



## Whole Body Computed Tomography Scan as a Screening Test

**Policy #** 00216

**Original Effective Date:** 09/20/2006

**Current Effective Date:** 04/10/2023

**Archived Date:** 10/16/2013

**Returned to Active Status:** 03/20/2019

*Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.*

*Note: This policy addresses whole-body computed tomography (CT) scanning or whole-body CT screening as a potential preventive measure for individuals who have no signs or symptoms of disease.*

### Services Are Considered Investigational

*Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.*

Based on review of available data, the Company considers whole body computed tomography scans as a screening test to be **investigational**.\*

### Background/Overview

This policy addresses whole-body CT scanning or whole-body CT screening as a potential preventive measure for individuals who have no signs or symptoms of disease.

Whole-body computed tomography scans, which encompass the body from the neck to the pelvis, have been proposed as a general screening test for diseases of the thyroid (i.e., cancer), lungs (i.e., lung cancer), heart (i.e., cardiovascular disease [CVD]), and abdominal and pelvic organs (cancer, CVD). 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, i.e. spiral CT scanning as a screening test for lung cancer; CT colonography as a screening test for colon cancer; and CT scanning to detect coronary calcium.

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### **Rationale/Source**

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. Food and Drug Administration approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, technology evaluation centers, reference to federal regulations, other plan medical policies, and accredited national guidelines.

In 2007, Obuchowski et al. reported a small (50 subjects) randomized trial of whole-body screening (vs. no screening for 3 years) to determine the feasibility of a larger scale study. Ninety percent of the subjects were reported to be compliant with follow-up at 2 years. Images were interpreted independently by 6 radiologists from 2 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 (RCT) 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.

Also identified were 2 retrospective reviews of findings/recommendations from 982 and 1,192 whole-body CT screenings. Both studies observed a strong association between age of the patient and the number of findings and recommendations. 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; follow-up imaging was the most common recommendation.

### **Summary**

Evidence has not changed substantially since a 2003 review that concluded “no published studies demonstrate that these procedures reduce morbidity or mortality when used to screen healthy, asymptomatic patients.” Moreover, the radiation dose of the CT scan itself could lead to an excess lifetime risk of fatal cancer and that radiation dose and associated risk should be included as fundamental parameters for investigating the outcomes of a CT-based screening program. Evidence reviewed in a 2010 report from the Canadian Health Services Research Foundation indicates that

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whole-body CT screening uses 500 to 1,000 times the radiation levels of a routine chest x-ray, without any demonstrated positive effects on life expectancy. The current literature does not support an improvement in health outcomes with whole-body CT screening. Therefore, this procedure is considered investigational.

## **References**

1. 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-Jan):604-11.
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3. 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.
4. Dixon GD. Computed tomography for screening purposes: a review of the literature--2003. Mo Med 2003; 100(2):140-4.
5. Buls N, de Mey J, Covens P et al. Health screening with CT: prospective assessment of radiation dose and associated detriment. JBR-BTR 2005; 88(1):12-16.
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8. U.S. Food and Drug Administration. Whole body scanning using computed tomography. Last update 04/06/2010. Available online at: <http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/ucm115340.htm>.

## **Policy History**

Original Effective Date: 09/20/2006

Current Effective Date: 04/10/2023

09/06/2006 Medical Director review

09/20/2006 Medical Policy Committee approval.

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10/01/2008	Medical Director review
10/22/2008	Medical Policy Committee approval. No change to coverage eligibility.
10/01/2009	Medical Policy Committee approval
10/14/2009	Medical Policy Implementation Committee approval. No change to coverage eligibility.
10/14/2010	Medical Policy Committee review
10/20/2010	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
10/06/2011	Medical Policy Committee review
10/19/2011	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
10/11/2012	Medical Policy Committee review
10/31/2012	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
10/03/2013	Medical Policy Committee review. Recommend archiving policy.
10/16/2013	Medical Policy Implementation Committee approval. Archived policy.
03/07/2019	Medical Policy Committee review
03/20/2019	Medical Policy Implementation Committee approval. Brought back to active status.
03/05/2020	Medical Policy Committee review
03/11/2020	Medical Policy Implementation Committee approval. No change to coverage.
03/04/2021	Medical Policy Committee review
03/10/2021	Medical Policy Implementation Committee approval. No change to coverage.
03/03/2022	Medical Policy Committee review
03/09/2022	Medical Policy Implementation Committee approval. No change to coverage.
03/02/2023	Medical Policy Committee review
03/08/2023	Medical Policy Implementation Committee approval. No change to coverage.

Next Scheduled Review Date: 03/2024

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### **Coding**

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CPT is a registered trademark of the American Medical Association.

Codes used to identify services associated with this policy may include (but may not be limited to) the following:

Code Type	Code
CPT	76497
HCPCS	No codes
ICD-10 Diagnosis	All related diagnoses

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\*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

- A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or
- B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
  1. Consultation with technology evaluation center(s);
  2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
  3. Reference to federal regulations.

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**NOTICE:** If the Patient's health insurance contract contains language that differs from the BCBSLA Medical Policy definition noted above, the definition in the health insurance contract will be relied upon for specific coverage determinations.

**NOTICE:** Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.

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