

College Park Imaging

DXA Bone Densitometry Report: Monday, April 09, 2018

MARY SCHOWENGERDT completed a BMD test on 04/09/2018 ordered by **ROBERT SCHUCHARDT, MD**, using the Lunar Prodigy Advance DXA System (software version: 13.60) manufactured by GE Healthcare. The following summarizes the results of our evaluation.

PATIENT BIOGRAPHICAL:

Name: SCHOWENGERDT, MARY J

Patient ID: [REDACTED]

Gender: Female

Indications: [REDACTED]

Birth Date: [REDACTED]

Exam Date: 04/09/2018

Fractures:

Treatments: Vitamin D, Calcium

History of Fracture (Adult),
Osteopenia

DENSITOMETRY RESULTS:

Site	Region	Measured Date	Measured Age	WHO Classification	Young Adult T-score	BMD	%Change vs. Previous	Significant Change (*)
AP Spine	L1-L4	04/09/2018	66.6	Osteoporosis	-2.7	0.865 g/cm ²		
DualFemur	Neck Left	04/09/2018	66.6	Osteopenia	-2.2	0.739 g/cm ²		
DualFemur	Neck Right	04/09/2018	66.6	Osteopenia	-2.1	0.747 g/cm ²		
DualFemur	Total Left	04/09/2018	66.6	Osteopenia	-1.4	0.831 g/cm ²		
DualFemur	Total Right	04/09/2018	66.6	Osteopenia	-1.4	0.833 g/cm ²		

ASSESSMENT:

The BMD measured at AP Spine L1-L4 is 0.865 g/cm² with a T-score of -2.7. This patient is considered osteoporotic according to World Health Organization (WHO) criteria. Fracture risk is high. Pharmacological treatment, if not already prescribed, should be started. A follow up bone density test is recommended in one year to monitor response to therapy.

World Health Organization (WHO) criteria for post-menopausal, Caucasian Women:

- Normal: T-score at or above -1 SD
- Osteopenia: T-score between -1 and -2.5 SD
- Osteoporosis: T-score at or below -2.5 SD

RECOMMENDATIONS:

NOF Guidelines recommend treatment for patients with a T-score of -1.5 and below with risk factors or -2.0 and below without risk factors. Effective therapies are available in the form of bisphosphonates (Fosamax and Actonel), Miacalcin, Evista, and Forteo. All patients should ensure an adequate intake of dietary calcium (1200 mg/d) and vitamin D (400-800 IU daily).

Mild to aggressive therapies are available in the form of Hormone Replacement Therapy (HRT), bisphosphonates, Calcitonin, and SERMS. Additionally, all patients should ensure an adequate intake of dietary calcium (1200 mg/d) and vitamin D (400-800 IU daily).

FOLLOW-UP:

People with diagnosed cases of osteoporosis, osteopenia, or at high risk for fracture should have regular bone mineral density tests. For patients eligible for Medicare, routine testing is allowed once every 2 years. The testing frequency can be increased to one year for patients who have rapidly progressing disease, those who are receiving or discontinuing medical therapy to restore bone mass, or have additional risk factors.

Based on these results, a follow-up exam is recommended in April 2019

ROBERT SCHUCHARDT, MD

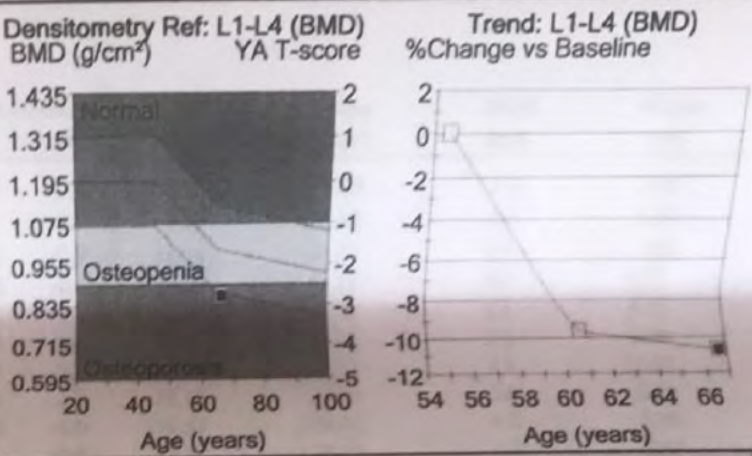
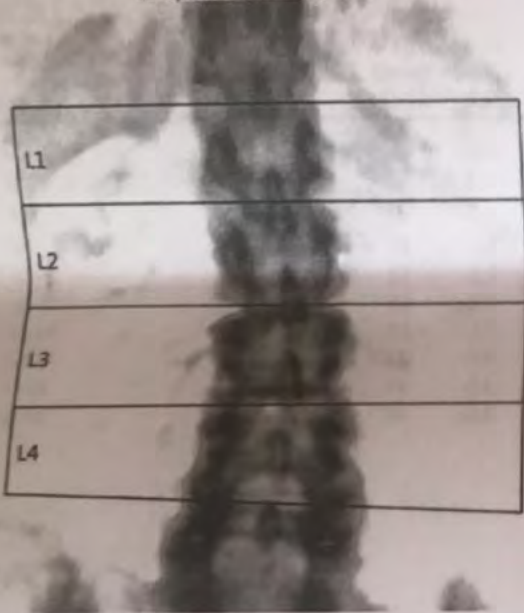
College Park Imaging

[REDACTED]

Patient: SCHOWENGERDT, MARY J
 Birth Date: [REDACTED]
 Height / Weight: [REDACTED]
 Sex / Ethnic: Female White

Patient ID: [REDACTED]
 Referring Physician: ROBERT SCHUCHARDT, MD
 Measured: 04/09/2018 2:02:38 PM (13.60)
 Analyzed: 04/09/2018 2:05:47 PM (13.60)

AP Spine Bone Density Trend



Region	¹ BMD (g/cm ²)	² Young-Adult T-score	³ Age-Matched Z-score
L1	0.769	-3.0	-1.4
L2	0.808	-3.3	-1.7
L3	0.903	-2.5	-0.9
L4	0.936	-2.2	-0.6
L1-L4	0.865	-2.7	-1.1

COMMENTS:

Measured Date	Age (years)	Trend: L1-L4		
		¹ BMD (g/cm ²)	Change vs Previous (g/cm ²)	Change vs Previous (%)
04/09/2018	66.6	0.865	-0.010	-1.1
04/25/2012	60.6	0.875	-0.094 *	-9.7 *
04/11/2006	54.6	0.969	-	-

Image not for diagnosis

Printed: 04/09/2018 2:06:56 PM (13.60) 76:3.00:50.03:12.0 0.00:10.32
 0.60x1.05 17.8% Fat=19.9%
 0.00:0.00 0.00:0.00
 Filename: 15ma6p2shn.dlx
 Scan Mode: Standard;OneScan 37.0 µGy

* - Indicates significant change based on 95% confidence interval.
 1 - Statistically 68% of repeat scans fall within 1SD (± 0.010 g/cm² for AP Spine L1-L4)
 2 - USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) AP Spine Reference Population (v112)
 3 - Matched for Age, Ethnic
 11 - World Health Organization - Definition of Osteoporosis and Osteopenia for Caucasian Women:
 Normal = T-score at or above -1.0 SD; Osteopenia = T-score between -1.0 and -2.5 SD;
 Osteoporosis = T-score at or below -2.5 SD; (WHO definitions only apply when a young healthy Caucasian Women reference database is used to determine T-scores.)

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[REDACTED]

Patient:	SCHOWENGERDT, MARY J	Patient ID:	[REDACTED]
Birth Date:	[REDACTED]	Referring Physician:	ROBERT SCHUCHARDT, MD
Height / Weight:	[REDACTED]	Measured:	04/09/2018 2:02:38 PM (13.60)
Sex / Ethnic:	Female White	Analyzed:	04/09/2018 2:05:47 PM (13.60)

ANCILLARY RESULTS [AP Spine]

Region	¹		²		³		BMC (g)	Area (cm ²)	Width (cm)	Height (cm)
	BMD (g/cm ³)	Young-Adult (%)	T-score	Age-Matched (%)	Z-score					
L1	0.769	68	-3.0	82	-1.4	7.45	9.69	3.3	2.93	
L2	0.808	67	-3.3	80	-1.7	9.23	11.43	3.5	3.27	
L3	0.903	75	-2.5	89	-0.9	11.94	13.22	3.8	3.48	
L4	0.936	78	-2.2	93	-0.6	14.20	15.17	4.8	3.18	
L1-L2	0.790	67	-3.2	81	-1.6	16.68	21.12	3.4	6.20	
L1-L3	0.834	71	-2.8	85	-1.2	28.62	34.34	3.5	9.68	
L1-L4	0.865	73	-2.7	87	-1.1	42.82	49.51	3.8	12.87	
L2-L3	0.859	71	-2.9	85	-1.3	21.17	24.65	3.6	6.76	
L2-L4	0.888	74	-2.6	88	-1.0	35.37	39.82	4.0	9.94	
L3-L4	0.921	76	-2.4	91	-0.8	26.14	28.39	4.3	6.67	

1 - Statistically 68% of repeat scans fall within 1SD (± 0.010 g/cm³ for AP Spine L1-L4)
 2 - USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) AP Spine Reference Population (v112)
 3 - Matched for Age, Ethnic
 Filename: 15mx6p2shn.dfx

College Park Imaging

Patient: SCHOWENGERDT, MARY J
 Birth Date: [REDACTED]
 Height / Weight: [REDACTED]
 Sex / Ethnic: Female White

Patient ID: [REDACTED]
 Referring Physician: ROBERT SCHUCHARDT, MD
 Measured: 04/09/2018 2:04:51 PM (13.60)
 Analyzed: 04/09/2018 2:06:09 PM (13.60)

DualFemur Bone Density Trend

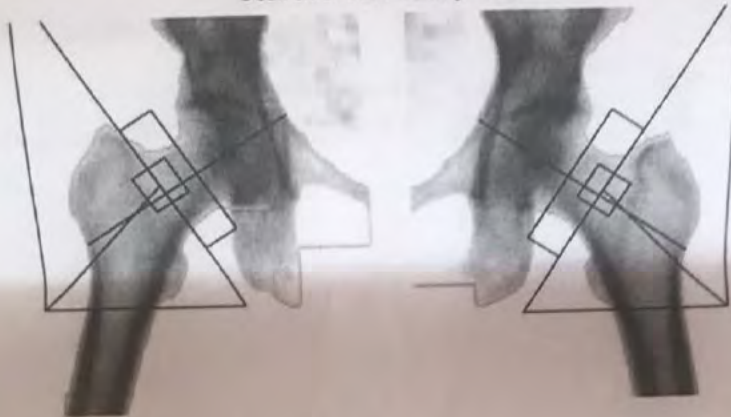
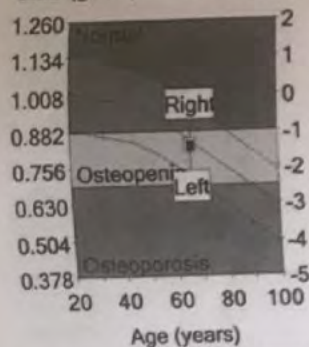
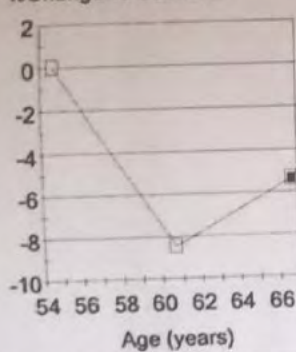


Image not for diagnosis

Densitometry Ref: Total (BMD)
 BMD (g/cm²) YA T-score



Trend: Total Left (BMD)
 %Change vs Baseline



Hip Axis Length Comparison (mm)

Right = -8.2 Left = -5.4

(Right = 96.1 mm) (Mean = 104.3 mm) (Left = 98.9 mm)

Region	BMD ¹ (g/cm ²)	Young-Adult ^{2,7} T-score	Age-Matched ³ Z-score
Neck			
Left	0.739	-2.2	-0.6
Right	0.747	-2.1	-0.6
Mean	0.743	-2.1	-0.6
Difference	0.008	0.1	0.1
Total			
Left	0.831	-1.4	-0.1
Right	0.833	-1.4	-0.1
Mean	0.832	-1.4	-0.1
Difference	0.002	0.0	0.0

Measured Date	Age (years)	BMD ¹ (g/cm ²)	Change vs Previous	
			Previous (g/cm ²)	Previous (%)
04/09/2018	66.6	0.831	0.027	3.4
04/25/2012	60.6	0.804	-0.074 *	-8.4 *
04/11/2006	54.6	0.878	-	-

COMMENTS:

- * - Indicates significant change based on 95% confidence interval.
- 1 - Statistically 68% of repeat scans fall within 1SD (± 0.012 g/cm² for DualFemur Total Left)
- 2 - USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) Femur Reference Population (v112)
- 3 - Matched for Age, Ethnic
- 7 - DualFemur Total T-score difference is 0.0. Asymmetry is None.
- 11 - World Health Organization - Definition of Osteoporosis and Osteopenia for Caucasian Women; Normal = T-score at or above -1.0 SD; Osteopenia = T-score between -1.0 and -2.5 SD; Osteoporosis = T-score at or below -2.5 SD; (WHO definitions only apply when a young healthy Caucasian Women reference database is used to determine T-scores.)

Printed: 04/09/2018 2:06:57 PM (13.60); Filename: 15mxfp2shn.dfx; Right Femur; 15.2%Fat=31.2%; Neck Angle (deg)= 59; Scan Mode: Standard 37.0 μ Gy; Left Femur; 15.9%Fat=31.7%; Neck Angle (deg)= 57; Verify there is sufficient pelvis-shaft separation.; Scan Mode: Standard 37.0 μ Gy

SCHOWENGERDT, MARY J

Patient ID:

Referring Physician:

ROBERT SCHUCHARDT, MD

Measured:

04/09/2018 2:04:51 PM (13.60)

Analyzed:

04/09/2018 2:06:09 PM (13.60)

ANCILLARY RESULTS [DualFemur]

Region	BMD ¹	Young-Adult ^{2,7}		Age-Matched ³		BMC	Area
	(g/cm ²)	(%)	T-score	(%)	Z-score		
Neck Left	0.739	71	-2.2	90	-0.6	3.38	4.58
Neck Right	0.747	72	-2.1	90	-0.6	3.52	4.71
Neck Mean	0.743	72	-2.1	90	-0.6	3.45	4.64
Neck Diff.	0.008	1	0.1	1	0.1	0.14	0.14
Upper Neck Left	0.546	66	-2.3	85	-0.8	1.23	2.26
Upper Neck Right	0.576	70	-2.0	89	-0.6	1.39	2.42
Upper Neck Mean	0.561	68	-2.2	87	-0.7	1.31	2.34
Upper Neck Diff.	0.030	4	0.3	5	0.3	0.16	0.16
Lower Neck Left	0.927	-	-	-	-	2.15	2.32
Lower Neck Right	0.927	-	-	-	-	2.13	2.29
Lower Neck Mean	0.927	-	-	-	-	2.14	2.31
Lower Neck Diff.	0.000	-	-	-	-	0.02	0.02
Wards Left	0.543	60	-2.8	84	-0.8	1.26	2.32
Wards Right	0.542	60	-2.8	84	-0.8	1.34	2.47
Wards Mean	0.542	60	-2.8	84	-0.8	1.30	2.40
Wards Diff.	0.001	0	0.0	0	0.0	0.08	0.14
Troch Left	0.689	81	-1.4	97	-0.2	7.91	11.47
Troch Right	0.684	80	-1.4	96	-0.2	7.25	10.60
Troch Mean	0.687	81	-1.4	97	-0.2	7.58	11.04
Troch Diff.	0.005	-1	0.0	-1	0.0	0.65	0.87
Shaft Left	0.984	-	-	-	-	13.18	13.39
Shaft Right	0.981	-	-	-	-	13.09	13.34
Shaft Mean	0.983	-	-	-	-	13.14	13.37
Shaft Diff.	0.003	-	-	-	-	0.09	0.05
Total Left	0.831	82	-1.4	98	-0.1	24.47	29.44
Total Right	0.833	83	-1.4	98	-0.1	23.86	28.65
Total Mean	0.832	83	-1.4	98	-0.1	24.17	29.05
Total Diff.	0.002	0	0.0	0	0.0	0.61	0.79

1 - Statistically 68% of repeat scans fall within 1SD (± 0.012 g/cm² for DualFemur Total Left)

2 - USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) Femur Reference Population (v112)

3 - Matched for Age, Ethnic

7 - DualFemur Total T-score difference is 0.0. Asymmetry is None.

Filename: 15mra6p2shn.dfx