

Siemens Healthineers uses artificial intelligence to take X-ray radiography to a new level

- **New X-ray system Ysio X.pree supports image acquisition using AI**
- **New AI-Rad Companion Chest X-ray software offers decision support for radiographic thorax images with AI**

Siemens Healthineers introduces Ysio X.pree¹, the world's first intelligent X-ray system with integrated AI for optimizing the daily routine of image acquisition in radiography. To assist radiologists with the subsequent image post-processing, Siemens Healthineers also offers its new CE-labeled AI-Rad Companion Chest X-ray, an AI-supported software that aids clinical decision making on upright thorax images. "X-rays are still the most commonly used form² of diagnostic imaging. By introducing AI technologies and other innovations into this area, we're taking traditional radiography to a new level," says Carsten Bertram, Head of X-ray Products at Siemens Healthineers.

Ysio X.pree

The Red Dot Design Award winning Ysio X.pree helps prepare for X-ray image acquisition using AI. Based on the images from a 3D camera, the AI-based algorithm automatically detects the thorax and thus sets the optimal acquisition area for this – the so-called collimation. The radiation is focused only on the relevant area, and the goal is to acquire an image containing all the necessary information with the lowest possible radiation exposure. The user can make adjustments to the collimation area at any time on a live touch-screen image of the patient. AI functionality and other intelligent tools for image acquisition preparation are combined in the so-called myExam Companion. For full-spine and long-leg exposures, with the support of the live image of the 3D camera, the user can easily reduce the number of images needed and therefore reduce the dose.

These new functionalities allow the user to utilize the device optimally every time and to concentrate more on the patient. Dr. Matthias May, Chief Physician of Radiology, University Clinic Erlangen, who is currently working with the device, says: "Thanks to the intuitively designed user interface of the Ysio X.pree, it was possible from day one to cover a wide range of examinations with high-quality results, even without intensive training. With the programmable robotics, the individual flavor settings for the image impression, the support of myExam Companion and the AI supported 3D camera, a wide array of technical solutions for the personalization of examination procedures is available."

AI-Rad Companion Chest X-ray³

DICOM X-rays images from devices such as Ysio X.pree are a very good basis for Siemens Healthineers' new AI clinical decision support software: AI-Rad Companion Chest X-ray. The newest member of the AI-Rad Companion product family complements the solutions already available for CT and MRI. Using artificial intelligence, it examines Chest X-rays for abnormalities. The software acts as a kind of "concurrent reader" for example, highlighting nodules in the lungs or indicates the presence of a pneumothorax with confidence scores. AI-Rad Companion Chest X-ray is vendor agnostic and conforms with the DICOM standards. The entire AI-Rad Companion product family benefits from the teamplay digital health platform. Its secure cloud environment provides high computing power, so no additional hardware resources are needed on-site.

¹YSIO X.pree and its features are not yet commercially available in all countries. Their future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.

²"Diagnostic Imaging Dataset Annual Statistical Release 2018/19." NHS, S.6.

³AI-Rad Companion Chest X-ray is not yet commercially available in all countries.

This press release and press pictures is available at

www.siemens-healthineers.com/press-room/press-releases/ysioxpree-ai-chest.html.

For further information on Radiography, please see

<https://www.siemens-healthineers.com/radiography>.

For further information on the AI-Rad Companion Product Family, please see

<https://www.siemens-healthineers.com/digital-health-solutions/digital-solutions-overview/clinical-decision-support/ai-rad-companion>.

Contact for journalists

Felix Michelfeit

Phone: +49 162 252 05 02; E-mail: felix.michelfeit@siemens-healthineers.com

Twitter: [@femichelfeit](https://twitter.com/femichelfeit)

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