Medical Policy Manual Radiology, Policy No. 40

Whole Body Computed Tomography (CT) Screening

Effective: November 1, 2026

Next Review: July 2027
Last Review: September 2026

IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

DESCRIPTION

Whole body computed tomography (CT) scanning is used to screen for diseases that might be present from neck to pelvis.

MEDICAL POLICY CRITERIA

Note: This policy does not apply to follow-up screening in an individual with a history of cancer.

Whole body computed tomography (CT) scanning as a screening tool for disease in asymptomatic individuals is considered **investigational**.

NOTE: A summary of the supporting rationale for the policy criteria is at the end of the policy.

CROSS REFERENCES

1. Computed Tomography to Detect Coronary Artery Calcifications, Radiology, Policy No. 6
2. Whole Body Duel X-Ray Absorptiometry (DXA) to Determine Body Composition, Radiology, Policy No. 41
3. Cone Beam Computed Tomography of the Breast, Radiology, Policy No. 59
4. Electromagnetic Navigation Bronchoscopy, Surgery, Policy No. 179

BACKGROUND

Whole body computed tomography scans (CT scans), encompassing the body from the neck to the pelvis, have been proposed as a general screening test for diseases of the thyroid (e.g., thyroid cancer), lungs (e.g., lung cancer), heart (e.g., cardiovascular disease), and abdominal and pelvic organs (e.g., cancer). Often the test is marketed directly to the patient and is offered through mobile CT scanners that travel from community to community. Different aspects of whole body CT scanning as a screening test have been addressed in individual policies (see Cross References).

EVIDENCE SUMMARY

U.S. FOOD AND DRUG ADMINISTRATION (FDA) ASSESSMENT

Information from the U.S. FDA indicates that recommendations from the U.S. Preventive Services Task Force and the American Medical Association have been added to those of the American College of Radiology, the American College of Cardiology/American Heart Association, the American Association of Physicists in Medicine, and the Health Physics Society, all of which do not recommend CT screening. The FDA has published the following information on whole body CT scanning:[1]

> At this time the FDA knows of no scientific evidence demonstrating that whole-body scanning of individuals without symptoms provides more benefit than harm to people being screened."

- Whole-body CT screening has not been demonstrated to meet generally accepted criteria for an effective screening procedure.
- Medical professional societies have not endorsed whole-body CT scanning for individuals without symptoms.
- CT screening of high-risk individuals for specific diseases such as lung cancer or colon cancer is currently being studied.
- The radiation from a CT scan may be associated with a very small increase in the possibility of developing cancer later in a person's life.

SYSTEMATIC REVIEWS

No systematic reviews were identified on whole body CT screening.

RANDOMIZED CONTROLLED TRIAL

Obuchowski (2006) conducted a small (50 subjects) randomized trial of whole body screening (vs. no screening for three years) to determine the feasibility of a larger scale study.[2] Ninety percent of the subjects were reported to be compliant with follow-up at two years. Images were interpreted independently by six radiologists from two institutions. Based on one interpretation, 16 (64%) subjects in the screening group had abnormal findings, but no cancers were detected. A second interpretation showed a similar rate of abnormal findings, although abnormalities were not in the exact same group of 16 subjects. On average, medical costs were twice as high for screened subjects. The authors concluded that a full-scale randomized controlled trial of whole-body screening will need to account for the large variability in interpretation of the images, the high rate of incidental findings, and the low prevalence of cancers.

NONRANDOMIZED STUDIES

Two retrospective reviews of findings/recommendations from 982 and 1,192 whole body CT screenings observed a strong association between age of the patient and the number of findings and recommendations.[3, 4] Actionable findings ranged from 22.5% of subjects younger than 40 years of age to 80% of patients older than or equal to 80 years of age.[3] Follow-up imaging was the most common recommendation.[4]

Brenner and Elliston published an article that estimated the potential radiation risks of full body CT scanning.[5] The authors compared the radiation risk of full body CT scanning with the radiation exposure of atomic bomb survivors and the subsequent cancer incidence. Based on this model, the authors suggest that a single full body CT examination in a 45-year old adult would result in an estimated lifetime attributable cancer mortality risk of around 0.08%, which would increase if annual screening was performed. While there are limitations in this type of modeling, at the very least this article underlines the fact that the imaging procedure itself is not risk free.

SUMMARY

The current literature does not support an improvement in health outcomes with whole body computed tomography (CT) screening. Moreover, the radiation dose of the CT scan itself could lead to an excess lifetime risk of fatal cancer, and that radiation dose and associate risk should be included as fundamental parameters for investigating the outcomes of a CT-based screening program.[6]

PRACTICE GUIDELINE SUMMARY

The published clinical practice guidelines and position statements support the above FDA analysis.[7-9] Currently, no evidence-based clinical practice guidelines or position statements recommend whole body CT screening in asymptomatic individuals.

SUMMARY

There is not enough research to show that whole body CT scanning as a screening tool in asymptomatic individuals improves health outcomes. No clinical guidelines based on research recommend whole body CT scanning as a screening tool in asymptomatic individuals. Therefore, whole body CT scanning as a screening tool for the evaluation of disease in asymptomatic individuals is considered investigational.

REFERENCES

1. U.S. Food and Drug Administration. Whole body scanning using computed tomography. Last update 03/23/2015. [cited 8/25/2026]. 'Available from:' http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/ucm115340.htm.
2. Obuchowski NA, Holden D, Modic MT, et al. Total-body screening: preliminary results of a pilot randomized controlled trial. *J Am Coll Radiol.* 2007;4(9):604-11. PMID: 17845965

3. Obuchowski N, Modic MT. Total body screening: predicting actionable findings. *Academic radiology.* 2006;13(4):480-5. PMID: 16554228
4. Furtado CD, Aguirre DA, Sirlin CB, et al. Whole-body CT screening: spectrum of findings and recommendations in 1192 patients. *Radiology.* 2005;237(2):385-94. PMID: 16170016
5. Brenner DJ, Elliston CD. Estimated radiation risks potentially associated with full-body CT screening. *Radiology.* 2004;232(3):735-8. PMID: 15273333
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7. National Institutes of Health. Computed Tomography (CT): Questions and Answers. 2/08/2024 [cited 8/25/2026]. 'Available from:' http://www.cancer.gov/cancertopics/factsheet/Detection/CT.
8. American College of Radiology. ACR Statement on Whole Body CT Screening. 2002. [cited 8/25/2026]. 'Available from:' https://www.acr.org/Advocacy/Position-Statements/Whole-Body-CT-Screening.
9. American Medical Association (AMA). AMA Code of Medical Ethics: Opinion 9.6.8 - Direct-to-Consumer Diagnostic Imaging Tests. [cited 8/25/2026]. 'Available from:' https://code-medical-ethics.ama-assn.org/ethics-opinions/direct-consumer-diagnostic-imaging-tests.

CODES

NOTE: There are no CPT or HCPCS codes specific to whole body CT scanning.

Codes	Number	Description
CPT	76497	Unlisted computed tomography procedure (eg diagnostic, interventional)
HCPCS	None	

Date of Origin: *September 2002*