
Skin Marking in Mammography: Patients Speak Out

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Introduction

The use of skin markers during mammography is a simple and effective way to identify palpable masses, non-palpable areas of concern or pain, moles, surgical scars, and nipples. Their consistent use improves communication across the care team and can help make interpreting mammograms more accurate and efficient for the radiologist.

When a technologist places a skin marker on the patient's breast, they are not only improving the clinical process but are also playing a pivotal role in the patient's understanding of the purpose and benefit of skin markers, thereby enhancing the overall patient experience.

Mammography Patient Survey

To assess patients' awareness of skin markers, their usage, and how that impacts their perceptions about their imaging facility, a blind, random, anonymous online survey was conducted in March 2021.¹ Survey respondents were as follows:

- Women between the ages of 40 and 80 across the United States
- Median age 52
- Have had at least one mammogram
- Total of 580 responses included in the analysis

Key Discoveries

SKIN MARKER AWARENESS	SKIN MARKER USAGE	PATIENT PERCEPTION
Percentage of respondents who are aware of skin markers used during mammography: 59%	Percentage of women who have had a skin marker placed during a mammogram: 44%	How use of skin marker made respondent feel about their breast imaging center: <ul style="list-style-type: none">• Getting the best care: 41%• More confident are getting an accurate mammogram: 47%• Cared for: 22%
Of those respondents who are aware of skin markers, percentage that DID NOT know skin markers provide important information to the radiologist: 29%	Type of skin marker used: <ul style="list-style-type: none">• Nipple: 40%• Mole: 30%• Scar: 18%• Palpable lump: 15%• Area of pain: 9%• Did not remember: 18%	Percentage of respondents who have had a skin marker placed and felt it was "Absolutely Essential" or "Very Important" that their imaging center use skin markers: 79%

A Deeper Dive Into the Survey Results

Awareness of Skin Markers Used During Mammography

While nearly 60% of survey respondents were aware of skin markers used during mammography (see Figure 1), nearly one third of those individuals did not know why they are used nor that they provide important information to the radiologist when reviewing their mammogram (see Figure 2). This data reveals that a significant percentage of patients are unaware of this quick and easy step to help ensure they are getting the best care and the most accurate mammogram reading.



Figure 1. Awareness of Skin Markers



Figure 2. Understanding of Purpose of Skin Markers

Use of Skin Markers and Mammographer's Explanations

The survey also provided insight into the communication technologists provide about the use of skin markers. Although in most cases the technologist explained why the skin marker was being used and it made sense to the patient (61%), there was some variation depending on which type of marker was used (see Figure 3). In particular, almost one third of respondents who had a nipple marker said the technologist did not explain why it was being used. The greatest level of confusion despite receiving an explanation from the technologist was associated with mole markers. Based on this survey data, there is an opportunity to improve patient communications so there is a better understanding of why a marker was used and that an extra step was taken to improve their mammogram.

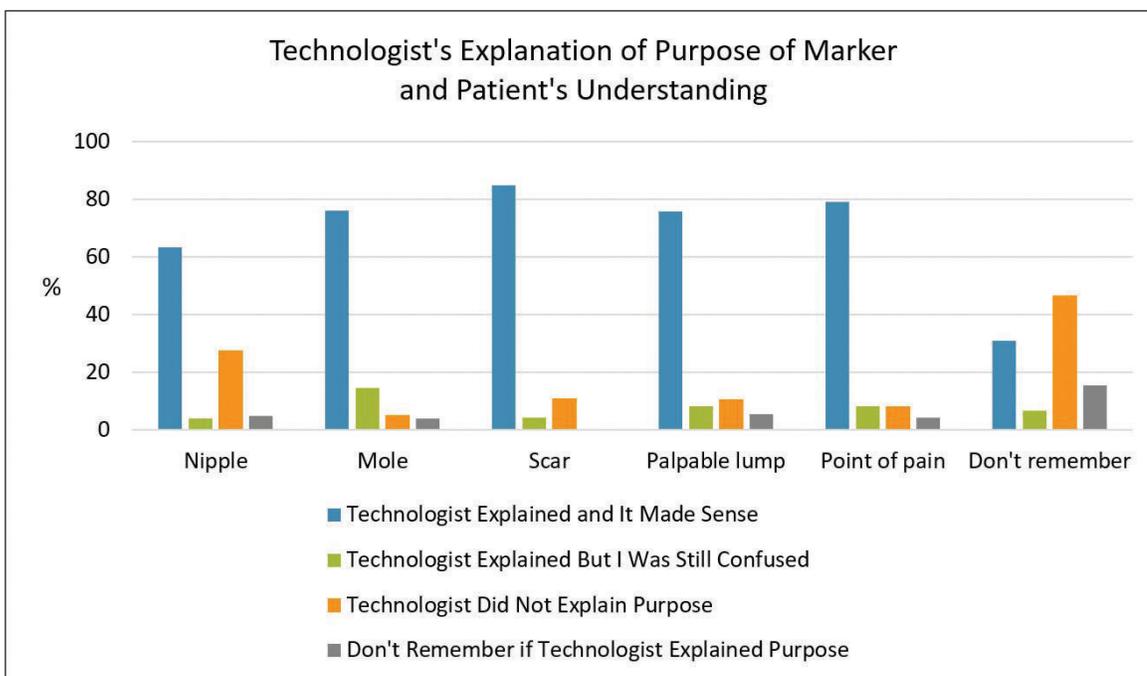


Figure 3. Communication and Understanding

How Use of Skin Markers Influences Patient Perceptions

Notably, the survey revealed that when skin markers are used, it positively influences patients' perceptions about their imaging center (see Figure 4). This indicates that patients appreciate the extra step that was taken to ensure they are getting the best care possible.

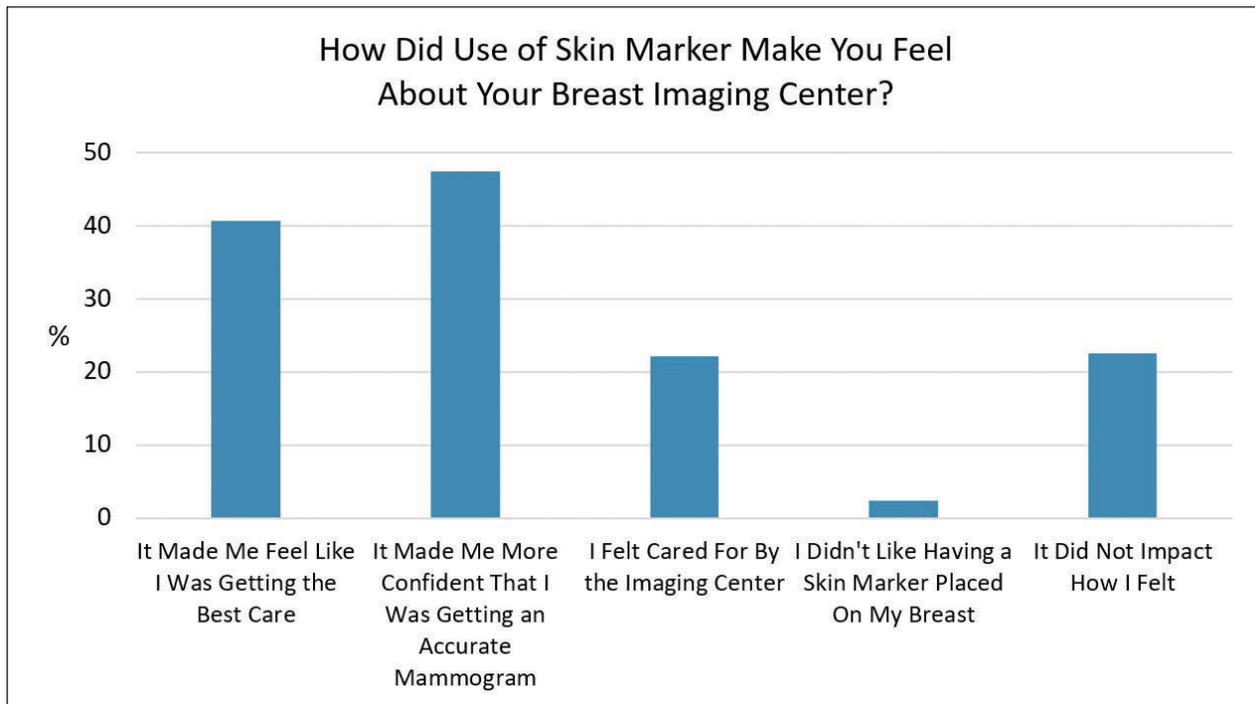


Figure 4. Patient Perception

Another notable finding from the survey is that of those patients who had a skin marker placed (253 respondents), the vast majority (79%) felt it was either Absolutely Essential or Very Important (see Figure 5).

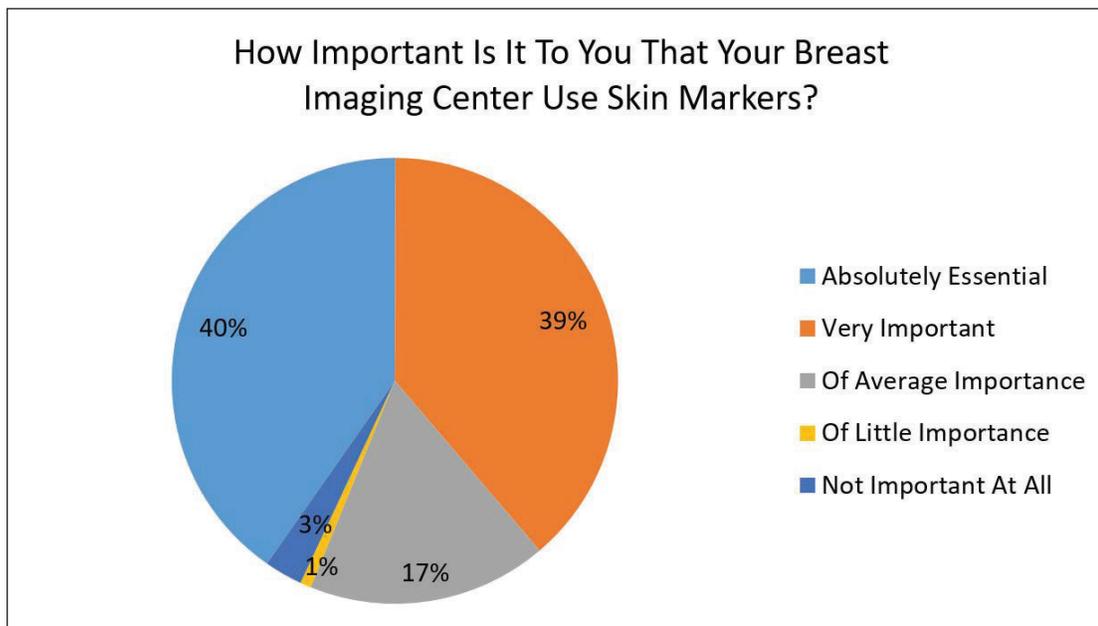


Figure 5. Importance of Skin Markers to Patients

Suggestions for Breast Imaging Centers

When a patient has a pleasant experience during their mammogram, it can encourage future mammograms and compliance with any follow-up care that may be required. Good communication with the patient can give the technologist an opportunity to educate the patient, alleviate fear or anxiety, and clarify misconceptions. All this can help the patient relax, which in turn allows easier positioning.²

The survey results presented herein indicate that, especially when they understand their purpose, patients appreciate and value the use of skin markers during their mammogram. The results also uncovered an opportunity for better and more thorough explanation of the purpose and importance of skin markers, particularly when mole or nipple markers are used. This improved education can give patients more confidence in their mammography results and lead to better patient satisfaction.

Furthermore, the technologist is often the only link between the patient and the radiologist. The information that he/she does or does not convey can aid in diagnosis and the action, or lack thereof, that is taken after the radiologist completes the interpretation.³ Skin markers are a key part of conveying that information.

It is recommended that all mammography facilities develop a standard marking system protocol using skin markers.⁴ Moreover, a skin marking system that consists of unique and distinctive shapes can provide added certainty for the radiologist. The Beekley Skin Marking System[®] has five different shapes that uniquely identify the area of interest on the breast: a circle for a raised area on the skin such as a mole, a line for a previous surgery, a triangle for a palpable mass, a solid pellet for the nipple, and a square for non-palpable areas of concern or pain (see Figure 6).

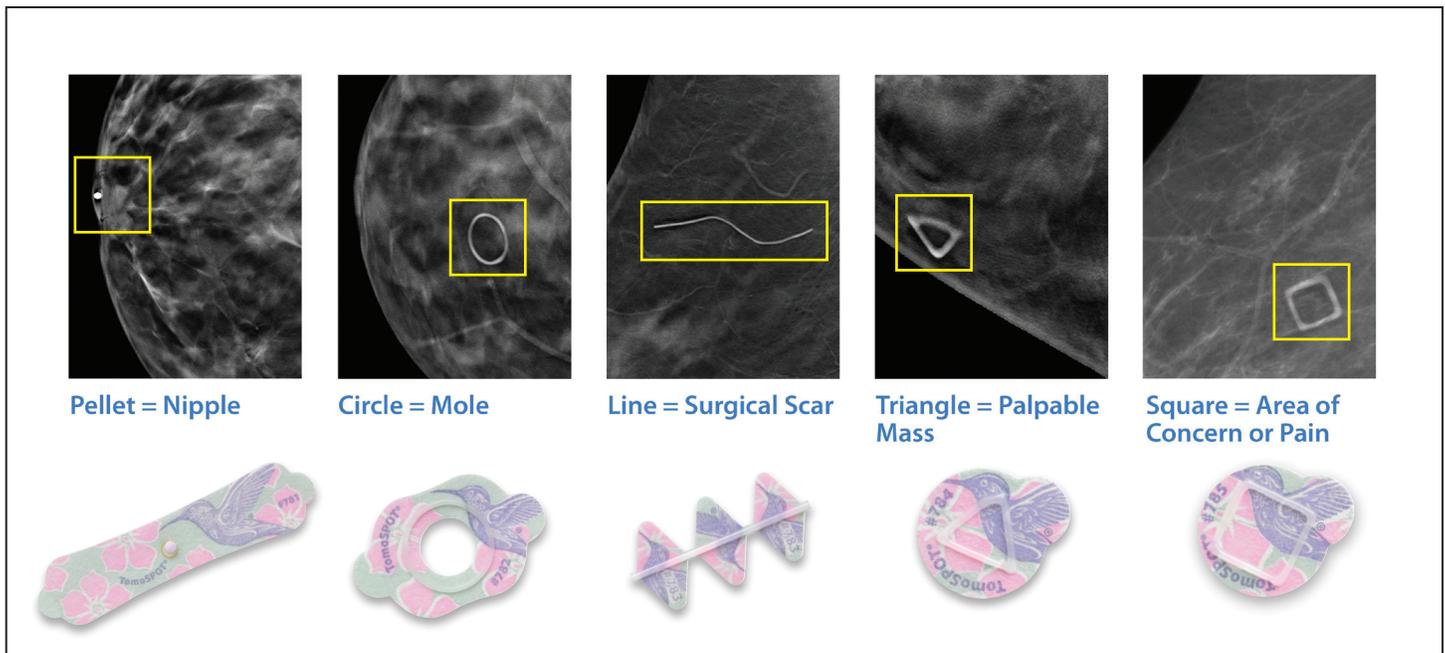


Figure 6. Skin Marking System for Mammography⁵
Featured skin markers: TomoSPOT[®] Skin Markers for Digital Breast Tomosynthesis

References:

1. Blind, random, anonymous online survey conducted March 29, 2021 via Survey Monkey[®]. Incomplete and invalid responses excluded from results.
2. Importance of Visual Checks Before Mammograms, Olive Peart, Imaging Technology News (ITN), May 31, 2019, retrieved from <https://www.itnonline.com/article/importance-visual-checks-mammograms>.
3. Ibid.
4. Ibid.
5. Ibid.

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