

Policy: MP284

Section: Medical Benefit Policy

Subject: Bone Mineral Density Measurement

Applicable Lines of Business

Commercial	X	CHIP	X
Medicare	X	ACA	X
Medicaid	X		

I. Policy: Bone Mineral Density Measurement

II. Purpose/Objective:

To provide a policy of coverage regarding Bone Mineral Density Measurement

III. Responsibility:

- A. Medical Directors
- B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.
- Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age

DESCRIPTION:

Bone mineral density measurement is non-invasive and is used to measure bone mineral content and density to detect osteoporosis and predict the risk of fractures. The most common screening test that is used is the Dual-energy absorptiometry (DXA. DEXA).

INDICATIONS:

Central bone mineral density measurements are considered medically necessary for the following indications:

- Osteoporosis screening performed in accordance with USPSTF recommendations
- Members who have a fracture after the age of 50
- Members with one or more risk factors including but not limited to the following:
 - long-term corticosteroid therapy
 - long-term hormone replacement therapy
 - androgen deprivation therapy
 - other pharmacologic therapies known to negatively affect bone mass (e.g., anti-convulsants, heparin, aromatase inhibitors, etc.)
 - disease processes known to negatively affect bone mass (e.g., alcoholism, celiac sprue, malabsorption syndromes, renal failure, etc.)
 - spinal compression fracture

RECOMMENDED SCREENING FREQUENCY:

1. Members that are at a low risk for accelerated bone loss may be screened every 3-5 years
2. Members that are at a high risk for accelerated bone loss may be screened every 2 years
3. More frequent screening may be medically necessary based on risk factors when the information is required for treatment decision making.

Peripheral bone density measurement of cortical bone (e.g., forearm) is considered medically necessary only when one of the following criteria is met:

1. spinal instrumentation or bilateral hip prosthetics preclude reliable central DEXA measurements
2. members with asymptomatic primary hyperparathyroidism

Trabecular Bone Score

Trabecular bone score (TBS) to predict fracture risk is **NOT** considered to be a component of the USPSTF osteoporosis screening strategy and is therefore not covered as a screening service. TBS use will be subject to any applicable member deductible and cost sharing.

EXCLUSIONS:

Vertebral Fracture Assessment:

Screening for vertebral fractures as an adjunct to bone mineral density measurement is considered not medically necessary and is therefore NOT COVERED. There is insufficient evidence in the published peer reviewed scientific literature regarding the clinical utility using DEXA for evaluation of vertebral fractures.

The following two studies are not covered because they are not considered reasonable and necessary

- single photon absorptiometry
- dual photon absorptiometry

Medicare Business Segment:

Coverage for bone mineral density testing will be in accordance to Centers for Medicare & Medicaid Services NCD 150.3, and chapter 15, section 80.5 of the Medicare Benefit Policy Manual.

[NCD - Bone \(Mineral\) Density Studies \(150.3\) \(cms.gov\)](https://www.cms.gov/medicare-coverage-database/details/nondurable-limited-duration-coverage/nondurable-limited-duration-coverage-150-3)

The following two studies are not covered by Medicare because they are not considered reasonable and necessary under section 1862(a)(1)(A) of the Act:

- single photon absorptiometry
- dual photon absorptiometry

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

CODING ASSOCIATED WITH: Bone Mineral Density Measurement _

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at www.cms.gov or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.

- 77080 Dual energy x-ray absorptiometry (DEXA), bone density study, one or more sites; axial (central) skeleton (e.g., hips, pelvis, spine)
- 77081 Dual energy absorptiometry (DEXA), bone density study, one or more sites; appendicular (peripheral) skeleton (e.g., radius, wrist, heel)
- 76977 Ultrasound bone density measurement and interpretation, peripheral site(s), any method
- 77085 Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine), including vertebral fracture assessment
- 77086 Vertebral fracture assessment via dual-energy X-ray absorption (DXA)
- 77089 Trabecular bone score (TBS), structural condition of the bone microarchitecture; using dual X-ray absorptiometry (DXA) or other imaging data on gray-scale variogram, calculation, with interpretation and report on fracture-risk
- 77090 Trabecular bone score (TBS), structural condition of the bone microarchitecture; technical preparation and transmission of data for analysis to be performed elsewhere
- 77091 Trabecular bone score (TBS), structural condition of the bone microarchitecture; technical calculation only
- 77092 Trabecular bone score (TBS), structural condition of the bone microarchitecture; interpretation and report on fracture-risk only by other qualified health care professional

The following studies are not covered by Medicare:

- 78350 Bone density (bone mineral content) study, 1 or more sites; single photon absorptiometry
- 78351 Bone density (bone mineral content) study, 1 or more sites; dual photon absorptiometry
- G0130 single energy x-ray absorptiometry (sexa) bone density study, one or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist, heel)
- 0508T Pulse echo ultrasound bone density measurement resulting in indicator of axial bone mineral density, tibia [Bindex®]

Current Procedural Terminology (CPT®) © American Medical Association: Chicago, IL

LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

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UptoDate. Osteoporotic fracture risk assessment. Mar.29, 2021.

Management of Postmenopausal Osteoporosis: ACOG Clinical Practice Guideline No. 2. *Obstet Gynecol*. 2022; 139(4):698-717

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This policy will be revised as necessary and reviewed no less than annually.

Devised: July 2015

Revised: 8/16, 8/22 (Added Medicare Segment); 8/24 (add trabecular bone score info)

Reviewed: 8/17, 8/18, 8/19, 8/20, 8/21, 8/23

CMS UM Oversight Committee Approval: 12/23; 11/8/24

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.