



CHAPTER 528.2 BONE DENSITY TESTING

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DISCLAIMER: This chapter does not address all the complexities of Medicaid policies and procedures, and must be supplemented with all State and Federal Laws and Regulations. Contact BMS Fiscal Agent for coverage, prior authorization requirements, service limitations, and other practitioner information.

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BACKGROUND

West Virginia Medicaid covers diagnostic, therapeutic radiology and nuclear medicine services. Prior authorization is required for specific services. If the radiology service is a covered service and requires prior approval, the prior authorization is required before the service is rendered regardless of the place of service unless medically necessary during an emergent visit at an emergency room. A referring/treating provider must order all covered services. The treating provider is the provider responsible for the management of the member's specific medical problems.

POLICY

528.2.1 Covered Services

Bone density testing (also known as bone mass measurement) can be used to identify members with osteoporosis and used as a tool to monitor response to osteoporosis treatment. The goal of bone density testing is to reduce the risk of fracture. Osteoporosis is a condition characterized by low bone mass, deterioration of bone tissue and disruption of bone architecture, compromised bone strength, and an increase in the risk of fracture.

Bone density can be measured with a variety of techniques in a variety of sites. Sites are broadly subdivided into axial (central) sites (e.g. hip or spine) and peripheral sites (e.g. wrist, finger, heel). The most commonly used techniques are Dual-energy X-ray Absorptiometry (DXA), Quantitative Computed Tomography (QCT), and Ultrasound Densitometry. An axial DXA bone density measurement is frequently used for initial screening purposes due to its reproducibility and ability to simultaneously establish the diagnosis of osteoporosis and provide a baseline if one is needed.

West Virginia Medicaid covers specific medically necessary bone density testing. The following rules apply:

- Bone density testing is limited to once every two years. More frequent requests will require prior authorization by the utilization management contractor (UMC), with documentation of medical necessity.
- Only axial testing (e.g. such as hip and spine) is allowed for monitoring osteoporosis therapy. Photodensitometry of a peripheral bone (e.g. such as wrist, finger and heel) and ultrasound bone densitometry are not allowed as part of this monitoring.

Only one scan may be billed regardless of how many sites are tested during the session. For those providers who are also the treating practitioner, a separate written interpretation of the scan must be included in the member's chart.

Refer to the policy in Section [528.1, Radiology Services](#) for additional information regarding prior authorization, retrospective review, and documentation requirements.

528.2.2 Non-Covered Services

Non-Covered services include, but are not limited to:

- Routine screening for members without risk factors

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- Photo-densitometry of a peripheral bone for monitoring osteoporosis
- Ultrasound bone densitometry for monitoring osteoporosis
- Any investigational methods used for bone density measurements such as the use of single and dual photon absorptiometry (these methods have largely been replaced by DXA)
- Peripheral and axial bone density tests performed on the same day

Non-covered services are not eligible for a West Virginia Department of Human Services (DoHS) Fair Hearing. See [42 § 431.220 *When a hearing is required*](#) for more information.

GLOSSARY

Definitions in [Chapter 200, Definitions and Acronyms](#) apply to all West Virginia Medicaid services, including those covered by this chapter. Definitions in this glossary are specific to this chapter.

Dual-energy X-ray Absorptiometry (DXA): DXA uses two different X-ray beams to estimate bone density in the spine and hip. Strong, dense bones allow less of the X-ray beam to pass through them. The amounts of each X-ray beam that are blocked by bone and soft tissue are compared to each other. It is fast and uses very low doses of radiation.

Nuclear Medicine: A diagnostic and treatment imaging process that uses special cameras and radioactive materials to form images of the body.

Optical Density: The degree to which the passage of light is absorbed or blocked.

Photo-densitometry: The measurement of optical density by means of a photocell that measures the loss of light transmitted through a material.

Quantitative Computerized Tomography: A type of computed tomography (CT) that provides accurate measures of bone density in the spine. Although this test may be an alternative to DXA, it is seldom used because it is expensive and requires a higher radiation dose.

Single and Dual Photon Absorptiometry: Calculates bone mass on the basis of tissue absorption of photons derived from either a radionuclide or an x-ray tube. Single photon absorptiometry measures the distal third of the radius which is composed mainly of cortical bone whereas most non-traumatic fractures occur in the axial skeleton (spine) and proximal femur (hip), which have a significant amount of trabecular bone. Dual photon absorptiometry measures trabecular bone but costs more, takes longer, and the patient must lie down.

Ultrasound Bone Densitometry: Ultrasound can be used to measure the bone density of the heel. This may be useful to determine a person's fracture risk, however, it is used less frequently than DXA because there are no guidelines that use ultrasound measurements to diagnose osteoporosis or predict fracture risk.

Utilization Management Contractor (UMC): The UMC is authorized to grant prior authorization for radiology services provided to West Virginia Medicaid members. The UMC utilizes nationally recognized medical appropriateness criteria established and approved by the Bureau for Medical Services for medical necessity reviews.

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REFERENCES

West Virginia State Plan references radiology services at sections [3.1-A\(3\)](#) and [3.1-B\(3\)](#).

CHANGE LOG

REPLACE	TITLE	EFFECTIVE DATE
Entire Chapter	528.2 Bone Density Testing	October 2, 2015
528.2.1 Covered Services	Added more information on bone density testing. Updated hyper-links and grammar changes.	April 24, 2019
528.2.2 Non-covered Services	Updated hyper-links and added bullets: <ul style="list-style-type: none"> Any investigational methods used for bone density measurements such as the use of single and dual photon absorptiometry (these methods have largely been replaced by DXA) Peripheral and axial bone density tests performed on the same day 	April 24, 2019
Glossary	Added definitions for Dual-energy X-ray Absorptiometry (DXA), Optical Density, Photo-densitometry, Quantitative Computerized Tomography, Single and Dual Photon Absorptiometry, and Ultrasound Bone Densitometry.	April 24, 2019
Entire Chapter	Updated hyperlinks, no policy changes.	September 1, 2024