OVERVIEW

Bone Mass Measurement (BMM) studies are radiologic, radioisotopic, or other procedures used to:

- Quantify bone mineral density, detect bone loss or determine bone quality
- Establish the diagnosis of osteoporosis
- Assess the response to, or efficacy of, osteoporosis drug therapy

The following procedures are used to measure bone mineral density:

- Dual energy x-ray absorptiometry (DXA)
- Radiographic absorptiometry (RA)
- Bone sonometry (ultrasound)
- Single energy x-ray absorptiometry (SEXA)
- Quantitative computed tomography (QCT)

Earlier technologies, such as single and dual photon absorptiometry (CPT code 78350 or 78351), are no longer used.

GUIDELINES

Each claim must be submitted with the diagnosis codes that reflect the condition of the patient, and indicate the reason(s) for which the service was performed. The patient’s medical record must document that the patient meets one of the requirements of a “qualified individual” as described in the guidelines below. Documentation must be available upon request. It is the responsibility of the provider to code to the highest level specified. The correct use of a diagnosis code listed, does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified.

BMM tests provided without an accompanying interpretation and report, as part of the test, will be denied as not medically necessary.

The following two studies are not covered by UnitedHealthcare:

- 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

UnitedHealthcare covers a bone mass measurement for a beneficiary once every two years (if at least 23 months have passed since the month the last bone measurement was performed). The criteria for bone mass measurement every two years are listed below:

- It is performed with a bone densitometer, other than single or dual photon absorptiometry (DPA) or a bone sonometer (e.g., ultrasound) device that has been approved or cleared for marketing by the Food and Drug Administration (FDA).
• It is performed on a qualified individual for the purpose of identifying bone mass, detecting bone loss or determining bone quality. The term “qualified individual” means an individual who meets the medical indications for at least one of the criteria listed below:
  o A woman who has been determined by the physician or qualified non-physician treating her to be estrogen-deficient and at clinical risk for osteoporosis, based on her medical history and other indicators
    NOTE: Since not every woman who has been prescribed estrogen replacement therapy (ERT) maybe receiving an “adequate” dose of the therapy, the fact that a woman is receiving ERT should not preclude her treating physician or other qualified treating nonphysician practitioner from ordering a bone mass measurement for her. If a bone mass measurement is ordered for a woman following a careful evaluation of her medical need, however, it is expected that the ordering/treating physician (or other qualified treating nonphysician practitioner) will document in her medical record why he or she believes that the woman is estrogen-deficient and at clinical risk for osteoporosis.
  o An individual with vertebral abnormalities as demonstrated by an x-ray to be indicative of osteoporosis, osteopenia (low bone mass), or vertebral fracture
  o An individual receiving (or expecting to receive) glucocorticoid (steroid) therapy equivalent to 5 mg of Prednisone, or greater, per day for more than 3 months
  o An individual with primary hyperparathyroidism
  o An individual being monitored to assess the response to or efficacy of an FDA approved osteoporosis drug therapy. This service must be performed using dual energy x-ray absorptiometry system (axial skeleton).
• If it is furnished by a qualified supplier or provider of such services, under at least the general level of supervision of a physician as defined in 42 CFR 410.32(b)
• If the test is ordered by the individual’s physician or qualified non-physician practitioner, who is treating the beneficiary following an evaluation of the need for the measurement, including a determination as to the medically appropriate measurement to be used for the individual, and who uses the results in the management of the patient
• The test is reasonable and necessary for diagnosing, treating or monitoring of a “qualified” individual as defined above.

For conditions specified below, UnitedHealthcare will cover a bone mass measurement for a qualified beneficiary more frequently than every two years, if medically necessary. To be considered, at least eleven months must have elapsed since the previous bone mass measurement test. Such conditions are:
• Monitoring beneficiaries on long-term glucocorticoid (steroid) therapy, equal to 5 mg of Prednisone or greater, per day for more than three months
• Follow up bone mineral density testing to assess FDA-approved osteoporosis drug therapy until a response to such therapy has been documented over time
• Confirming baseline BMMs to permit monitoring of beneficiaries in the future

UnitedHealthcare will cover a confirmatory baseline bone mass measurement when it is performed with a dual energy x-ray absorptionmetry system (axial skeletal) to permit monitoring of beneficiaries in the future, if the initial test was performed with a technique that is different from the proposed monitoring method (for example, if the initial test was bone sonometry and the patient will be monitored with bone densitometry, a second test utilizing densitometry will be paid). If the initial bone mass measurement was performed by a dual-energy x-ray absorptionmetry system (axial skeletal), a confirmatory BMM is not covered.

It is not medically necessary to have both peripheral and axial BMM tests performed on the same day.

Medical record documentation maintained by the performing physician/qualified nonphysician practitioner must clearly indicate the medical necessity of the service being billed. In addition, documentation that the service was performed must be included in the patient’s medical record. If the service exceeds the frequency parameter listed in this policy guideline, documentation of medical necessity must be submitted. This information is normally found in the office/progress notes, hospital notes, and/or procedure report.

**APPLICABLE CODES**

The following list(s) of codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>76977</td>
<td>Ultrasound bone density measurement and interpretation, peripheral site(s), any method</td>
</tr>
</tbody>
</table>
## Absorptiometry

Absorptiometry: A diagnostic technique for measuring bone mineral density in which an image of bone is produced from computerized analysis of absorption rates of photons directed in a focused beam at a body part.

## Bone Densitometer

Bone Densitometer: The determination of variations in density by comparison with that of another material or with a certain standard.

## PURPOSE

The Medicare Advantage Policy Guideline documents are generally used to support UnitedHealthcare Medicare Advantage claims processing activities and facilitate providers' submission of accurate claims for the specified services. The document can be used as a guide to help determine applicable:

- Medicare coding or billing requirements, and/or
- Medical necessity coverage guidelines; including documentation requirements.

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### CPT Code

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>77078</td>
<td>Computed tomography, bone mineral density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine)</td>
</tr>
<tr>
<td>77080</td>
<td>Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine)</td>
</tr>
<tr>
<td>77081</td>
<td>Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist, heel)</td>
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<tr>
<td>77085</td>
<td>Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine), including vertebral fracture assessment</td>
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<tr>
<td>78350</td>
<td>Bone density (bone mineral content) study, 1 or more sites; single photon absorptiometry (Non-covered by Medicare)</td>
</tr>
<tr>
<td>78351</td>
<td>Bone density (bone mineral content) study, 1 or more sites; dual photon absorptiometry, 1 or more sites (Non-covered by Medicare)</td>
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<tr>
<td>0508T</td>
<td>Pulse-echo ultrasound bone density measurement resulting in indicator of axial bone mineral density, tibia (Effective 07/01/2018)</td>
</tr>
<tr>
<td>0554T</td>
<td>Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data, assessment of bone strength and fracture risk and bone mineral density, interpretation and report (Effective 07/01/2019)</td>
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<tr>
<td>0555T</td>
<td>Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data (Effective 07/01/2019)</td>
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<tr>
<td>0556T</td>
<td>Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; assessment of bone strength and fracture risk and bone mineral density (Effective 07/01/2019)</td>
</tr>
<tr>
<td>0557T</td>
<td>Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; interpretation and report (Effective 07/01/2019)</td>
</tr>
<tr>
<td>0558T</td>
<td>Computed tomography scan taken for the purpose of biomechanical computed tomography analysis (Effective 07/01/2019)</td>
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### HCPCS Code

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<tr>
<th>HCPCS Code</th>
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<tr>
<td>G0130</td>
<td>Single energy x-ray absorptiometry (SEXA) bone density study, one or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist, heel)</td>
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### Revenue Code

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<tr>
<td>320</td>
<td>Radiology - diagnostic</td>
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</tbody>
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## ICD-10 Diagnosis Codes

Bone (Mineral) Density Studies (NCD 150.3): ICD-10 Diagnosis Code List

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**DEFINITIONS**

**Absorptiometry**: A diagnostic technique for measuring bone mineral density in which an image of bone is produced from computerized analysis of absorption rates of photons directed in a focused beam at a body part.

**Bone Densitometer**: The determination of variations in density by comparison with that of another material or with a certain standard.
UnitedHealthcare follows Medicare guidelines such as LCDs, NCDs, and other Medicare manuals for the purposes of determining coverage. It is expected providers retain or have access to appropriate documentation when requested to support coverage. Please utilize the links in the References section below to view the Medicare source materials used to develop this resource document. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

REFERENCES

CMS National Coverage Determination (NCD)
NCD 150.3 Bone (Mineral) Density Studies

CMS Local Coverage Determinations (LCDs)

<table>
<thead>
<tr>
<th>LCD</th>
<th>Medicare Part A</th>
<th>Medicare Part B</th>
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<tr>
<td>L36460 (Bone Mass Measurement) CGS</td>
<td>KY, OH</td>
<td>KY, OH</td>
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<tr>
<td>L36356 (Bone Mineral Density Studies) First Coast</td>
<td>FL, PR, VI</td>
<td>FL, PR, VI</td>
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CMS Articles

<table>
<thead>
<tr>
<th>Article</th>
<th>Medicare Part A</th>
<th>Medicare Part B</th>
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<tr>
<td>A55939 (Bone mineral density studies revision to the Part A and Part B LCD) First Coast</td>
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<tr>
<td>A55125 (Bone mineral density studies revision to the Part A and Part B LCD) First Coast</td>
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<tr>
<td>A55681 (Additional Information Required for Coverage and Pricing for Category III CPT® Codes) Noridian</td>
<td>AK, ID, OR, WA, AZ, MT, ND, SD, UT, WY</td>
<td>AK, ID, OR, WA, AZ, MT, ND, SD, UT, WY</td>
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<tr>
<td>A55607 (Additional Information Required for Coverage and Pricing for Category III CPT® Codes) Noridian</td>
<td>CA, AS, GU, HI, MP, NV</td>
<td>CA, AS, GU, HI, MP, NV</td>
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</table>

CMS Benefit Policy Manual
Chapter 15; § 80.5-80.5.8 Bone Mass Measurements (BMMs)

CMS Claims Processing Manual
Chapter 13; § 140-140.1 Bone Mass Measurements (BMMs)/Payment Methodology and HCPCS Coding

CMS Transmittals
Transmittal 1658, Change Request 9540, Dated 04/29/2016 (Coding Revisions to National Coverage Determinations)
Transmittal 2348, Change Request 11392, Dated 08/09/2019 (ICD-10 and Other Coding Revisions to National Coverage Determinations (NCDs)—January 2020 Update)

MLN Matters
Article MM9540, Coding Revisions to National Coverage Determinations
Article MM10473, ICD-10 and Other Coding Revisions to National Coverage Determinations (NCDs)
Article MM11392, International Classification of Diseases, 10th Revision (ICD-10) and Other Coding Revisions to National Coverage Determination (NCDs) – January 2020 Update
Article SE1525, ICD-10-CM Diagnosis Codes for Bone Mass Measurement

UnitedHealthcare Commercial Policy
Preventive Care Services

Other
Preventative Services, Department of Health and Human Services, CMS Website
GUIDE.pngLINE HISTORY/REVISION INFORMATION

Revisions to this summary document do not in any way modify the requirement that services be provided and documented in accordance with the Medicare guidelines in effect on the date of service in question.

<table>
<thead>
<tr>
<th>Date</th>
<th>Action/Description</th>
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<tbody>
<tr>
<td>08/14/2019</td>
<td>• Update based on CMS Transmittal 2348, Change Request 11392</td>
</tr>
<tr>
<td></td>
<td>• Added CPT Codes 0554T-0558T, effective 07/01/2019</td>
</tr>
<tr>
<td></td>
<td>• Removed ICD-10 Diagnosis Codes M85.9, M89.9, M94.9, and Q55.4, effective 12/31/2019</td>
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</table>

TERMS AND CONDITIONS

The Medicare Advantage Policy Guidelines are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates.

These Policy Guidelines are provided for informational purposes, and do not constitute medical advice. Treating physicians and healthcare providers are solely responsible for determining what care to provide to their patients. Members should always consult their physician before making any decisions about medical care.

Benefit coverage for health services is determined by the member specific benefit plan document* and applicable laws that may require coverage for a specific service. The member specific benefit plan document identifies which services are covered, which are excluded, and which are subject to limitations. In the event of a conflict, the member specific benefit plan document supersedes the Medicare Advantage Policy Guidelines.

Medicare Advantage Policy Guidelines are developed as needed, are regularly reviewed and updated, and are subject to change. They represent a portion of the resources used to support UnitedHealthcare coverage decision making. UnitedHealthcare may modify these Policy Guidelines at any time by publishing a new version of the policy on this website. Medicare source materials used to develop these guidelines include, but are not limited to, CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Medicare Benefit Policy Manual, Medicare Claims Processing Manual, Medicare Program Integrity Manual, Medicare Managed Care Manual, etc. The information presented in the Medicare Advantage Policy Guidelines is believed to be accurate and current as of the date of publication, and is provided on an "AS IS" basis. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

You are responsible for submission of accurate claims. Medicare Advantage Policy Guidelines are intended to ensure that coverage decisions are made accurately based on the code or codes that correctly describe the health care services provided. UnitedHealthcare Medicare Advantage Policy Guidelines use Current Procedural Terminology (CPT®), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT® or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

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*For more information on a specific member’s benefit coverage, please call the customer service number on the back of the member ID card or refer to the Administrative Guide.