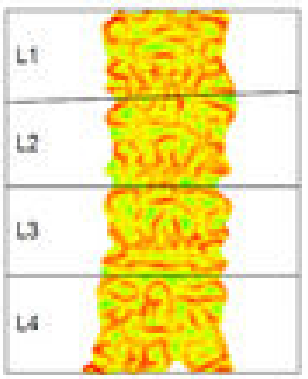
Patient:	Humphrey, Jenny		
Patient ID:	752-99-6574	Date of birth - Age:	10/12/1950 - 65 years
Height - Weight - BMI:	154.7 cm - 63 kg - 26.3 kg/m²	Gender - Ethnicity:	Female - White
Referring physician:	SG02	Acquisition date:	10/04/2016

BONE HEALTH REPORT

1 TBS Mapping

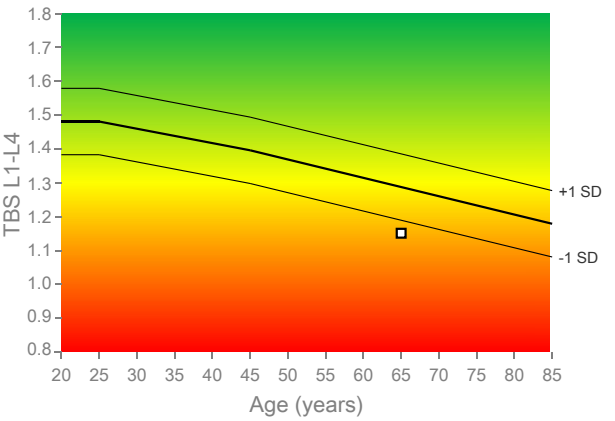


TBS Values
High
Low

Non-diagnostic image

2 TBS Spine Results

TBS L1-L4 = 1.151 - Degraded microarchitecture



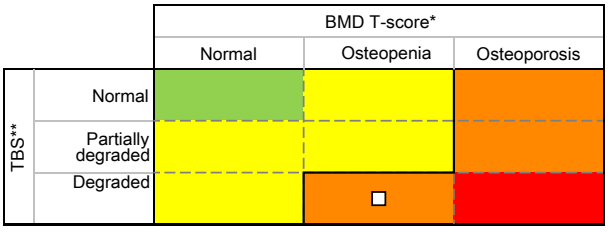
Reference population: USA (NHANES / Medimaps) - White

3 Skeletal Status Assessment

Osteoporosis is a systemic skeletal disease characterized by low bone mass and microarchitectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture.1

The TBS is derived from the texture of the DXA image and has been shown to be related to bone microarchitecture and fracture risk. It provides information independent of BMD.

For purpose of clarity, "Bone Resilience Index" is defined as the combination of BMD T-score and TBS categories. The Bone Resilience Index zones are established based upon level of fracture risk.2



* BMD T-score is the min value of spine, total hip and femoral neck
** Spine TBS L1-L4 Normal microarchitecture > 1.31; Degraded ≤ 1.23

Normal	Moderate	Low	Severely low

Color coded Bone Resilience Index zones based on Fracture Risk2

4 Therapeutic Decision Tools

The FRAX® 10-year probability of fracture:

Type of Fracture	Risk	Risk adjusted for TBS*
Major Osteoporotic	17 %	20 %
Hip	1.9 %	2.6 %

* Validated only for Caucasian and Asian women and men [3]. Refer to local guidelines before using these values.

Reported Risk factors beside BMD: glucocorticoids, rheumatoid arthritis

The BMD T-score:

Bone Site	BMD T-score	BMD T-score adjusted for TBS*
Spine	-1.9	-3.0
Femoral Neck <•	-1.2	-1.8
Total Hip <•	-0.5	-1.0

* Validated for Caucasian women only [4]. The greyed cell is the minimum value. The arrow displayed near the hip bone sites represents the hip side of the exam : <• for left hip, •> for right hip.

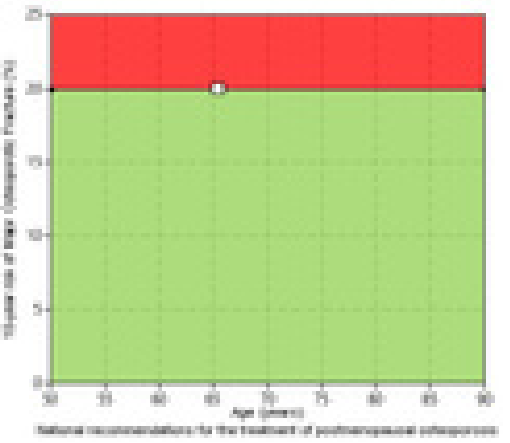
Patient:	Humphrey, Jenny		
Patient ID:	752-99-6574	Date of birth - Age:	10/12/1950 - 65 years
Height - Weight - BMI:	154.7 cm - 63 kg - 26.3 kg/m²	Gender - Ethnicity:	Female - White
Referring physician:	SG02	Acquisition date:	10/04/2016

BONE HEALTH REPORT

5 Detailed Spine Results

Region	TBS	TBS Z-score	BMD (g/cm²)	BMD T-score
L1	1.057	-	0.807	-1.7
L2	1.227	-	0.796	-2.1
L3	1.183	-	0.841	-2.2
L4	1.137	-	0.912	-1.4
L1-L4	1.151	-1.4	0.842	-1.9
L1-L3	1.156	-1.4	0.815	-1.8
L1-L4(L3)	1.141	-1.3	0.843	-1.7
L1-L4(L2)	1.126	-1.3	0.857	-1.8
L2-L4	1.183	-1.5	0.853	-2.1
L1-L2	1.142	-1.3	0.801	-1.6
L1-L3(L2)	1.120	-1.4	0.824	-1.7
L1-L4(L2L3)	1.097	-1.1	0.864	-1.6
L2-L3	1.205	-1.6	0.819	-2.2
L2-L4(L3)	1.182	-1.4	0.859	-2.0
L3-L4	1.160	-1.4	0.879	-2.0

6 FRAX Curve



7 Conclusion

The Lumbar spine TBS is 1.151 which suggests a degraded microarchitecture compared to reference population.

The patient's associated BMD and TBS values suggest a Low resilience to fracture.

Furthermore, the minimum BMD T-score (either adjusted or not for TBS), positions the patient in the Osteoporosis category equivalent.

The patient's FRAX results should be interpreted in regard to the intervention thresholds provided by national medical guidelines.

Final decision regarding diagnostic or therapeutic recommendations should include BMD, TBS, additional clinical risk factors as well as the clinical context of the patient.

8 Notes & References

Date of report generation: 14/09/2023 12:05:26
Date of analysis: 10/04/2016 – TBS iNsight version 3.1.2
DXA: Delphi W #0 – File: PA07410A.p05

1. Consensus Development Conference, Am J Med 94, 646-650 (1994)
2. Adapted from J. Bone Miner. Res. 26, 2762–2769 (2011)
3. Calcif Tissue Int. 96, 500-509 (2015)
4. Adapted from Osteoporos Int. 29, 751-758 (2018)