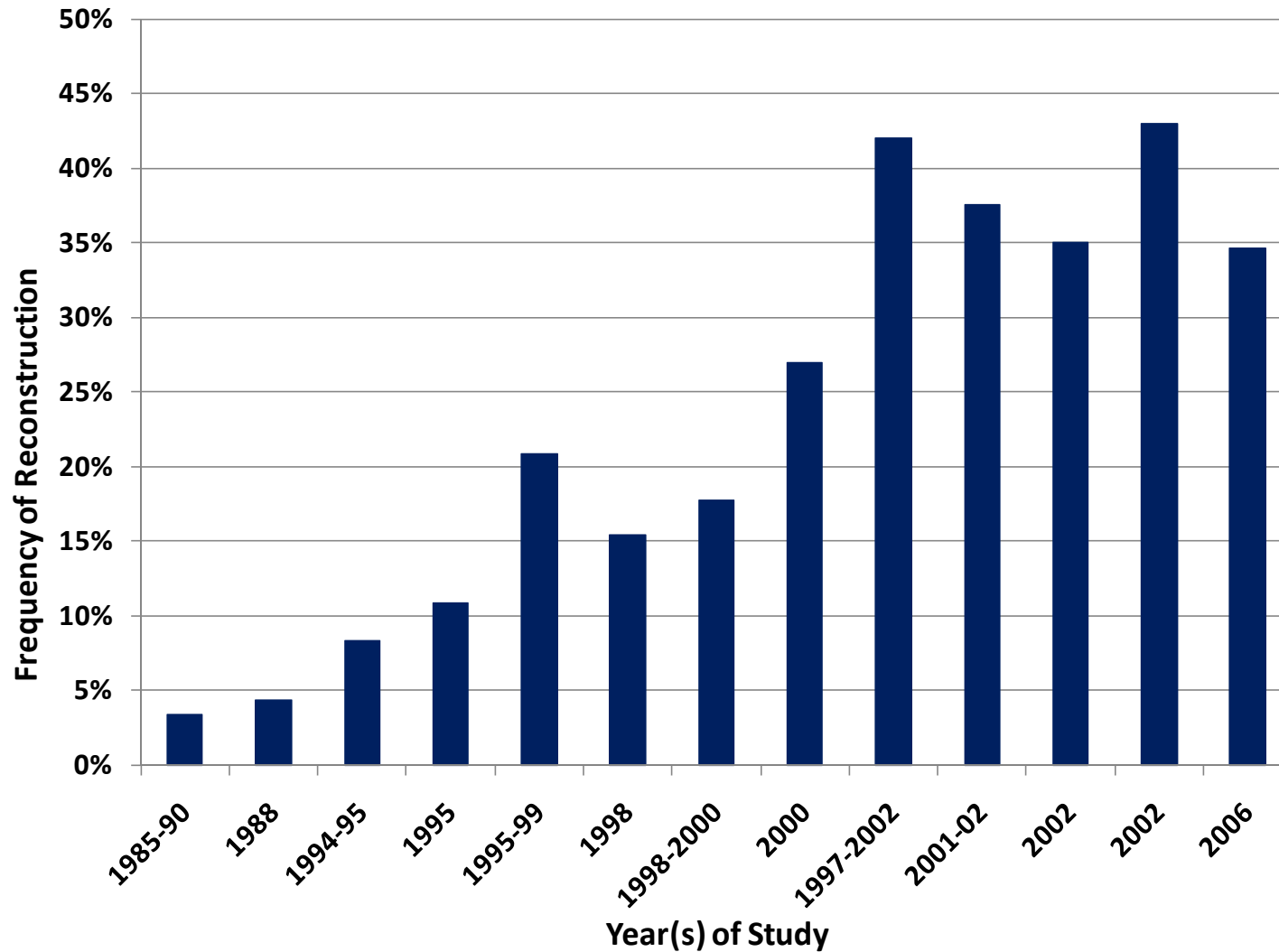
Hawley S, Health Serv Res, 2005

Maly et al, Cancer, 2003

Hawley S, Health Serv Res, 2008

# Breast reconstruction after mastectomy

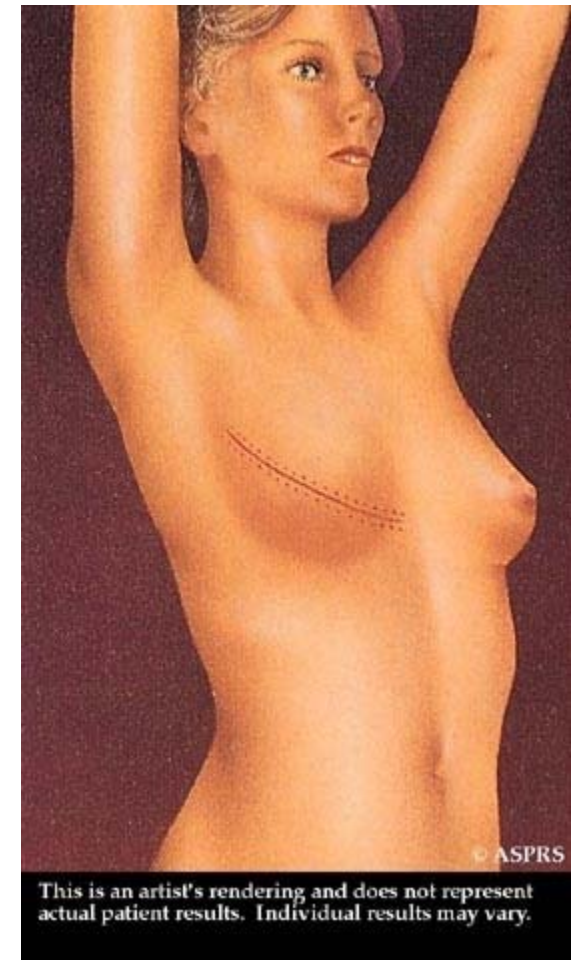
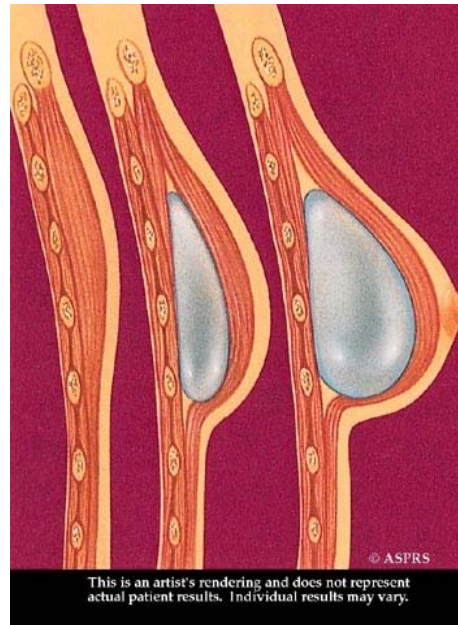
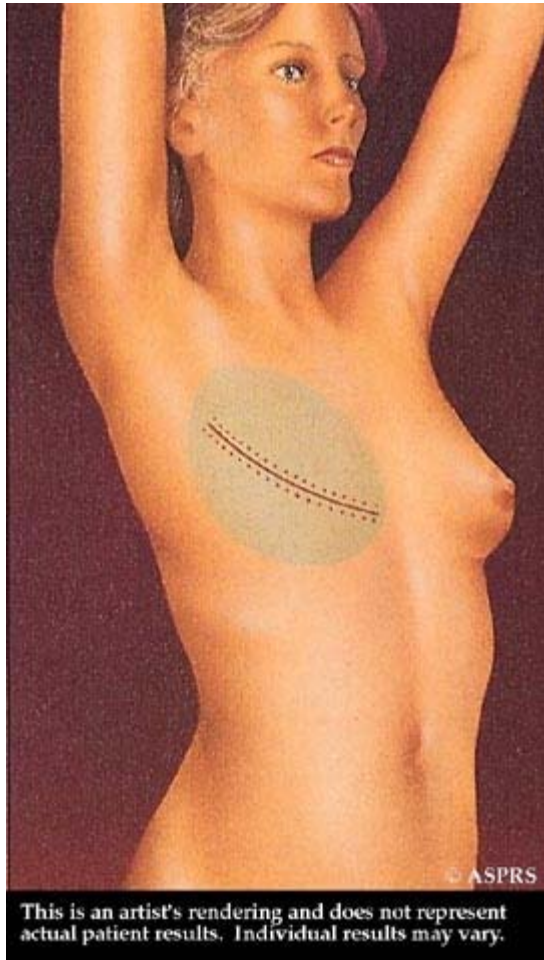
# Breast reconstruction rates Over time



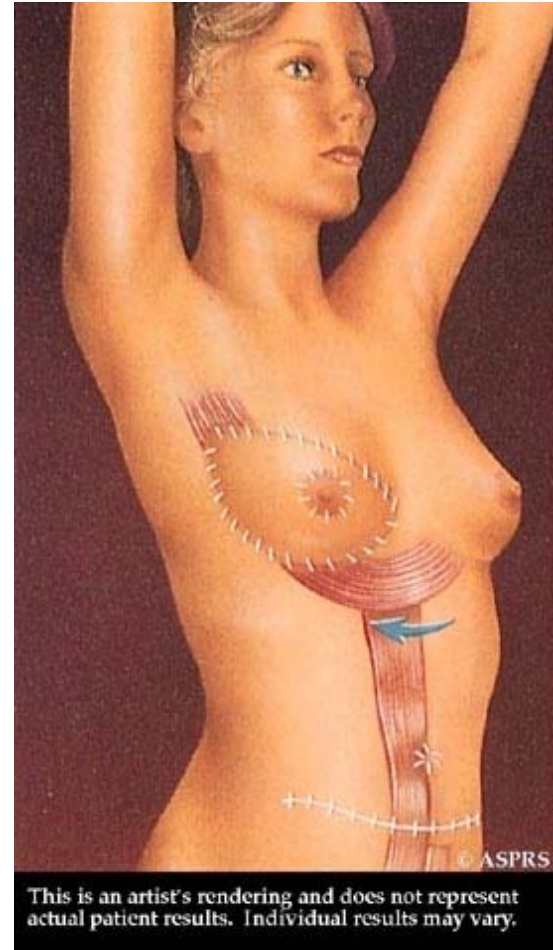
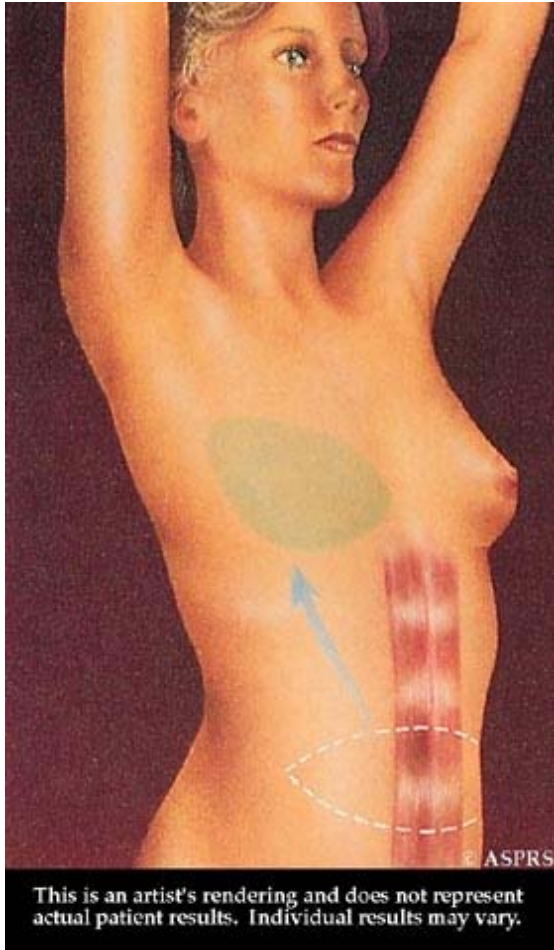
# Factors associated with reconstruction

- Location
- Insurance
- Age
- Race

# Implant-based reconstruction

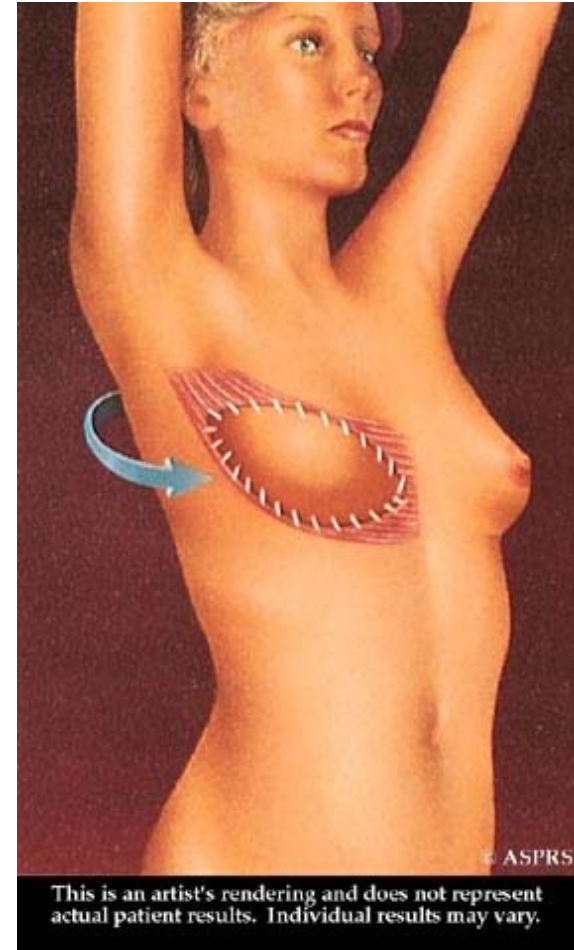
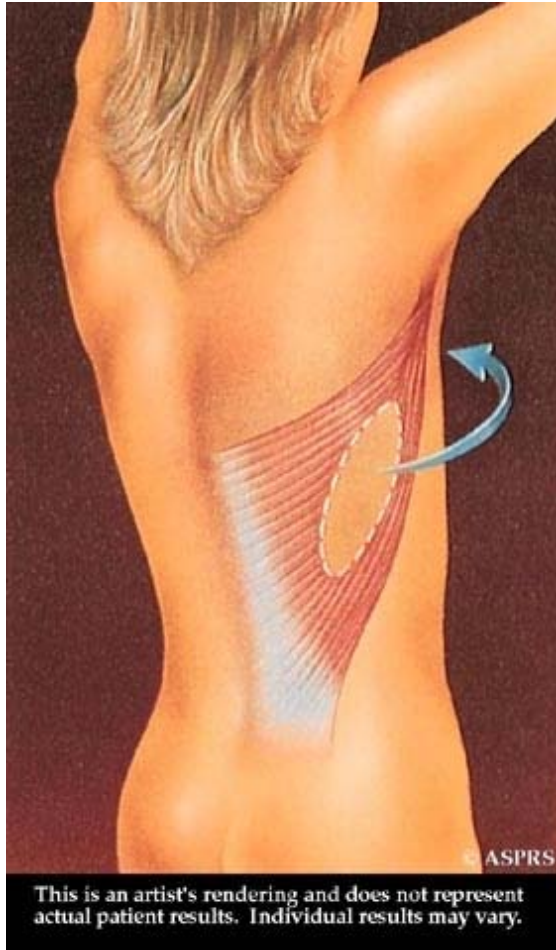


# TRAM flap





# Latissimus flap



# Reconstruction decisions

## Knowledge

- Complication rate after reconstruction 4%
- Satisfaction with flaps vs implants 15%
- Effect on future surveillance 43%
- Recovery after flaps vs implants 57%
- Overall 37.5%

# Reconstruction decisions

## Preferences

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<b>Characteristic</b>	<b>Odds ratio</b>	<b>95% CI</b>
Use your own tissue	1.31	1.02, 1.61
Avoid foreign material in body	0.68	0.52, 0.90
Avoid wearing a prosthesis	1.25	1.04, 1.51
Wake up w/ recon begun	1.25	1.06, 1.49

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# Reconstruction decisions Preferences

- Fear of surgery associated with no reconstruction.
- Concern about body image associated with reconstruction.

# Reconstruction decisions

## Involvement in decision making

- 78-82% of women report being informed of reconstruction.
  - Associated with younger age, education, higher income.
- Latina women more likely to want information about reconstruction, less likely to report discussion.

Morrow M, Cancer, 2005

Chen J, J Gen Int Med, 2008

Greenberg C, J Amer Coll Surg, 2008

Alderman A, J Clin Onc, 2009

# Patient decision aids

- Tool to help patients make better decisions
  - Inform
  - Clarify preferences
  - Prepare



# Patient decision aids

- Patients who use decision aids
  - Have higher knowledge
  - Are more involved in decision making
  - Experience less decisional conflict