

Osteoporosis Testing Facility

Bone Density Report

Name: Brown, Alice

Sex: Female

Patient ID:

Ethnicity: White

Referring Provider:

Date of Birth:

Date of Exam: Follow up exam performed on 06/02/2021.

Indication: Osteoporosis

Referring Physician:

Study: Bone densitometry was performed.

Accession number:

Manufacturer and model: Hologic Discovery W, APEX software 4.5

Bone Density: 6/2/2021

Region	BMD (g/cm ²)	T-score	Z-score
AP Spine(L1-L4)	1.066	0.2	2.2
Total Hip(Left)	0.723	-1.8	-0.4
Femoral Neck(Left)	0.602	-2.2	-0.5

World Health Organization criteria for Bone Mineral Density (BMD) impression classify patients as Normal (T-score at or above -1.0), Osteopenia (T-score between -1.0 and -2.5), or Osteoporosis (T-score at or below -2.5).

Our facility bases its interpretation on the guidelines of the ISCD (International Society for Clinical Densitometry) which recommends the following sites for interpretation: Lumbar Spine, Total Hip, Femoral Neck and 1/3 Radius (if performed).



FRAX®

WHO Fracture Risk Assessment Tool

10-year Fracture Risk¹:

Major Osteoporotic Fracture	11%
Hip Fracture	2.3%

Reported Risk Factors:

US (Caucasian), Neck BMD=0.602, BMI=20.7

¹ FRAX® Version 3.08. Fracture probability calculated for an untreated patient. Fracture probability may be lower if the patient has received treatment.

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Previous Exams:

Region	Exam Date	Age	BMD (g/cm ²)	T-score	BMD Change vs. Baseline	BMD Change vs. Previous
AP Spine(L1-L4)	06/02/2021	68	1.066	0.2	3.4%*	11.5%*
	05/30/2019	66	0.957	-0.8	-7.2%*	-5.6%*
	03/02/2017	64	1.013	-0.3	-1.7%	-4.4%*
	04/10/2014	61	1.060	0.1	2.8%*	5.7%*
	02/20/2012	59	1.003	-0.4	-2.8%*	-2.5%*
	02/15/2010	57	1.028	-0.2	-0.3%	-0.3%
	10/24/2007	55	1.031	-0.1		
Total Hip(Left)	06/02/2021	68	0.723	-1.8	0.4%	1.9%
	05/30/2019	66	0.710	-1.9	-1.4%	0.1%
	03/02/2017	64	0.709	-1.9	-1.5%	-1.9%
	04/10/2014	61	0.723	-1.8	0.4%	0.2%
	02/20/2012	59	0.722	-1.8	0.2%	-2.4%
	02/15/2010	57	0.739	-1.7	2.6%	2.6%
	10/24/2007	55	0.720	-1.8		
Femoral Neck(Left)	06/02/2021	68	0.602	-2.2	-4.0%	4.9%
	05/30/2019	66	0.574	-2.5	-8.5%*	-2.7%
	03/02/2017	64	0.590	-2.3	-6.0%*	-6.3%*
	04/10/2014	61	0.630	-2.0	0.4%	5.2%
	02/20/2012	59	0.599	-2.3	-4.5%	-3.5%
	02/15/2010	57	0.621	-2.1	-1.0%	-1.0%
	10/24/2007	55	0.627	-2.0		

* Indicates significant change

At our facility, the Least Significant Change (LSC) in bone mineral density at the 95% confidence level for the Lumbar Spine is 0.028g/cm², LSC for the Total Hip is 0.027 g/cm² and LSC for Femoral Neck is 0.042 g/cm².

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Rebecca M. Shepherd, MD, FACP
Charles F. Henderson, MD, FACP
Kanchana Herath, MD

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Interpretation:

Osteopenia or low bone mass and fracture risk is increased.

COMPARISON STUDY:

The bone mineral density of the LUMBAR SPINE has significantly INCREASED compared to the previous exam. Statistically significant changes can be seen in response to therapy but false elevation can also be seen with osteoarthritis.

The bone mineral density of the TOTAL HIP has shown NO SIGNIFICANT CHANGE compared to the previous exam.

The bone mineral density of the FEMORAL NECK has shown NO SIGNIFICANT CHANGE compared to the previous exam.

The lumbar spine and total hip regions are the most reliable indicators of showing statistically significant changes.

DISCUSSION:

National Osteoporosis Foundation (NOF) guidelines recommend that FDA-approved medical therapies be considered in postmenopausal women and men age 50 or older with the following factors:

*T-scores between -1.0 and -2.5 at the spine, total hip or femoral neck and a ten-year fracture probability by FRAX of greater than or equal to 3% for hip fracture or greater than or equal to 20% for major osteoporotic fracture.

*T-scores of less than or equal to -2.5 at lumbar spine, total hip or femoral neck.

*High risk of fracture from secondary causes such as glucocorticoids.

If the patient has osteopenia with an elevated FRAX score, pharmacological options for prevention and/or treatment should be considered. Additionally all patients should have an adequate intake of dietary calcium (1000-1200 mg/day) and vitamin D (600-1000 IU daily).

-DXA values may be falsely elevated in patients with degenerative changes, scoliosis and compression deformities.

FOLLOW UP:

Follow up bone density by DXA in 2-5 years depending on initiation of therapy and or new risk factors.

Interpreting physicians are certified by the International Society of Clinical Densitometry (ISCD). Technologists are certified by ISCD or ARRT. If you have any questions, please do not hesitate to call us.

Reported by: 


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Name: **Brown, Alice**
Patient ID: **[REDACTED]**
Age: **68**

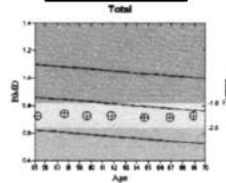
Sex: **Female**
Ethnicity: **White**

Height: **[REDACTED]**
Weight: **[REDACTED]**

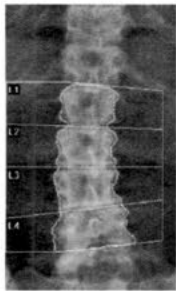


Scan Date: June 02, 2021

Scan ID: **[REDACTED]**

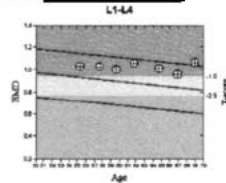


Scan Type: f Left Hip



Scan Date: June 02, 2021

Scan ID: **[REDACTED]**



Scan Type: f Lumbar Spine

Results:

	BMD (g/cm ²)	T-score	PR (%)	Z-score	AM (%)
Left Hip (Neck)	0.602	-2.2	71	-0.5	92
Left Hip (Total)	0.723	-1.8	77	-0.4	94
Spine (Total)	1.066	0.2	102	2.2	129
Total BMD CV 1%					

Summary:

	Classification
Left Hip BMD (Neck)	Osteopenia
Left Hip BMD (Total)	Osteopenia
Spine BMD (Total)	Normal

A spine fracture indicates 5X risk for subsequent spine fracture and 2X risk for subsequent hip fracture.

World Health Organization criteria for BMD impression classify patients as Normal (T-score at or above -1.0), Osteopenia (T-score between -1.0 and -2.5), or Osteoporosis (T-score at or below -2.5).

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