

Mammography Report

SOLIS MAMMOGRAPHY
2019 ANNUAL REPORT

Annual screenings beginning at **40** **40** result in a nearly **40% mortality reduction**, compared to 23% for biennial screening.

The State of Mammography

The Definitive Pillars of Early Detection and Improved Patient Experience

In healthcare, quality and improvement begin and end with defined protocols and accepted best practices that lead to improved patient outcomes.

However, in the field of mammography screening, both patients and clinicians are currently faced with a diverse range of technologies, practices and perspectives. Since 1986, Solis Mammography has been dedicated to furthering the efficacy of mammography, and to addressing the confusion around screening recommendations and the benefits of screening. Just recently, for example, the American College of Physicians (ACP), reversed its guidance position from annual screenings at the age of 40 to biennial screenings starting at 50. An immediate dissenting position from the American College of Radiology (ACR) and the Society of Breast Imaging (SBI) stated that this new guidance may result in up to 10,000 additional, unnecessary breast cancer deaths in the United States annually. This recommendation would also

result in thousands more women enduring extensive treatment for advanced cancers.

Through clinical expertise, a dedicated focus on breast health, and after performing more than five million procedures, Solis Mammography has found that there are four practices that are the definitive pillars for achieving optimal results in breast health. These pillars are:

greater quality of life as treatment is less invasive and less costly.”

3D Mammography

More than 140 published clinical studies uphold digital breast tomosynthesis (3D mammography) as the most accurate screening available. It has been clinically shown to increase early detection of breast cancer by 54% while decreasing callbacks by 37%.²

SmartCurve™ Comfort Technology

Pain is the #1 complaint that women have about mammograms. It is also a key barrier to patient compliance. In fact, 49% of women

who have never had a mammogram cite fear of pain as the reason.³ However, 93% of women who had experienced pain with traditional compression systems reported that SmartCurve technology increased comfort during screening.⁴ By removing pain and discomfort, major barriers to compliance are eliminated.

Focused Expertise

The interpretation of screening results is most accurate when performed by

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“There is no other screening test in medicine that has as much scientific evidence to support the benefits. There is no gray area. **Mammograms save lives.**”
- Dr. Julianne Greenberg
Director of Breast Imaging, Washington Radiology

Annual Screenings Beginning at 40

The clinical data is clear: Annual screening beginning at the age of 40 results in a nearly 40% mortality reduction, compared to 23% for biennial screening.¹ “Today’s high-quality screenings benefit 40-year old women the most,” said Dr. Stephen Rose, Solis Mammography’s Director of Clinical Research. “Major studies have shown time and again that in addition to saving lives, early detection offers

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Our Foundation of Care

Achieving clinical excellence through a *comprehensive approach* to breast health

When Solis Mammography was founded more than three decades ago, we embarked on a mission to set the standard for clinical and technological excellence in our field. Over the course of that journey, two technologies have become the cornerstone of our approach to furthering the cause of accuracy and a better patient experience: 3D mammography and SmartCurve™ comfort technology. When combined, these two cutting-edge technologies have been clinically shown to increase the early detection of breast cancer, while improving the patient experience.

3D Mammography

The Evidence is Conclusive

It took more than thirty years for digital mammography to displace film. In only a matter of years, 3D has become the new standard in mammography.

Solis Mammography has been a leading proponent of 3D mammography and has produced definitive peer-reviewed research proving its superior screening status. To draw a comparison to 2D, this leading-edge technology gives the radiologist the equivalent of more than 60 images of breast tissue in “slices” in much the same manner as an MRI.

Dr. Stephen Rose, Solis Mammography’s Director of Clinical Research, co-authored a landmark study published in JAMA in 2014 that reviewed more than 450,000 cases at 13 different institutions. The result: 3D mammography, used in conjunction with 2D, dramatically outperformed screenings that relied on 2D alone. The use of 3D imaging resulted in:

- 54% increase in breast cancer detection
- 37% reduction in callbacks

In 2016, Dr. Rose continued his 3D research by focusing on

the impact of tomosynthesis on screening patients between the ages of 40 and 49, an important age group, as cancer found in younger women tends to be more aggressive. He discovered significant improvements in invasive cancer detection and recall rates. Through four additional published research studies, Dr. Rose’s findings and observations confirmed the benefits of 3D mammography

54%

Increase in early detection with 3D

in the clinical environment.

“With more than 25 years dedicated to breast imaging, I see patients every day who are benefiting from greater accuracy in their screening diagnosis — even if they themselves do not recognize the difference in the technology,” said Dr. Rose. “3D mammography is undoubtedly the most significant breakthrough in detecting breast cancer in my lifetime.”

SmartCurve:

Is Patient Experience the Final Frontier of Care?

Over the past 40 years, the field of mammography has made remarkable strides. Our ability to detect potential problems and early stage cancers has grown tremendously. In fact, one could make the argument that the greatest improvement in our ability to decrease mortality lies not in the technology itself, but in driving patient engagement, compliance and satisfaction to higher levels. To do this requires creating a better patient experience — and eliminating the obstacles to routine screenings.

One of the most frequently voiced barriers to compliance is the fear of pain and discomfort. SmartCurve was designed specifically to address this issue, with its signature curved paddle that distributes pressure more evenly over the breast, lessening the force of compression while maximizing comfort.

The ergonomics of comfort.

The development of the curved paddle evolved from the effectiveness of 3D. There was a persistent struggle to screen areas of the breast that are thinner, which results in

93%

of patients who experienced discomfort with standard compression reported improved comfort with SmartCurve™

over-compression. Dr. Rose collaborated with Hologic, a medical technology innovator, and devised the curved surface to aid in compression effectiveness and to simultaneously improve comfort.

Many women feel pain during standard flat paddle mammograms because of the required pressure against the chest wall. Constructed of a softer plastic and molded to fit the curve of a woman’s breast, SmartCurve reduces discomfort during compression. Improved comfort is obtained without an increase in radiation exposure and without compromising imaging quality.

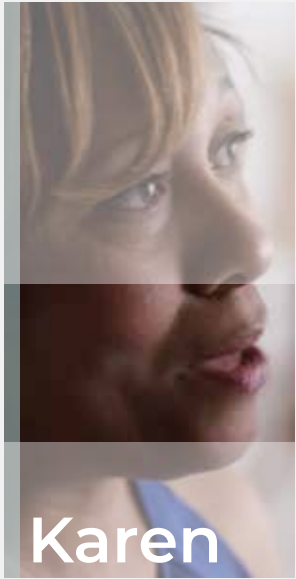
Synergy:

Two Technologies Are Better Than One

Independently, both 3D mammography and SmartCurve represent substantial improvements. But when integrated into a single screening platform, they represent the unification of the gold standard in accuracy with a clinically proven solution for greater comfort. The end result? A better, more accurate mammogram and an improved experience for the patient.

The VOICE of the Patient

Real Women. Real Stories.



Karen

I think of myself as an advocate for my community of sisters and friends. When I get my mammogram, every single contact in my cell phone receives a message from me. It says, "I just had my mammogram. Isn't it time for yours?"

The better compression they get, the better the exam is. Every time I get a mammogram, I think squeeze harder, compress more. **I want the best possible image. I know some women want it to be over with as soon as possible - I want it to be as accurate as possible.**



Shelley

I have a dear girlfriend who is responsible for me being here today. One day at lunchtime, she nudged me to do a self-exam and that night I did it. I found out the next week I had breast cancer. It's my mission in life now to share that same word of early detection with all my other friends. **I'm constantly preaching the gospel of early detection, because it's the closest thing we have to a cure."**

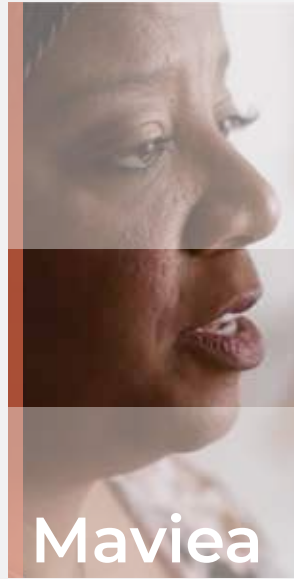
Seeing the evolution of mammography over the years through Solis and looking at what they are doing to really look at women's anatomy and make it the best experience they possibly can - I've got a lot of respect for that.



Anne

I think it's really important for women to understand that there is a medical reason for getting a screening every single year. Because if something is found you want to find it at the earliest possible stage.

I've always had very painful mammograms. **But when I had a SmartCurve mammogram, it was pretty revolutionary in terms of the difference in feeling.** I did not have any discomfort. I still had the same kind of compression and pressure, but it was a totally different kind of experience. I kept waiting for the pain - and then the mammogram was over.



Maviea

It's amazing it took so long for someone to design a mammogram that actually acknowledges the fact that women's breasts are curved.

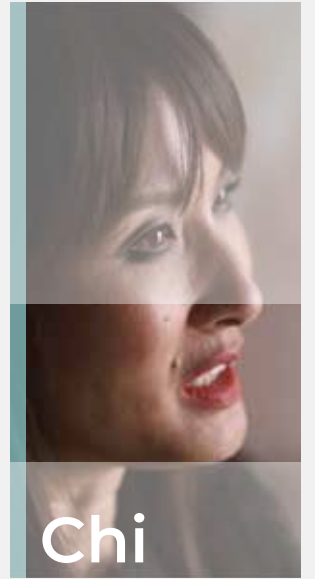
I volunteered to be one of the first participants to experience SmartCurve. It is definitely a more comfortable fit. Traditionally we have the flat plate, you have to lean in a little bit further for the compression, where as SmartCurve embraces the shape of the breast. It's just a more comfortable feeling.



Robyn

The first thing that comes to mind when I think about getting a mammogram is trauma, pain, discomfort. **I would like to reframe that for myself and think about a mammogram as love and kindness and self-care and wellness. SmartCurve has helped me do that.**

The best advice I could give a woman who puts off having a mammogram is you have to know your breasts. You simply have to. You have to become familiar with them so you know what's normal for you. Having a mammogram is a discovery process - forget what you've heard and experience it for yourself.



Chi

Self-care starts with open communication. First and foremost. And, that's not just with your friends or your family or your children - it means open communication with yourself. What do you need to be healthy? What are your responsibilities as a woman, as a mother, as a professional? What choices do you need to make? **You have to take care of yourself before you can take care of anyone else. That can mean going to yoga class - or scheduling your mammogram.**

With Solis Mammography's EveryWoman documentary series, we've opened the door to healthy conversations about breast health - and more.

When Solis Mammography debuted its EveryWoman documentary series in the fall of 2018, it coincided with the national launch of SmartCurve across all centers. Its purpose was to involve real women - not actors - in unscripted conversations about breast health, mammograms, self-care and body awareness. These discovery videos revealed so much more, providing insight into a range of topics, from womanhood and

motherhood, to professional expectations, self-care tips, empowerment and health, including the importance of early detection and personal experiences with breast cancer.

With each passing year, Solis will continue to involve more women in this ongoing conversation, by providing a platform for real voices to empower, inspire, educate and inform the 21st century woman.



The #EveryWoman Conversation.

Empowering. Inspiring. Educating. Informing.

Join in.



Besides SmartCurve, what other upcoming technologies are being developed to improve patient comfort?

“Our next focus on comfort revolves around pre-operative localization and surgical excision. Currently, most women who undergo lumpectomies must synchronize their calendar to include wire localization, breast center hours, hospital operative availability and the breast surgeon’s schedule. Many times, this coordination results in less than optimal hours and/or inconvenient points of service. At Solis Mammography, we are making a concerted effort to implement a “wire-free” environment that will allow the uncoupling of the localization from the operative procedure. This allows the patient to regain control of her schedule during a time where flexibility and comfort are at a premium.” **Dr. Alexander Sardiña**

Thought Leaders On the Record

Clinical Perspectives



If there was one thing you could say to women about breast health, what would it be?

“Don’t be afraid. There is a strong history of breast cancer in my family, so I know where fear comes from. There are so many women I talk to who are afraid to get a mammogram, but I tell them it’s always better to know. I think an important part of my role is to provide comfort in addition to information. As breast specialists, we are here to consult and assist. To be a patient’s guide wherever her journey takes her.”

Dr. Thalia Forte

Are there racial disparities in breast healthcare you would like to call attention to?

“I am first-generation Colombian. There are cultural considerations and different risk factors to be aware of. Women of color tend to be screened less frequently and have advanced breast cancer when diagnosed. This is an on-going conversation we need to have within our communities and our practices.” **Dr. Andrea Parada**

What do you want women with dense breast tissue to know?

“Dense breasts are common, in fact, about 40% of women over the age of 40 who get mammograms have dense breast tissue.⁶ I would also want women to know that if you have dense breasts you have a higher chance of developing breast cancer. And, that because dense breasts can make it harder to detect cancers, annual screening with 3D mammography is critically important. 3D mammography is FDA-approved as a superior screening technology for women with dense breasts. Additionally, breast ultrasound may be ordered as a supplemental screening tool. Women with dense breasts should work closely with their physician and a breast-specialized radiologist on what is appropriate for their long-term breast health.” **Dr. Stephen Rose**

What about men?

“Men have breasts, too, but there is an information gap. Many men are not even aware they can get breast cancer. Just like women, physicians should assess if a man is at risk — and share the knowledge.” **Dr. Julianne Greenberg**

What does a typical day in the life of a breast-specialized radiologist look like?

“I see 25 patients a day and spend a good deal of my time consulting with primary care providers, as well as with pathologists, breast surgeons and other specialists involved with a patient’s care pathway. People tend to think that radiologists spend their days in dark rooms reading images. At Solis Mammography, breast radiologists see all diagnostic patients.” **Dr. Thalia Forte**

When should the conversation about breast health begin?

“The medical community needs to start the conversation about breast health education much earlier. We’re waiting too long. Starting at age 30, women should know what breast health means to them and why early detection is so important. I talk to young women all the time and they have no idea what this means.” **Dr. Andrea Parada**

At what age should a woman stop getting a mammogram?

“It’s not an age-related consideration, it’s health related. Women should continue to receive annual screening mammography while in good health and without life-limiting comorbidities. Which can mean into her 70s or later.”

Dr. Stephen Rose

How do you talk about early detection with patients?

“We have the technology to reframe the early detection conversation with patients and give them a sense of hope, confidence and empowerment. We’re really good at detecting small, early cancers. If it’s a screening-detected cancer, that puts the patient in a very good category, and we tailor the discussion in a positive way. But the truth is, well over 90% of the patients we see will have a good screening result.” **Dr. Julianne Greenberg**

Meet Our Clinical Experts



ALEXANDER J. SARDIÑA, MD
Chief Medical Officer

Dr. Alexander Sardiña leads a team of more than 100 breast-specialized radiologists across the nation, driving accountability and excellence in our clinical and business practices. With his focus on advanced training and strict quality improvement measurements, Solis Mammography continues to deliver the highest levels of accuracy in the industry.



STEPHEN L. ROSE, MD
Director of Clinical Research

Outside of academic centers, Dr. Stephen Rose is one of the best-known clinical researchers in the field of mammography, having published six research studies on digital breast tomosynthesis (3D mammography). A board-certified breast radiologist, he has dedicated his practice to the diagnosis of early breast cancer for more than two decades.



JULIANNE GREENBERG, MD, FRCR
Director of Breast Imaging,
Washington Radiology

As the Director of Breast Imaging for Solis’s multi-modality medical imaging affiliate in the DC area, Dr. Julianne Greenberg’s extensive expertise in women’s imaging has guided Washington Radiology’s breast health practice for nearly 20 years. Dr. Greenberg has published numerous research studies and performs editorial review for the American Journal of Roentgenology.



THALIA FORTE, MD
Diagnostic Radiologist & Breast
Imaging Specialist

Dr. Thalia Forte was Solis Mammography’s Physician of the Year in 2017, nominated by her peers for her compassionate dedication to patient care. As an advocate for women throughout their breast health journey, Dr. Forte believes she plays an integral role in providing breast health knowledge and information to the patients she serves.



ANDREA PARADA, MD
Medical Director, Solis Mammography
At Rose Medical Center

A board-certified breast radiologist, Dr. Andrea Parada interprets all breast imaging modalities, and performs all types of image-guided procedures. She believes that breast health should be personalized and tailored to the individual and that it goes beyond mammography. “Today, breast radiologists must have a multi-disciplinary focus. Our patients require it.”

Clinical Innovation: Where do we go from here?



Alexander Sardiña, MD
Chief Medical Officer

As much as the field of mammography has changed over the last decade, there is one condition that remains constant: Confusion. Among the many voices in the industry, there is little consistency around the recommended protocols for mammography screening. From something as fundamental as the age to initiate screening to its recommended frequency, patients and physicians alike continue to be met with contradictory advice.

Despite the latest advancements in imaging technology and cancer treatment, over 45,000 women succumb annually to breast cancer. What is sorely needed in this paradigm is clarity. As we reported in our cover story, the American College of Physicians recently reversed its 2015 stance endorsing annual screenings beginning at age 40, to align its recommendations with the controversial United States Preventive Services Task Force (USPSTF) which promotes screening mammograms every two years beginning at 50. Forthcoming are a few facts that should be highlighted with regards to the USPSTF and the science upon which it based its recommendations:

- The task force is essentially comprised of primary care physicians and epidemiologists. There is not a single breast-focused physician on staff, not a breast radiologist, breast surgeon, or medical oncologist
- The recommendations are based on scientifically flawed studies performed on outdated equipment outside of the US in the late 1980s and 1990s
- More recent studies have confirmed the significant difference in number of lives saved by annual versus biennial screening; a 40% mortality reduction in the annual vs. 23% reduction in the biennial patient subgroups
- One out of every six breast cancers is diagnosed in women between the ages of 40 and 49

What message is the USPSTF conveying to our younger patient population? The confusion created by this outdated, non-clinically viable data has attempted, and perhaps partially succeeded, in overshadowing the significant progress the field of mammography has made over the last decades; from the advent of digital mammography to the improved accuracy of tomosynthesis (3D) to the game changing comfort of SmartCurve.

Confusion also breeds non-compliance; non-compliance equates to delayed diagnosis, which in turn results in higher treatment costs and decreased life expectancy. At Solis Mammography, we have standardized our care model around annual screenings beginning at age 40. We are anchored to the belief that breast cancer is not preventable, but it is curable if detected early. We are actively engaged in research, education and outreach as we work to perfect the practice of early detection. Our patient-centric emphasis has encouraged us to embark on ground-breaking research collaboratives within the emerging fields of genomic and tumor marker testing. We are hopeful this endeavor will yield a time where screening mammography is no longer needed.

Alex Sardiña MD

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As the nation's largest independent mammography provider, Solis Mammography serves as a real-world data hub for our own proprietary clinical research, as well as a collaborator and vital partner for technology innovators. In the years ahead, we'll continue to take the lead in exploring the possibilities posed by new technologies and furthering the adoption of those solutions that provide positive, clinically-proven results. Among the innovations currently taking shape within our research framework and in the larger world of mammography:

Contrast-Enhanced Mammography (CEM)

CEM combines an iodinated IV contrast agent with digital mammography for advanced imaging beyond a normal mammogram to improve breast cancer detection. It is becoming a powerful screening tool in the high-risk patient population, as well as a complementary tool in the diagnostic setting. Of benefit to breast surgeons for staging and presurgical planning, CEM is a streamlined alternative to MRI with faster results at a lower price point. "It also offers an improved experience for the patient," said Dr. Rose. "One that is better tolerated, less anxiety producing and that offers immediate results."

Solis Mammography has been actively involved in the research, testing and implementation of CEM over the last two years. Its piloted roll out at designated centers is targeted for later this year.

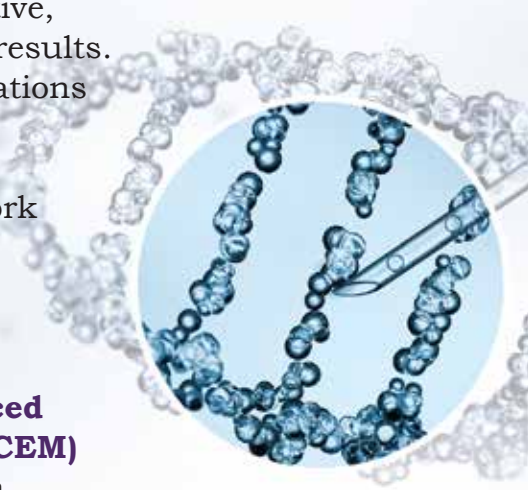
Genetic Testing and High-Risk Screening

In the 1990s, genetic testing added a new dimension to mammography screening. By identifying BRCA 1 and BRCA 2 mutations, women who were at high risk of developing breast cancer could be identified. However, this first generation of genetic testing missed nearly half of the patients subsequently diagnosed with breast cancer.

We're now on the cusp of a new era of genetic testing and high-risk screening. In the last two decades, more than a dozen other gene mutations related to breast cancer have been identified. In addition, the

advances in genetic research and technology are also driving down the costs of genetic screening; today, a broader panel of tests can be conducted for about one-tenth the cost of the genetic screenings in the 1990s.⁵

Solis Mammography, in concert with Sarah Cannon, the Cancer Institute of HCA Healthcare, is developing a high-risk women's screening program that will help determine a patient's life-time risk of breast cancer with prescribed recommendations for care. "It's both predictive and personalized," said Dr. Alexander Sardiña, Solis Mammography's Chief Medical Officer. "It allows a patient to understand her genetic predisposition and how it may or may not impact her risk profile. It's individualized care."



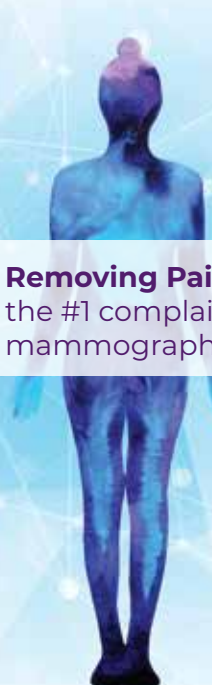
The State of Mammography

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sub-specialized breast radiologists who read a high volume of both screening and diagnostic mammograms, who utilize "batch reading" to interpret mammograms without interruption, and who are audited regularly on their screening and interpretation

#1 Removing Pain removes the #1 complaint about mammography

skills through peer review. Quality and improvement begin with consistency. By embracing clarity around screening protocols and a consistent set of best practices, we not only communicate more effectively with patients, but we also move toward improved performance in the early detection of breast cancer.



Why Solis Mammography?

We help women achieve and maintain optimal breast health and peace of mind through direct access to a better mammogram, as well as through strong collaborative relationships with primary care providers, specialists and the greater healthcare community.

Exceptional Standards

Through our dedicated, focused expertise in breast health and diagnostic services, we are able to deliver a better mammogram to the generations of women we serve. We are specialists, not generalists.

- Sub-specialized breast radiologists: 100% focused on breast screening and diagnostic care
- Expert technologists: Highly trained in the Solis Mammography way
- State of the art technology: The latest innovations in accuracy and comfort
- Continuous improvement: The Voice of the patient will always be our guide

Physician Advantage

Our dedication to excellence means we follow the highest standards of care in the delivery of advanced breast health services.

- A team of sub-specialized breast radiologists, which leads to a better mammogram interpretation and higher cancer detection rates far exceeding national standards
- Maintenance of strict Quality Improvement measurements through peer review, shared teaching and casework files, participation in multidisciplinary conferences, and through instant feedback through cross-market radiology chat channels
- Active participation in breast imaging and accreditation programs, including BICOE (Breast Imaging Centers of Excellence) and NAPBC (National Accreditation Program for Breast Centers)



100%
Breast-Specialized Radiologists

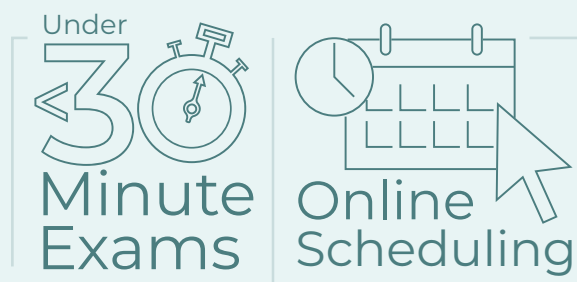
More than

5 Million
Procedures Performed



Exceptional Experience

Solis Mammography is the Home of the Peace of Mind Mammogram™ which ensures an experience that is personal, caring and compassionate. From scheduling, to the exam, to the delivery of results, we live this promise every day with:



Warm & Welcoming Centers



Screening results delivered within **24-48** hours



Physician Advantage

When your patient is in our care, our highly responsive process creates a cycle of engagement that quickly delivers peace of mind to non-symptomatic screening patients, while keeping you advised on the status of symptomatic patients.

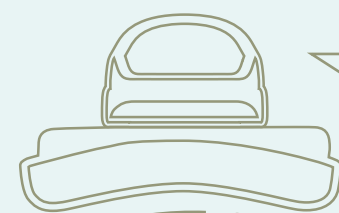
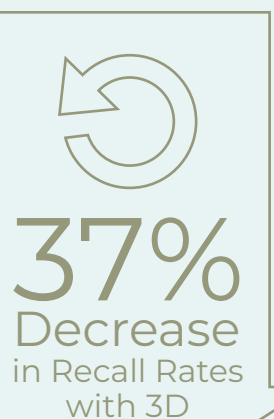
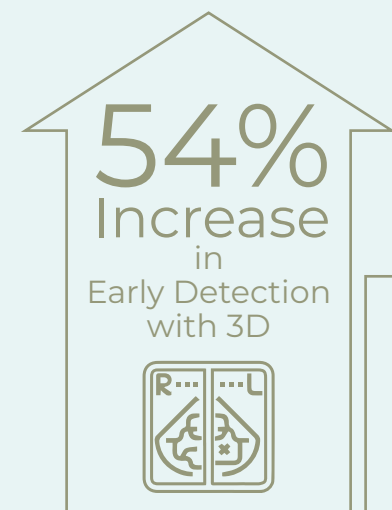
- Consultative relationship with Solis Mammography's expert radiologists
- Special handling of diagnostic patients reduces wait time and increases speed to resolution for physicians, while reducing fear and anxiety in patients
 - Symptomatic patients receive same or next day expedited scheduling
 - Images are read while the patient waits, followed by a consultation with the radiologist
 - Results are delivered to the physician's office the same day
 - The patient moves from screening to diagnostic resolution within 5 to 7 days
- Seamless transition to post-diagnostic care under physician control

Exceptional Results

Our knowledge of innovative practices and technologies has made us one of the nation's leading authorities on breast health. Our continuous advances in screening mammography provides better access to more accurate data. Early detection through an annual screening program is the closest thing we have to a cure for breast cancer. This remains Solis Mammography's fundamental promise to patients.

Physician Advantage

Our advances in the clinical science of mammography have made us a leading authority in digital breast tomosynthesis (3D mammography). And, now integrated with SmartCurve comfort technology, the accuracy of 3D has been extended to an even greater number of women through an improved comfort experience.



93% of women report Improved Comfort with SmartCurve⁴

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