

*The Ins and Outs on Breast  
Implants*

# Objectives

- ❑ *Illustrate a brief history of implants*
- ❑ *Define the ways that cancer may be involved with implants*
- ❑ *Compare the various types of implants and how they are inserted*
- ❑ *Be able to discuss the maintenance involved with implants*
- ❑ *Identify and explain how imaging is involved within the world of implants*

*Let's practice empathy within this situation.*



<https://realestateright.weebly.com/blog/i-want-to-walk-a-mile-in-your-shoes>

# You are.....

- 20 year old female
- In college
- Contemplating on getting breast implants
- Although nervous, you make the leap and have the surgery

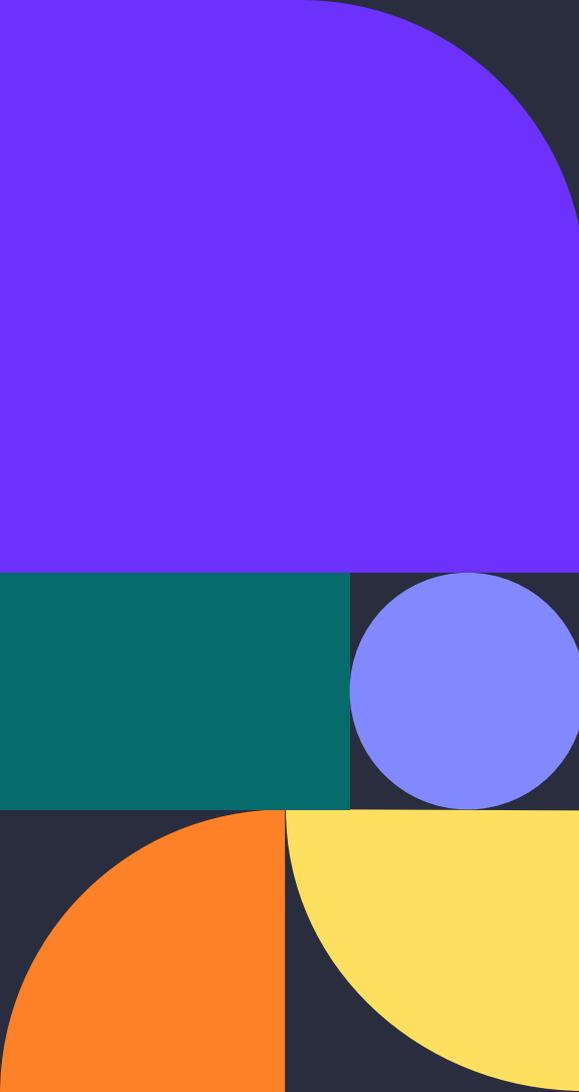


*These are some questions that may be running through our patient's minds*



<https://www.barbiesbeautybits.com/2021/09/10-most-popular-questions-about-breast.html>

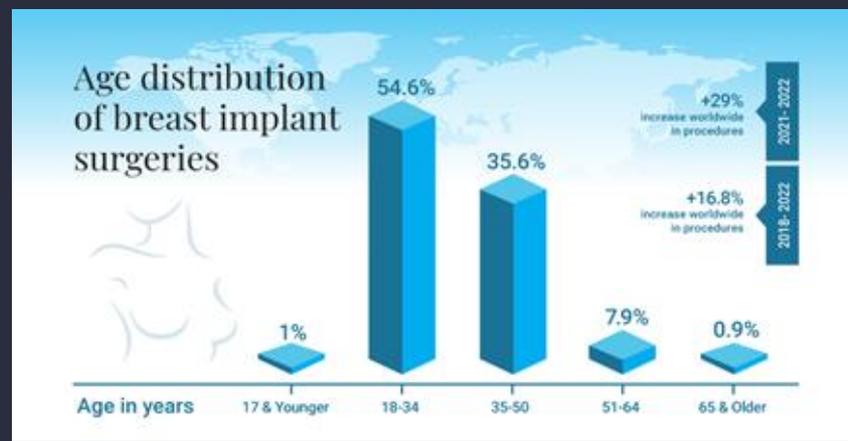
- Did I make the right decision?*
- When do I have to get them replaced?*
- Am I at a higher risk for breast cancer?*
- What complications could I have?*



# *What Will Be Discussed Within This Presentation?*

- Statistics on implants*
- History on implants*
- The various types of implants*
- How implants are inserted*
- Imaging with implants*
- Reasons why patients may get implants*
- Benefits/risks*

# Statistics



<https://torontoplasticsurgeon.com/blog/breast-augmentation-implants-statistics-2023>

- ❑ 300,000 breast implant surgeries are performed every year in the U.S.
- ❑ Most common in women from Western Countries
- ❑ In 2022, 16.5% of all plastic surgeries were breast augmentations
- ❑ Average age is 35
- ❑ USA, Brazil and Mexico
  - ❑ Have the highest number of breast implants (Toronto Plastic Surgeons, 2024)

# History

□ 1889

- Surgeon Robert Gersuny used paraffin and vaseline injections for breast augmentations
- Breast size increased
  - BUT ... the breasts became hard
  - Severe, chronic and disfiguring inflammatory response was the result

□ 1895

- A surgeon transplanted fat from the lower back to the breasts

(Dr. Mele, 2026)

# History

- ❑ *1950s-1960s*
  - ❑ *Free silicone was injected into the breast*
    - ❑ *Good results at first*
    - ❑ *Breast hardening*
    - ❑ *Sometimes required mastectomy*
      - ❑ *Silicone migrated to other areas*
      - ❑ *Reaction and lumps*

*(Dr. Mele, 2026)*

# History

- ❑ 1962 – The first augmentation mammoplasty was performed
- ❑ 1964 – The French company Laboratories Arion developed and manufactured saline filled breast implants
- ❑ 1993 – The next generation of breast implants are complete, tested, and ready for submission for FDA studies in the U.S. and Europe

*(Dr. Mele, 2026)*



## Increased risks



**GENETICS**  
Inherited DNA changes in genes

**GENDER**  
Being female



**FAMILY HISTORY**  
Mother, sister, daughter has had breast cancer

**BREAST DENSITY**  
High-density breasts



**AGE**  
Getting older

CONTACT YOUR HEALTH CARE PROVIDER IF YOU HAVE ONE OR MORE OF THESE RISKS

Breast cancer usually has no symptoms when the tumor is small and most treatable.

# Higher Risk of Cancer?

- *New concern*
    - *A rare form of cancer*
    - *May be more common with women who have breast implants*
  - *Anaplastic large cell lymphoma*
  - *Found in the scar tissue surrounding the implant*
  - *1 in 3800 to 1 in 30,000*
  - *400-500 cases reported to FDA*
    - *Highest association is with textured breast implants*
      - *Texture may be causing inflammation*
- (Do Women with Breast Implants Have a Higher Risk of Cancer?, 2019)*

<https://www.potawatomi.org/blog/2017/10/06/think-pink-october-breast-cancer-awareness-month/>

# Higher Risk? Continued

- ❑ Typically the cancer resides locally
  - ❑ Within the tissues around the implant
- ❑ Removal of the implant and removal of the capsule
  - ❑ Can cure the patient of the lymphoma
- ❑ In rare instances...
  - ❑ The lymphoma can spread
    - ❑ To the lymph nodes
    - ❑ Or elsewhere
    - ❑ BUT the most common -local

*(Do Women with Breast Implants Have a Higher Risk of Cancer?, 2019)*

# Types of Implants

- ❑ *Saline*
- ❑ *Structured Saline*
- ❑ *Silicone*
- ❑ *Gummy Bear*
- ❑ *Round breast implants*
- ❑ *Textured breast implants*
- ❑ *Smooth breast implants*

*(American Society of Plastic Surgeons, 2026)*



<https://www.plasticsurgeryinflorida.com/which-type-of-breast-implant-is-the-best/>

# Types of Implants

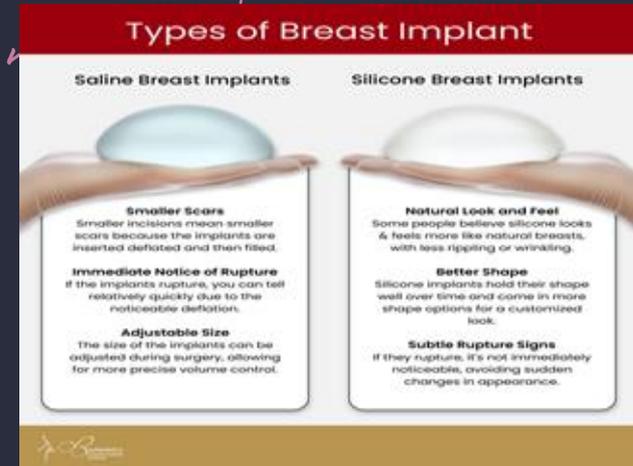
## Saline

- ★ Filled with sterile salt water
- ★ If the shell leaks, a saline implant will collapse and the saline will be absorbed and naturally be expelled by the body
- ★ Provides a uniform shape
- ★ FDA-approved for augmentation in women age 18(+)

(American Society of Plastic Surgeons, 2026)

## Structured Saline

- ★ Filled with sterile salt water
- ★ Contains an inner structure which makes the implant feel more





# Types of Implants

(American Society of  
Plastic  
Surgeons, 2026)

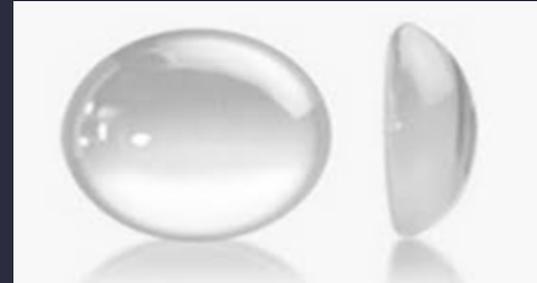
## Round

- ★ Breasts appear fuller than form-stable implants
- ★ Higher profile options can achieve even more projection
- ★ Since round implants are the same shape all over, there is less concern about them rotating out of place



## Smooth

- ★ Very soft feeling
- ★ They can move with the breast implant pocket, which may give a more natural movement
- ★ Smooth implants may have some palpable or visible rippling under the skin

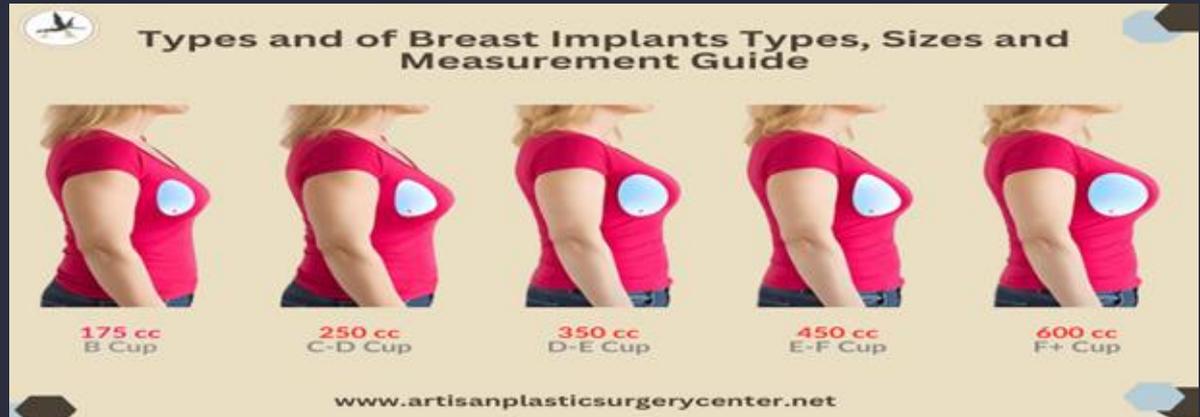


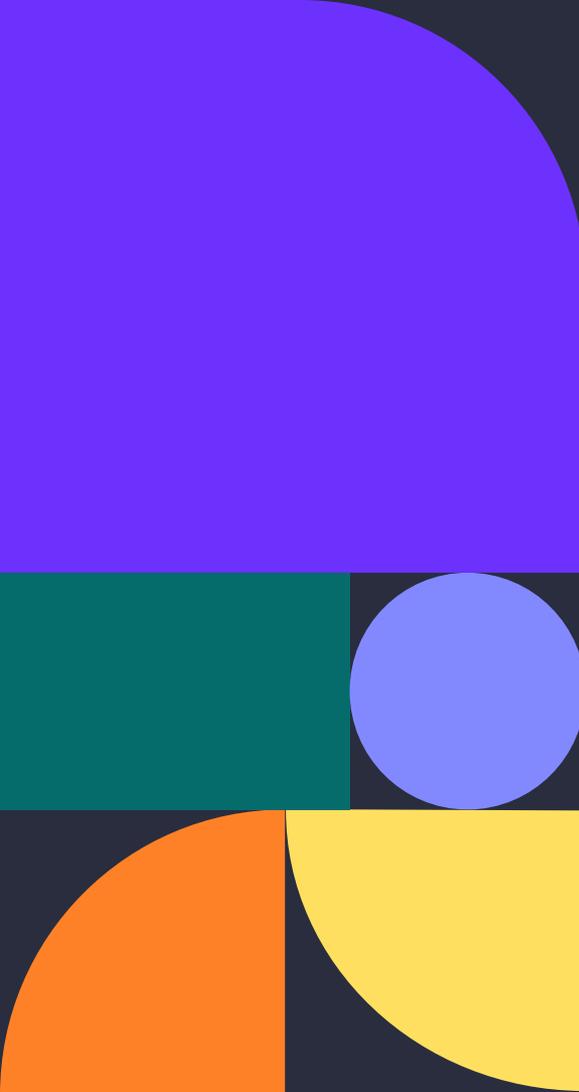
# Types of Implants

## Textured

- ★ Develop scar tissue to stick to the implant, making them less likely to move around inside of the breast and become repositioned
- ★ Texturing offers some advantage in diminishing the risk of a tight scar capsule
- ★ Although, a higher risk for anaplastic large cell lymphoma

(American Society of  
Plastic Surgeons, 2026)



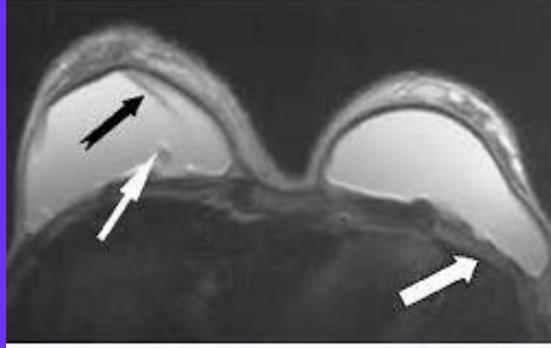


# How are Implants Inserted?

- ❑ *Transaxillary*
  - ❑ *Incision is placed in the crease of the armpit*
- ❑ *Areolar or Periareolar*
  - ❑ *Incision at the areolar or periareolar*
- ❑ *Inframammary*
  - ❑ *Most common*
  - ❑ *Creates opening under breasts*
  - ❑ *Great control for surgeons*

*(Breast Augmentation Incision Placement, 2020)*

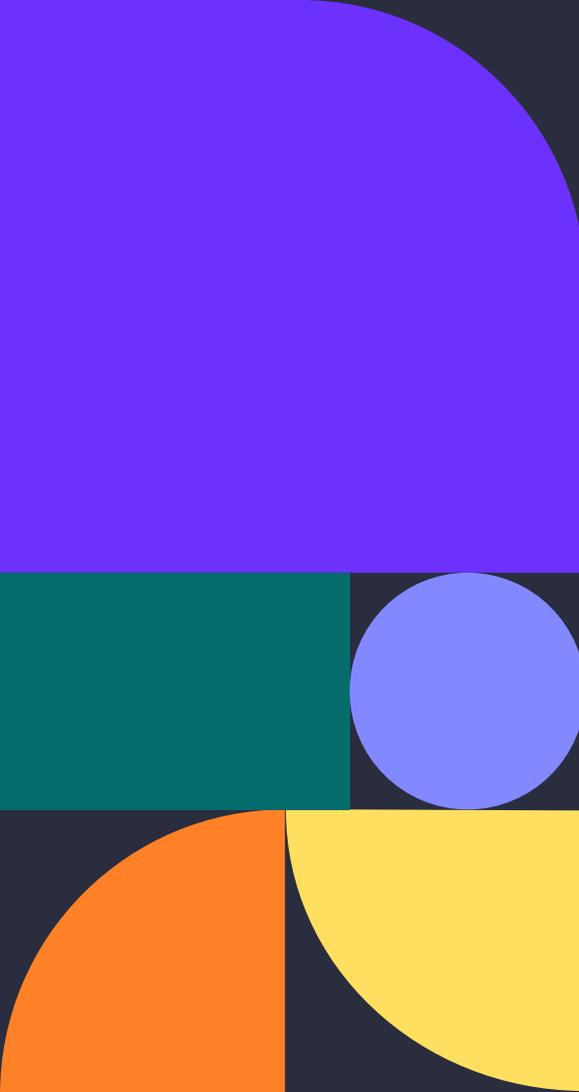
# Breast Implant Leaks



<https://www.semanticscholar.org/paper/The-diagnosis-of-breast-implant-rupture%3A-MRI-with-H%C3%B6lmich-Vejborg/3b745fc889bc69aea2682dcfef6610fa5019a3c/figure/13>

- ❑ *Tear/hole*
- ❑ *Typically no symptoms*
  - ❑ *Pain or changes in shape may be present*
  - ❑ *Not thought to cause*
    - ❑ *Breast cancer*
    - ❑ *Reproductive harm*
    - ❑ *Connective tissue damage*
  - ❑ *Might not notice*
    - ❑ *Silent rupture*
      - ❑ *Do not cause symptoms*
      - ❑ *Found during US or MRI*

*(Mayo Clinic, 2024)*



# Breast Implant Leaks Continued

- ❑ Tissue around implant can become irritated
- ❑ Additional scar tissue
  - ❑ Leading to
    - ❑ Changes in size/shape
    - ❑ Lumps
    - ❑ Hardening
    - ❑ Pain/soreness/Swelling/Numbness

*(Mayo Clinic, 2024)*

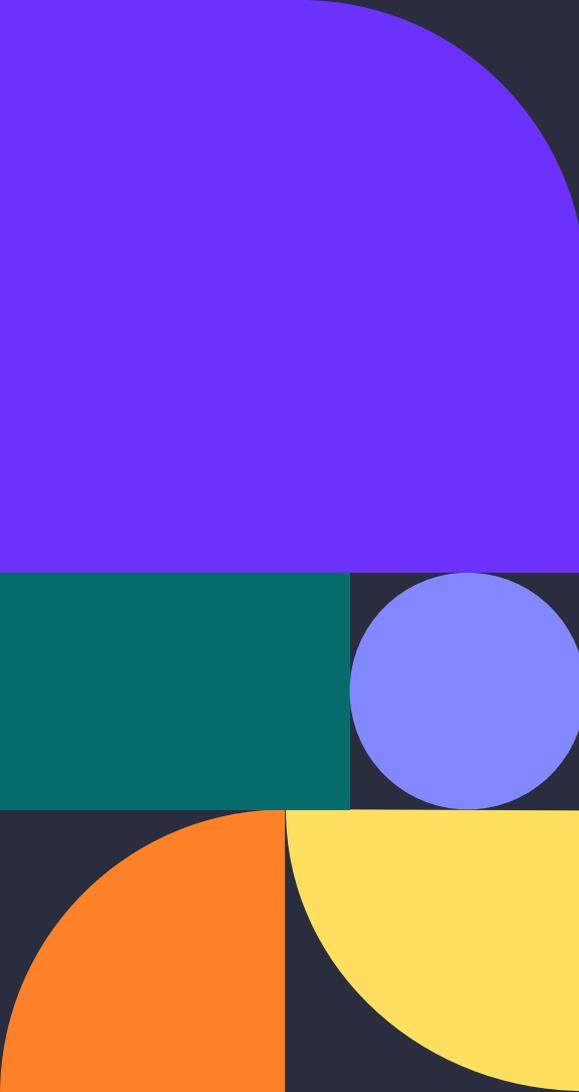
# Maintenance



<https://www.alluremedspa.in/breast-augmentation-surgery/breast-implant-care-guide/>

- ❑ *Implants are not guaranteed for life*
- ❑ *More time = higher chance for rupture*
- ❑ *The U.S. Food and Drug Administration recommends breast imaging beginning 5 to 6 years after an implant is placed*
  - ❑ *And then every few years after that*
  - ❑ *Purpose = make sure that implants aren't damaged*

*(Shari Roan, 2022)*



# Maintenance Continued

- ❑ *FDA - 2011 -*
  - ❑ *After 10 yrs of having silicone implants*
    - ❑ *1 in 5 need a revision procedure*
- ❑ *Helpful monitoring*
  - ❑ *Self-exams*
  - ❑ *Physician exams*
- ❑ *10-15 yrs is most common for removal*

*(Shari Roan, 2022)*

# Breast Implants & Imaging

- ❑ *The gold standard for breast imaging are mammograms*
  - ❑ *Women with implants are still encouraged to get their yearly screenings and also to continue to do home breast exams as normal*

# Breast Implants & Imaging

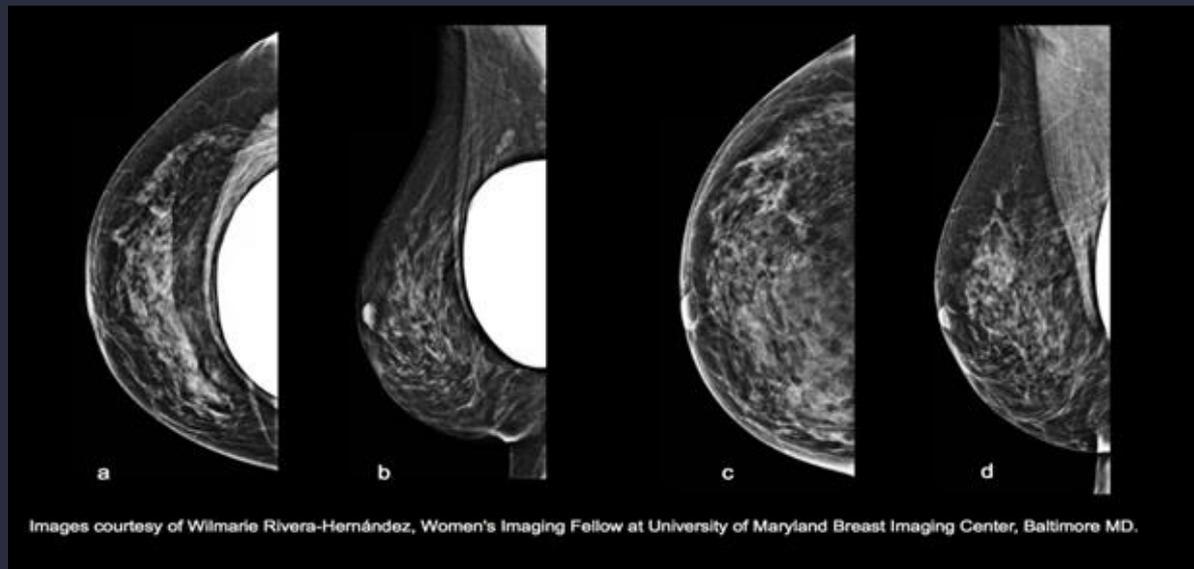


<https://www.edinaplasticsurgery.com/getting-a-mammogram-with-breast-implants/>

# Breast Implants & Imaging

- ❑ 8 images are taken during a mammogram for a patient who has implants
  - ❑ 4 images with the implants in place
  - ❑ 4 images with the implants displaced (pushed back out of the image)

# Breast Implants & Imaging



<https://epos.myesr.org/posterimage/esr/ecr2017/137698/mediagallery/711155?deliveroriginal=1>

- ❑ Mammogram image to the left is with implant in place
- ❑ Mammogram image to the right is with implant displaced

# Where are Implants Headed in the Future?

- ❑ *Natural looking breasts*
  - ❑ *Smaller implants*
  - ❑ *Fat transfers*
    - ❑ *Low rejection risk*
- ❑ *Advancements in technology*
  - ❑ *Safety and comfort*
- ❑ *Minimally invasive procedures*
  - ❑ *New instruments - smaller incisions*
- ❑ *AI-Assisted Planning: Artificial intelligence helps surgeons make precision-based decisions tailored to unique anatomy*

*(Chesterfield Plastic Surgery & Geiger, 2025)*

# Benefit Vs. Harm

- ❑ *Patient care/Healthcare workers*
  - ❑ *Patient attitude - Happy/Mad/Sad*
  - ❑ *Educate patients*
  - ❑ *More time needed for patients with implants*
- ❑ *Health of Patient*
  - ❑ *Higher self-esteem*
  - ❑ *Chance for rupture*
  - ❑ *Chance for lymphoma and other health problems*
- ❑ *Breast implant effects video*



<https://www.center4research.org/breast-implants/>

# How Does This Relate to Women's Imaging?

- ❑ *Some patients have implants*
  - ❑ *Mammo, US, MRI*
- ❑ *Extra time during exams*
  - ❑ *Extra views*
- ❑ *May need to educate pts*
  - ❑ *Nervous about mammo - rupture*
  - ❑ *Anxious about possible findings -cancer*
- ❑ *Knowledge and empathy is key*
  - ❑ *For us as technologists but also to provide to our patients*
    - ❑ *What to say/answering questions*
    - ❑ *Ensure that we do the right thing*



<https://breastcancereducation.org/>

# Writer's Voice

- ❑ *Everyone needs to do what they feel is best*
- ❑ *If implants is something that someone is interested in*
  - ❑ *Educate yourself*
    - ❑ *Research*
    - ❑ *Ask your PCP*
    - ❑ *Schedule an appointment to discuss options*
- ❑ *There is no right or wrong answer*
  - ❑ *Each person will have differing views*



<https://herscan.com/facts/posts/easy-access-to-ultrasound-technology>

# Summary

- ❑ *Two common reasons for breast implants*
  - ❑ *To have larger breasts*
  - ❑ *Patient had a mastectomy*
- ❑ *There are many types of breast implants*
- ❑ *“One size does not fit all”*
  - ❑ *10 years is not the magical number for removing implants*
- ❑ *May or may not have symptoms from a rupture*
  - ❑ *May look/feel different*
- ❑ *Every patient needs to do what they think is best*
  - ❑ *Education and research*



<https://drpragnya.com/blog/breast-density-education/>

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