

Diagnosis The 2020 update of the American Association of Clinical Endocrinologists (AACE) guidelines provides the following criteria for the diagnosis of osteoporosis in postmenopausal women [11] : T-score ≤ -2.5 or below in the lumbar spine, femoral neck, total proximal femur, or 1/3 radius Low-trauma spine or hip fracture (regardless of BMD) T-score between -1.0 and -2.5 and a fragility fracture of proximal humerus, pelvis, or distal forearm T-score between -1.0 and -2.5 and high FRAX[®] fracture probability based on country-specific thresholds The National Osteoporosis Guideline Group (NOGG) recommends considering the following as routine in the investigation of osteoporosis/fragility fractures [246] : Clinical history Physical examination including measurement of height and assessment of thoracic kyphosis Complete blood cell count Erythrocyte sedimentation rate or C-reactive protein Serum calcium, albumin, creatinine, phosphate, alkaline phosphatase, and liver transaminases Serum 25-hydroxyvitamin D Thyroid function tests The NOGG recommends that clinicians consider perform the following studies, as indicated [246] : Serum electrophoresis, immunoglobulins, and free light chain assay Plasma parathyroid hormone (PTH), if primary hyperparathyroidism suspected Serum testosterone, sex hormone-binding globulin, follicle-stimulating hormone, luteinizing hormone 24-h urinary free cortisol/overnight dexamethasone suppression test Serum prolactin Serum magnesium if hypocalcemic Tissue transglutaminase antibodies,^{¶±¶}endomysial antibodies (celiac disease screen) Urinary calcium excretion Markers of bone turnover (eg, carboxy-terminal collagen crosslinks [CTX], P1NP) Lateral radiographs of lumbar and thoracic spine or DXA-based lateral vertebral imaging Bone densitometry (DXA) if indicated by FRAX assessment and/or required for BMD monitoring Isotope bone scan