

Patient-Friendly AI-Generated Summaries of Radiology Reports

Some radiology departments and imaging facilities may offer Artificial Intelligence (AI)-generated summaries of imaging reports that are easier for patients to read and understand. These summaries help explain medical findings in clear, simple, everyday language.

AI helps radiologists, but they are still responsible for reading images and making decisions about what they see. This document is to help you understand AI's role in radiology and how AI-generated summaries should be used.

Why AI-generated summaries are helpful

Radiology reports are written for providers and often use medical terms that may not be fully and correctly understood by non-medically trained individuals. A patient-friendly summary can:

- Help a patient understand what the imaging exam showed
- Lower patient stress caused by words or phrases which may not be fully understood
- Help patients ask better questions during their medical visits

How AI-generated summaries are developed

- AI (e.g., ChatGPT, Gemini, and Claude) reviews the radiologist's final report.
- AI utilizes medical terminology and other information within the results report to produce an updated report utilizing non-medical terms to provide a report more easily understood by individuals without medical training.
- The original report, written by the radiologist, is the official medical record document.

Important things to know

- AI-generated summaries do not replace the patient's ability or responsibility to speak with their provider concerning the imaging exam and the information provided within the radiologist's report.
- AI does not review the study images or provide new medical opinions within the AI-generated summaries.
- It is possible for the summary to have a mistake. AI may not "understand" the context for why your provider ordered the test, which can be important to interpret the results. Your provider and the radiologist are the best people to discuss what the results mean.
- The radiologist and healthcare team still manage a patient's care and are always present to discuss and review any factor of a care plan.

Where to go for answers to questions about AI summaries

If something in the summary is unclear, confusing or worrisome, talk with the provider or radiologist involved with the provision of the patient's care.

AI Reading Images Without A Doctor (Autonomous AI; Direct-to-Consumer AI reports)

Why not AI alone?

Reading imaging correctly often requires more than just the images. Radiologists use a patient's medical history, symptoms and professional judgment to understand what the findings mean and determine the best next step. AI alone may not have access to this information. It can also make mistakes, especially on findings that are complex or uncommon.

Is AI regulated?

Artificial Intelligence (AI) that analyzes medical images is regulated by the FDA as a medical device. These tools generally require authorization before being used clinically. Currently there is no FDA authorized device to interpret radiology images on their own without a doctor.

What does autonomous AI or AI direct-to-consumer mean?

These refer to patients getting an AI-generated review of their imaging test without any doctor involved.

Possible concerns of AI reading without a doctor (autonomous AI):

- AI results may be incorrect or incomplete
- AI may miss important findings
- AI may not work equally well for each patient or imaging exam
- AI may not review all images or have access to important clinical information
- AI may cause unnecessary worry or confusion
- AI may not provide clear guidance on next steps
- Patients may have questions about privacy

Is this common today?

No. Today imaging exams are read by licensed radiologists and results are communicated through healthcare providers.

What should patients expect in the future?

AI may make medical information easier to understand, but talking with your healthcare team will always be important.