Breast AI provides innovative solutions for breast cancer detection, measure breast density and assess personalized risk that offer clinically proven benefits to clinicians and patients, and are designed to optimize efficiency, enhance the patient experience, and improve outcomes.
Benefits

Increase Efficiency And Decrease Reporting Time

Breast AI analyzes each individual image or slice and identifies potentially malignant lesions in digital breast tomosynthesis exams — providing radiologists with superior clinical performance and crucial information, such as lesion Certainty of Finding and Case Scores, which assists in prioritizing caseload, clinical decision-making and reducing reading time by up to 52.7%\textsuperscript{1,3}.

Consistent Results

Breast AI automatically assesses breast density of 2D or 3D mammograms with the appropriate BI-RADS® density category and provides physicians with simplified and standardized breast density reporting and stratification, with accurate and reliable results.\textsuperscript{1}

Superior Accuracy

Breast AI is a clinical decision support tool that provides a short-term, breast cancer risk estimation based on 2D or 3D mammograms with the highest AUC available, 0.80 (95% CI: 0.76, 0.83) offering greater accuracy compared to traditional risk assessment models\textsuperscript{1,4,5}.

Optimized Workflow

Breast AI does not require on-premises hardware and results are accessible through a single user-interface and an internet connection. It seamlessly integrates with existing PACS, EHR, worklist, notification, and dictation systems ensuring exams are read accordingly and consistently.
Features

Breast Cancer Detection

Breast AI uses deep learning technology that is intended to be used concurrently by radiologists while reading digital breast tomosynthesis (DBT) exams. The algorithm detects soft tissue densities (masses, architectural distortions, and asymmetries) and calcifications in 3D DBT slices. The suspicious areas that are detected and highlighted and the unique certainty of finding and case scores assist radiologists in identifying and assessing soft tissue densities and calcifications that may be confirmed or dismissed by the radiologist.
Breast Density Assessment

Breast AI removes the challenges of subjectivity in breast density reporting. Using full-field digital mammography (FFDM) or synthetic 2D images, it analyzes the dispersion and texture of breast tissue, delivering clinicians a consistent, accurate, and reliable patient-specific breast density assessment.
Personalized Breast Cancer Screening

Breast AI offers an equitable and inclusive approach to precision screening. It factors in clinically relevant global screening guidelines and more than 15 country incidence and mortality reference tables, for alignment with that country’s general population. Breast AI incorporates multiple risk factors found in a screening mammogram:

- Age
- Breast Density
- Subtle Mammographic Features

This solution offers the highest AUC available 0.80 (95% CI: 0.76, 0.83) for providing a one-year future risk estimation based only on a screening mammogram. This advanced solution provides superior insights, that empower clinicians to tailor breast screening regimens and potentially identify cancers earlier, when they may be more easily treated.

Customizable Reporting

Incorporate results directly into existing PACS, EHR, worklist, notification, and dictation systems ensuring exams are read more consistently and users have less clicks. Customizable output options of relevant clinical information. Image workflow and information workflow selectable outputs supported.
## The Arterys Platform Benefits

<table>
<thead>
<tr>
<th>Cloud-based Supercomputing</th>
<th>Zero Footprint Diagnostic Web Viewer</th>
<th>AI Augmentation, Interaction</th>
<th>Clinical Workflow Integration</th>
<th>Secure and Resilient</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Blazing fast processing of imaging data with Multi GPU based rendering</td>
<td>✓ Access images and tools anywhere</td>
<td>✓ More consistent, accurate diagnostics</td>
<td>✓ Speed diagnosis with automated reporting</td>
<td>✓ GDPR, HIPAA, SOC2 ISO 27001, Information Security Certified</td>
</tr>
<tr>
<td>✓ No heavy IT infrastructure required on-prem!</td>
<td>✓ All you need is internet</td>
<td>✓ Eliminates tedious and error-prone manual tasks</td>
<td>✓ Improve physician collaboration across geography</td>
<td>✓ World class security comes standard, with ISO-27001, SOC-2 and HIPAA requirements for data security.</td>
</tr>
<tr>
<td>✓ Elastic scalability means you never have to worry about performance</td>
<td>✓ Easily share cases and workspaces</td>
<td>✓ CE marked &amp; FDA cleared algorithms</td>
<td>✓ Inject results and image/video into your reports.</td>
<td>✓ Constant monitoring of adverse events maximize uptime, impact.</td>
</tr>
<tr>
<td>✓ Low maintenance, always up-to-date, no-cost automatic continual updates</td>
<td>✓ FDA and CE Cleared</td>
<td>✓ Data-driven decisions</td>
<td>✓ Study in-context URL launching with single sign-on means Arterys automatically moves with your workflow</td>
<td>✓ Real-time interactive support is also available through in-app chat feature</td>
</tr>
<tr>
<td>✓ Access images and tools anywhere</td>
<td>✓ Fully interactive real-time visualization of DICOM images</td>
<td>✓ Vendor neutral AI, easily integrate any algorithm into clinical workflow</td>
<td></td>
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</tr>
<tr>
<td>✓ Access images and tools anywhere</td>
<td>✓ Web-based zero footprint viewer with full-screen mode</td>
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<tr>
<td>✓ All you need is internet</td>
<td>✓ Mac, PC, tablet and phone</td>
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</table>

## System Requirements

Arterys is completely hosted in the cloud using Amazon Web Services (AWS) servers in several regions accessible globally through a Microsoft Edge or Google Chrome web browser by navigating to https://app.arterys.com

### Internet Speed
3 Mbps up/down Internet connection with a maximum of 100 ms latency.

### Website Access
WebGL is enabled on the device used to access the Arterys website. WebSocket is not blocked.

**Consistent experience across Mac, PC and mobile devices.**

Zero foot-print viewer no software installation required.

### Browser
Google Chrome Web Browser version 82 or above.

**Microsoft Edge Web Browser version 80 or above.**

### Edge Service
Custom software installed on a server within the hospital network or in the cloud to automate the sending of DICOM objects from the scanner to the cloud and to PACS while ensuring that the patient’s protected health information (PHI) remains within the hospital network (refer to Edge Data Sheet).
The Arterys Platform with Premium Applications

- **CARDIO AI MR**
- **LUNG AI**
- **CHEST | MSK AI XR**
- **NEURO AI**
- **BREAST AI**

AI powered by iCADx®