



# Economic and Billing Guidance for Reporting CPT Code 76145

## What Do Radiology and Cardiology Departments Need to Know?

**Audience:** Radiology, medical physicist, imaging physicist, interventional and cardiovascular radiology, billing managers, and coding staff

This guide is intended to provide suggestions for practical clinical implementation of this procedure code.

### Background

The Centers for Medicare & Medicaid Services (CMS) now reimburses *Current Procedural Terminology*® (CPT®) code 76145, *Medical physics dose evaluation for radiation exposure that exceeds the institutional review threshold, including reports*. This code was primarily developed with fluoroscopic peak skin dose estimates in mind, though it could potentially be used for other organ-specific dose evaluations. This is the first CPT code explicitly recognizing the efforts of imaging medical physicists and allows hospitals to bill for their services directly.

The creation and implementation of CPT code 76145 resulted from a nearly decade-long cooperative effort of the American Association of Physicists in Medicine, American College of Radiology® (ACR®), Society of Interventional Radiology and American College of Cardiology. The code captures the considerable work required to complete a careful, patient-specific dose evaluation for patients who have undergone one or more high-dose procedures and are at increased risk of a severe deterministic radiation effect.

### Key Considerations

- Implementing this code will involve coordination of your facility's or individual department's billing/coding team, EMR specialists, medical physicists and the various departments where the order could originate (generally interventional radiology, cardiology and/or vascular surgery for peak skin dose estimates).
- The code is to be billed by the facility that employs or contracts with the physicist. This code is primarily billed in a hospital setting. Whether it is billed by the radiology department or another department is an internal decision. The code is to cover work done by the physicist in performing a dose estimate. The physicist may use software to assist with performance of a dose estimate, however, this code should not be billed for automated dose estimates performed by software.
- Add code 76145 to the Charge Description Master (CDM), EMR and Radiology Information System (RIS) with a description of "Medical physics dose evaluation including report." This code should be included in the EMR and RIS for easy provider selection. Providers would order and charge this code if a Physics Dose Evaluation is needed (e.g., High exposure during IR/Cath Lab). Seek guidance from your software provider or IT support.
- The hospital must ensure the medical physicist has access to the patient's medical record.
- A physician must order the service. This can be done individually by the physician performing a high-dose procedure or as a standing order based on facility dose metric thresholds.
- The physicist must be notified when a dose metric exceeds an institutional threshold.
- The physicist must calculate the total patient-specific radiation dose to the maximally exposed tissue(s) (usually an area of skin). This calculation may require measurement of the radiation output from relevant imaging systems, evaluation of equipment-generated dose indices or reports, and interviewing of staff involved in the procedures to collect the relevant required information.
- The physicist must summarize their calculations and results, including expected tissue reactions and their timing, into a final report. The physicist must sign the report, send it to the performing physician and archive

it in the patient's EMR. The physicist reviews the results with the interpreting/ordering provider. (Note: automatically generated reports from dose monitoring software can be a rich source of information but are typically insufficient to serve as a final report.)

- The physicist or performing physician should notify the relevant department to charge the code after performing the service.

## How Much Will CMS Pay for Medical Physicist Dose Calculation CPT Code 76145?

CY 2024 Medicare Physician Fee Schedule (MPFS) Code and Payment Level for 76145\*

Description	Code	Payment Rate
Medical Physics Dose Evaluation for Radiation Exposure That Exceeds Institutional Review Threshold, Including Report	76145	\$890.64

\*This total has been calculated by multiplying the code's total Relative Value Units by the CY 2024 MPFS conversion factor (\$32.74). Payment will vary depending on Medicare Administrative Contractors (MAC) locality and range from \$890.00 to \$1,253.72.

CY 2024 Hospital Outpatient Prospective Payment System (HOPPS) Code and Payment Level for 76145\*\*

Description	Code	APC Level	Payment Rate
Medical Physics Dose Evaluation for Radiation Exposure That Exceeds Institutional Review Threshold, Including Report	76145	APC 5723 (Level 3 Diagnostic Tests and Related Services)	\$510.68

\*\*These rates are calculated by multiplying the relative weight of the Ambulatory Payment Classification (APC) grouping of this code by the CY 2024 HOPPS conversion factor (\$87.382).

Lack of outpatient claims data has created a challenge for rate setting within HOPPS for CPT code 76145. When establishing charges within the facility's Charge Description Master (CDM), please carefully consider the activities of the physicist, the required equipment and time spent within the procedural room while performing the work of code 76145.

## Conclusion

To those who have already implemented this code, thank you! This procedure demonstrates the value of imaging physics and is an important step in improving patient care. For those who have yet to implement this code, please discuss it with your department manager/administrator and contact the [ACR Economics Committee on Medical Physics](#) with any questions.

## Resources

- AAPM Presentation by Ryan Fisher, PhD, [CPT for Diagnostic Physicists What It Is and How to Implement](#).
- AAPM Newsletter March/April 2022 author Samuel A. Einstein, PhD, [Imaging in Medical Physicist, You Have Your Own CPT Code! Are you using it?](#)
- Bracco Diagnostics July 2022 article, [Correct billing for hospital-based radiology department physicist review of radiation dosing](#).
- AAPM Newsletter January/February 2021 author Gerald White Jr., MS, [Imaging Medical Physics Code 76145 Effective January 1, 2021](#).
- ACR Radiology Coding Source™ for September–October 2020, [2021 CPT Code Update](#) (ACR Member-login required).
- [AMA/ACR Clinical Examples in Radiology, Fall 2020](#), Medical Physics Dose Evaluation.

<sup>1</sup>Jones AK, Pasciak AS. Calculating the peak skin dose resulting from fluoroscopically guided interventions. Part I: Methods. J Appl Clin Med Phys. 2011 Nov 15;12(4):3670. doi: 10.1120/jacmp.v12i4.3670. Erratum in: J Appl Clin Med Phys. 2014 Jul;15(4):402. PMID: 22089023; PMCID: PMC5718743.

<sup>2</sup>Jones AK, Pasciak AS. Calculating the peak skin dose resulting from fluoroscopically-guided interventions. Part II: case studies. J Appl Clin Med Phys. 2012 Jan 5;13(1):3693. doi: 10.1120/jacmp.v13i1.3693. PMID: 22231220; PMCID: PMC5716137.