

Medical Policy



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Title: **Bone Mineral Density Studies**

Professional

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DESCRIPTION

Bone mineral density (BMD) studies are used to evaluate for low bone mass which occurs with osteoporosis. BMD is typically expressed in terms of the number of standard deviations (SD) the BMD falls below the mean for young healthy adults. This number is termed the T score. The National Osteoporosis Foundation (NOF) guidelines recommend that pharmacologic therapy be initiated in women with BMD T scores below -2 in the absence of other risk factors, and in women with BMD T scores below -1.5 if other risk factors are present. Central measurements of the hip and spine are the most predictive of fragility fractures

Dual X-Ray (DXA) is probably the most commonly used technique to measure BMD, because of its ease of use, low radiation exposure, and its ability to measure BMD at both the hip and spine.

POLICY

1. A baseline, central (not peripheral) bone density measurement is considered medically necessary if ONE of the following criteria (a. through g.) is met:
 - a. ALL Postmenopausal (amenorrheic for longer than six (6) months) women under age 65 who have one or more risk factors for osteoporotic fracture (besides menopause) listed below:
 - 1) Personal history of recent fracture
 - 2) First degree relative with history of osteoporosis
 - 3) Currently smokes tobacco
 - 4) Excessive alcohol intake (history of or current use)
 - b. All women aged 65 and older, regardless of additional risk factors
 - c. Postmenopausal women (amenorrheic for longer than six (6) months) who are considering therapy for osteoporosis when results will facilitate treatment decisions.

- d. Repeat or follow-up central bone density measurement will be considered medically necessary if at least 23 months have passed since last bone density measurements.
 - e. Primary hyperparathyroidism (male or female)
 - f. Receiving long-term glucocorticoid therapy equivalent to or greater than 7.5 mg/day of prednisone, for three months or longer (male or female).
 - g. Bone density measurement will be considered for the following conditions (male or female):
 - 1) Anorexia nervosa
 - 2) Calcitonin deficiency
 - 3) Chemotherapeutic agents which affect bone density
 - 4) Chronic renal failure
 - 5) Chronic use of anti-convulsants (particularly Dilantin)
 - 6) Chronic use of heparin
 - 7) Cushing's Syndrome
 - 8) Fragility fracture
 - 9) Hypersecretion of calcitonin
 - 10) Hyperthyroidism or Hypothyroidism
 - 11) Hypogonadism
 - 12) Lupron therapy in men
 - 13) Malabsorption Syndromes
 - 14) Malignancies (multiple myeloma)
 - 15) Organ transplantation
 - 16) Prolonged amenorrhea (six (6) months duration or longer)
 - 17) Prolonged immobilization
 - 18) Radiologic evidence of osteopenia
 - 19) Rheumatoid arthritis
 - 20) Untreated premature menopause
2. Bone density measurement is considered NOT medically necessary in the following:
 - a. Routine screening for osteoporosis or osteoporosis risk when criteria above are not met.
 - b. Individuals who do not intend to use hormonal or non-hormonal therapy
 - c. When the results obtained will not influence treatment decisions.
 - d. Peripheral bone density studies (77079, 77081, 76977 and G0130)
 - e. Bone density measurements done at peripheral sites with tests such as peripheral dual-energy x-ray absorptiometry (pDEXA) of the forearm, radiographic absorptiometry of the phalanges, or ultrasound of the heel may not change reliably with treatment. Central measurements of the hip and spine are more predictive of fracture than peripheral sites.
 3. Osteopenia - Bone density Testing will be allowed if the doctor indicates osteopenia in the records or on the claim.
 4. Sahara Ultrasound System - Sahara Ultrasound System Bone density Testing system will be allowed once per year, based on the same criteria as the DEXA,

utilizing Procedure Code 76977 (ultrasound bone density measurement and interpretation, peripheral site(s), any method). The procedure is applicable for the above Diagnosis Code

Procedure code 77080 is to be processed as preventive care. Categories of qualified individuals include ONE of the following:

- An estrogen-deficient woman at clinical risk for osteoporosis
- An individual with vertebral abnormalities
- An individual receiving long-term glucocorticoids (steroid) therapy
- An individual with primary hyperparathyroidism, or
- An individual being monitored to assess the response to or efficacy of an approved osteoporosis drug therapy.

UTILIZATION

1. Coverage for follow-up bone mass measurements will be limited to only one measurement every two (2) years for members who receive coverage of bone mass measurements.
2. Follow-up bone mass measurements performed more frequently for pathological diagnosis may be covered when medically necessary.

CODING

CPT/HCPCS

76977	Ultrasound bone density measurement and interpretation, peripheral site(s), any method
77078	Computed tomography, bone mineral density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine)
77080	Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (e.g., hips, pelvis, spine)
77082	Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; vertebral fracture assessment
78351	Bone density (bone mineral content) study, one or more sites; dual photon absorptiometry, one or more sites

DIAGNOSIS

These diagnoses are otherwise subject to medical policy as stated above

203.00	Multiple myeloma, without mention of remission
203.01	Multiple myeloma, in remission
242.00	Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01	Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.10	Toxic uninodular goiter without mention of thyrotoxic crisis or storm
242.11	Toxic uninodular goiter with mention of thyrotoxic crisis or storm
242.20	Toxic multinodular goiter without mention of thyrotoxic crisis or storm
242.21	Toxic multinodular goiter with mention of thyrotoxic crisis or storm
242.30	Toxic nodular goiter, unspecified without mention of thyrotoxic crisis or

- storm
- 242.31 Toxic nodular goiter, unspecified with mention of thyrotoxic crisis or storm
- 242.40 Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm
- 242.41 Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm
- 242.80 Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm
- 242.81 Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm
- 242.90 Thyrotoxicosis without mention of goiter or other cause without mention of thyrotoxic crisis or storm
- 242.91 Thyrotoxicosis without mention of goiter or other cause with mention of thyrotoxic crisis or storm
- 244.1 Other postablative hypothyroidism
- 244.2 Iodine hypothyroidism
- 244.3 Other iatrogenic hypothyroidism
- 252.00 Hyperparathyroidism, unspecified
- 252.01 Primary hyperparathyroidism
- 252.02 Secondary hyperparathyroidism, non-renal
- 252.08 Other hyperparathyroidism
- 253.4 Other anterior pituitary disorders
- 255.0 Cushing's syndrome
- 256.2 Postablative ovarian failure
- 256.31 Premature menopause
- 256.39 Other ovarian failure
- 257.2 Other testicular hypofunction
- 307.1 Anorexia nervosa
- 579.9 Unspecified intestinal malabsorption
- 585.1 Chronic kidney disease, Stage I
- 585.2 Chronic kidney disease, Stage II (mild)
- 585.3 Chronic kidney disease, Stage III (moderate)
- 585.4 Chronic kidney disease, Stage IV (severe)
- 585.5 Chronic kidney disease, Stage V
- 585.6 End stage renal disease
- 585.9 Chronic kidney disease, unspecified
- 627.4 Symptomatic states associated with artificial menopause
- 714.0 Rheumatoid arthritis
- 733.00 Osteoporosis, unspecified
- 733.01 Senile osteoporosis
- 733.02 Idiopathic osteoporosis
- 733.03 Disuse osteoporosis
- 733.09 Osteoporosis, other
- 733.10 Pathologic fracture, unspecified site

- 733.11 Pathologic fracture of humerus
- 733.12 Pathologic fracture of distal radius and ulna
- 733.13 Pathologic fracture of vertebrae
- 733.14 Pathologic fracture of neck of femur
- 733.15 Pathologic fracture of other specified part of femur
- 733.16 Pathologic fracture of tibia or fibula
- 733.19 Pathologic fracture of other specified site
- 733.90 Disorder of bone and cartilage, unspecified
- V42.0 Organ or tissue replaced by transplant, Kidney
- V42.1 Organ or tissue replaced by transplant, Heart
- V42.2 Organ or tissue replaced by transplant, Heart valve
- V42.3 Organ or tissue replaced by transplant, skin
- V42.4 Organ or tissue replaced by transplant, bone
- V42.5 Organ or tissue replaced by transplant, cornea
- V42.6 Organ or tissue replaced by transplant, lung
- V42.7 Organ or tissue replaced by transplant, liver
- V58.65 Long-term (current) use of steroids
- V82.81 Osteoporosis

REFERENCES

1. Cummings SR, Palermo L, Browner W et al. Monitoring osteoporosis therapy with bone densitometry: misleading changes and regression to the mean. Fracture Intervention Trial Research Group. JAMA 2000; 283(10):1318-21.
2. Faulkner KG, McClung MR, Ravn DJ et al. Monitoring skeletal response to therapy in early post-menopausal women: which bone to measure. J Bone Miner Res 1996; 11(suppl 1):S96.

Government Agency; Medical Society; and Other Authoritative Publications

1. Federal Register, Wednesday, June 24, 1998, volume 63, no. 121 pp. 34320-8.
2. National Osteoporosis Foundation. Osteoporosis: Review of the evidence for prevention, diagnosis and treatment and cost-effectiveness analysis. Osteoporosis Int 1998; 8(suppl 4):1-88.
3. Physician's Guide to Prevention and Treatment of Osteoporosis. National Osteoporosis Foundation, 1150 17th Street, NW, Suite 500, Washington, DC. (The guide also may be accessed via the Internet at www.nof.org.)
4. 1999 TEC Assessment; Tab 19.
5. 1999 TEC Assessment; Tab 24.
6. 2002 TEC Assessment: Tab 5.