



01/08/2021 - Imaging Appointment in Utah Diabetes Center Bone Density

Imaging - Results Only

MEDICAL IMAGING

DXA Axial Skeleton W Vertebral FX Assess (Final result)

DXA Axial Skeleton W Vertebral FX Assess

Resulted: 01/13/21 1617, Result status: Final result

Ordering provider: Sandra S Buys, MD 01/08/21 0928

Order status: Completed

Resulted by: Vishnu Sundaresh, MD

Filed by: Vishnu Sundaresh, MD 01/13/21 1623

Performed: 01/08/21 1006 - 01/08/21 1007

Acknowledged by: Sandra S Buys, MD on 01/18/21 1129

Components

Component	Value	Reference Range	Flag	Lab
L Spine BMD	0.959	g/cm2	—	—
Comment: L3 and 4 are excluded due to sclerosis				
T Score, L1-L4	-0.20	—	—	—
Z Score, L1-L4	2.20	—	—	—
Hip BMD RT	0.879	g/cm2	—	—
T Score, Hip RT	-0.50	—	—	—
Z Score, Hip RT	1.40	—	—	—
Hip BMD LT	0.834	g/cm2	—	—
T Score, Hip LT	-0.90	—	—	—
Z Score, Hip LT	1.00	—	—	—
Femoral Neck BMD RT	0.620	g/cm2	—	—
T Score, Hip Femoral Neck RT	-2.10	—	—	—
Z Score, Hip Femoral Neck RT	0.10	—	—	—
Femoral Neck BMD LT	0.680	g/cm2	—	—
T Score, Hip Femoral Neck LT	-1.50	—	—	—
Z Score, Hip Femoral Neck LT	0.60	—	—	—

Indications

Osteopenia of multiple sites [M85.89 (ICD-10-CM)]

Findings



01/08/2021 - Imaging Appointment in Utah Diabetes Center Bone Density (continued)

Imaging - Results Only (continued)

Title BONE MINERAL DENSITY REPORT

INSTRUMENT: Hologic Horizon W

RELEVANT MEDICAL HISTORY: This is the 4th bone density determination on this machine.

LOCATION: Utah Diabetes and Endocrinology Center

RACE: Caucasian

RELEVANT HISTORY: PERSONAL history of fracture
No

Parental History of Hip Fracture
No

ALCOHOL usage (3 drinks per day)
No

Current SMOKER
No

Prior or current chronic glucocorticoid use
No

RHEUMATOID arthritis
No

Medical conditions that impact bone health
No

175 lbs 0 oz
5' 5"
Body mass index is 29.12 kg/m².

MEDICAL CONDITIONS CONTRIBUTING TO BONE LOSS:
Cancer: breast carcinoma

OTHER HISTORY:
Reported height loss: 0.50"
Women: natural menopause
Menopause age: 54

TECHNICAL QUALITY: Good

LIMITATIONS OF STUDY:
Unable to assess spinal bone density due to extensive sclerosis.
Vertebral Fracture Assessment (VFA)
Vertebrae evaluated: T7-L4
No lumbar or lower thoracic vertebral fractures visualized
EXCEPT T7 moderate wedge - recommend T spine XR

FRAX:
Using the World Health Organization FRAX® algorithm, the 10 year absolute risk for any major osteoporotic fracture is 14%, and the risk for hip fracture is 3.7%.

ASSESSMENT:
Low bone mass (osteopenia).
Compared to bone density study obtained 12/28/2018, there has been a statistically significant increase in BMD at the total hip of 20.6%.

FRACTURE RISK:



01/08/2021 - Imaging Appointment In Utah Diabetes Center Bone Density (continued)

Imaging - Results Only (continued)

Fracture risk: high (based on 10 year absolute risk using FRAX calculator)

GENERAL MEASURES FOR BONE HEALTH:

- Daily calcium intake should equal 1000 to 1200 mg. Dietary intake averages 600 mg/day. Supplemental calcium should be taken to make up the difference.
- Recommended range for Vitamin D intake is 800-2000 IU/day in patients over 70, and 600-2000 IU/day in patients less than 70.
- Reasonable weight bearing exercise should be encouraged.
- Smoking cessation should be encouraged in patients with a history of chronic tobacco use.

RECOMMENDATIONS:

The International Society for Clinical Densitometry (ISCD) recommends forearm BMD measurement in circumstances where hip and/or spine cannot be measured or interpreted. The diagnosis of osteoporosis is based on the BMD at the lowest site.

*PRESCRIPTION TREATMENT IS RECOMMENDED.

EVALUATION:

Metabolic evaluations should be considered in all patients with osteoporosis. If not previously performed, a metabolic evaluation might be appropriate for this patient. One study has shown that 32% of postmenopausal women with osteoporosis will be found to have a secondary causes of osteoporosis by laboratory evaluation. The following laboratory evaluation will detect 98% of these patients: 24 hour urine calcium, 25 (OH) vitamin D level, iPTH, serum calcium and TSH (if patient is on thyroid hormone). (J Clin Endocrinol Metab 87:4431-4437, 2002).

FOLLOW-UP DXA:

Follow-up bone density measurement could be considered in greater than 24 months, or sooner if clinically indicated, to assess the need for therapy and/or the effectiveness of current therapy.

Clinical correlation is required, because no specific bone disease can be diagnosed or excluded on the basis of these findings.

Signed

Electronically signed by Vishnu Sundaresh, MD on 1/13/21 at 1623 MST

All Reviewers List

Sandra S Buys, MD on 1/18/2021 11:29