MEDIMAPS
We understand bone health

TBS Osteo™

TBS Report

Easy interpretation steps

Easy to interpret All-In-One report
(BMD, FRAX®, TBS)

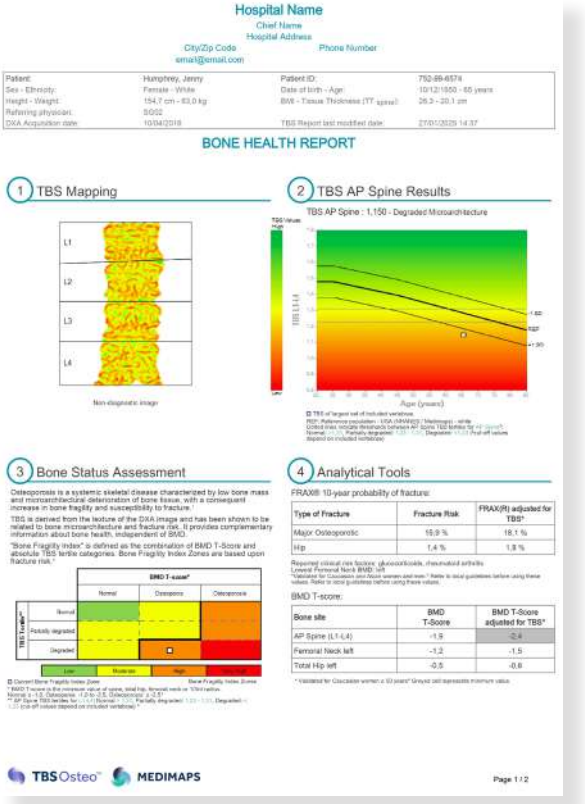
Automatic generated report
with option for customizable
conclusions

Option to print and/or send to
PACS (DICOM SR)

All-in-one report

TBS Osteo creates a comprehensive report combining BMD, clinical risk factors or FRAX®, and TBS score to provide the full picture of a patient's risk of fracture. The software helps generate auto-editable conclusions following medical society guidelines for easy interpretation.

All-In-One Bone Health Report is available for Hologic and GE Healthcare DXA devices*.


Hospital Name
Chief Name
Hospital Address
City/Zip Code Phone Number
email@email.com

BONE HEALTH REPORT

1 TBS Mapping

2 TBS AP Spine Results

3 Bone Status Assessment

4 Analytical Tools

FRAX® 10-year probability of fracture:

Type of Fracture	Fracture Risk	FRAX(R) adjusted for TBS*
Major Osteoporotic	16.9 %	18.1 %
Hip	1.4 %	1.8 %

BMD T-score:

Bone site	BMD T-Score	BMD T-Score adjusted for TBS*
AP Spine (L1-L4)	-1.9	-2.4
Femoral Neck left	-1.2	-1.5
Total Hip left	-0.5	-0.6

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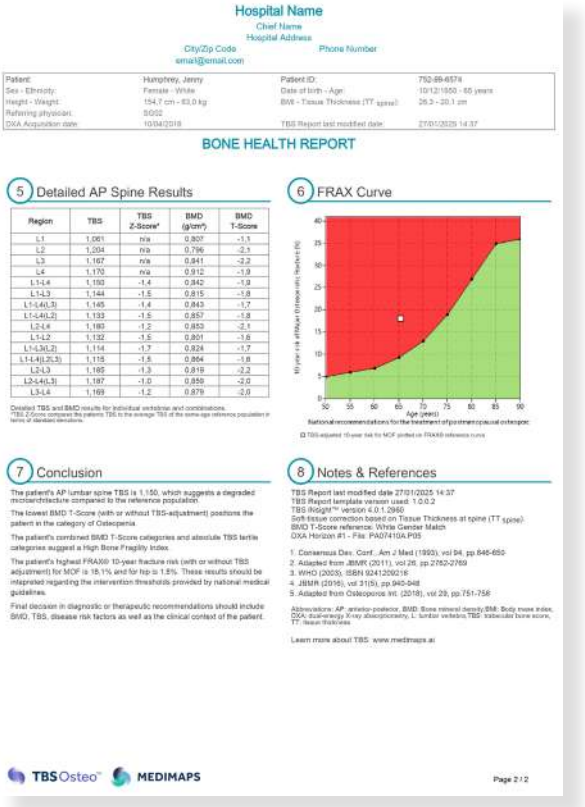
Hospital Name
Chief Name
Hospital Address
City/Zip Code Phone Number
email@email.com

BONE HEALTH REPORT

5 Detailed AP Spine Results

Region	TBS	TBS Z-Score*	BMD (g/cm²)	BMD T-Score
L1	1,061	n/a	0,807	-1,1
L2	1,204	n/a	0,796	-2,1
L3	1,167	n/a	0,841	-2,2
L4	1,170	n/a	0,912	-1,9
L1-L4	1,193	-1,4	0,842	-1,9
L1-L3	1,144	-1,5	0,815	-1,8
L1-L4(L3)	1,145	-1,4	0,843	-1,7
L1-L4(L2)	1,133	-1,5	0,857	-1,8
L2-L4	1,180	-1,2	0,853	-2,1
L1-L2	1,132	-1,5	0,801	-1,6
L1-L3(L2)	1,114	-1,7	0,824	-1,7
L1-L4(L2L3)	1,115	-1,5	0,864	-1,8
L2-L3	1,185	-1,3	0,819	-2,2
L2-L4(L3)	1,187	-1,0	0,859	-2,0
L3-L4	1,169	-1,2	0,879	-2,0

6 FRAX Curve

7 Conclusion

8 Notes & References

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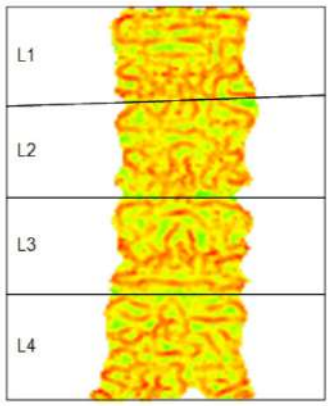
*Contact your local distributor or sales representative to learn more about the DXA versions that support the All-in-one Report.



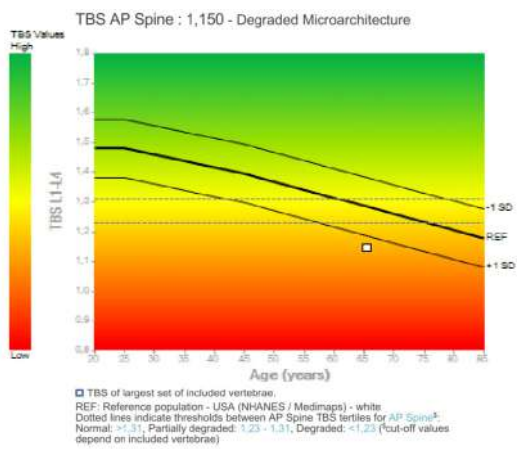
Non-diagnostic image

01 | TBS mapping

Description: AP lumbar spine image. The TBS (trabecular bone score) mapping color scale is designed to highlight the contours of local TBS.

Benefit: Supports patient positioning and bone mask verification for accurate computation, especially for patient monitoring.

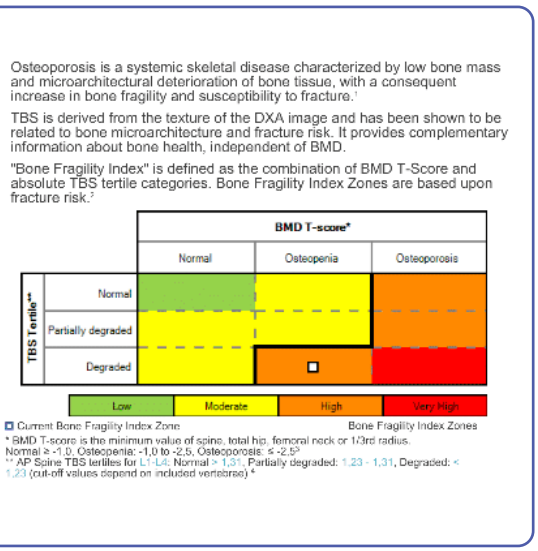
- **Red:** low TBS value
- **Green:** high TBS value



02 | TBS AP spine results

Description: AP spine TBS is plotted on a reference graph to reflect the bone microarchitecture of the patient in the context of a selected reference population.

Benefit: Immediately identify the patients microarchitecture status compared to a reference population (REF line).



03 | Bone status assessment

Description: Table combining BMD T-Score and TBS (microarchitecture classification) to determine the Bone Fragility Index and assess fracture risk.

Benefit: The combination of BMD and TBS, provides a more comprehensive understanding of the patient's bone health status. This combined evaluation results in a bone fragility classification for the patient, ranging from low to very high.

FRAX® 10-year probability of fracture:

Type of Fracture	Fracture Risk	FRAX(R) adjusted for TBS*
Major Osteoporotic	15,9 %	18,1 %
Hip	1,4 %	1,8 %

Reported clinical risk factors: glucocorticoids, rheumatoid arthritis
Lowest Femoral Neck BMD: left
*Validated for Caucasian and Asian women and men.[1] Refer to local guidelines before using these values. Refer to local guidelines before using these values.

BMD T-score:

Bone site	BMD T-Score	BMD T-Score adjusted for TBS*
AP Spine (L1-L4)	-1,9	-2,4
Femoral Neck left	-1,2	-1,5
Total Hip left	-0,5	-0,8

* Validated for Caucasian women ≥ 50 years[1] Greyed cell represents minimum value.

04 | Analytical tools

Description: FRAX® adjusted for TBS, BMD T-Score and BMD T-Score adjusted for TBS.

Benefit TABLE 1: Refines fracture prediction. FRAX® adjusted for TBS as a therapeutic decision tool.

Benefit TABLE 2: Lowest BMD T-Score adjusted for TBS helps in diagnosis of osteoporosis and deciding on intervention thresholds.

Region	TBS	TBS Z-Score*	BMD (g/cm²)	BMD T-Score
L1	1,061	n/a	0,807	-1,1
L2	1,204	n/a	0,796	-2,1
L3	1,167	n/a	0,841	-2,2
L4	1,170	n/a	0,912	-1,9
L1-L4	1,150	-1,4	0,842	-1,9
L1-L3	1,144	-1,5	0,815	-1,8
L1-L4(L3)	1,145	-1,4	0,843	-1,7
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L2-L4	1,180	-1,2	0,853	-2,1
L1-L2	1,132	-1,5	0,801	-1,6
L1-L3(L2)	1,114	-1,7	0,824	-1,7
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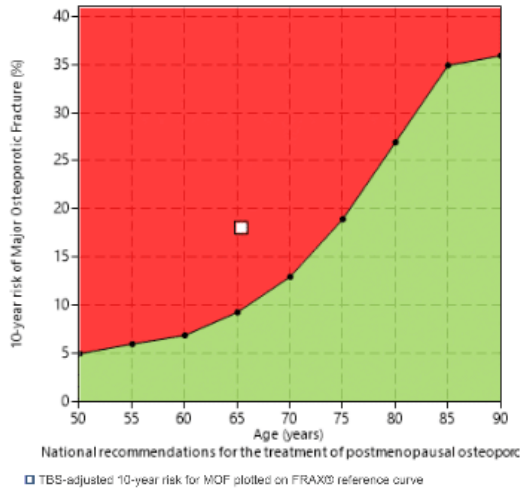
L2-L4(L3)	1,187	-1,0	0,859	-2,0
L3-L4	1,169	-1,2	0,879	-2,0

Detailed TBS and BMD results for individual vertebrae and combinations.
*TBS Z-Score compares the patients TBS to the average TBS of the same-age reference population in terms of standard deviations.

05 | Detailed AP spine results

Description: Comprehensive and detailed listing table of TBS and BMD results of individual vertebra and combinations.

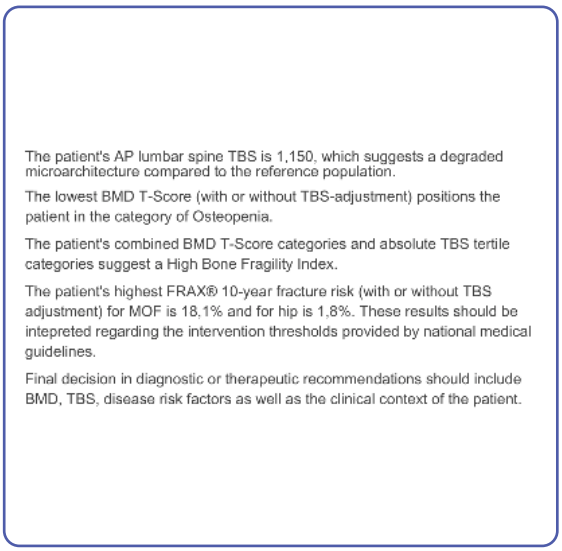
Benefit: Visualize differences between individual vertebrae. This can be useful in cases of vertebral exclusion.



06 | FRAX® curve

Description: FRAX® reference curve to plot FRAX® adjusted for TBS. The displayed plot can be adapted to reflect local guidelines.

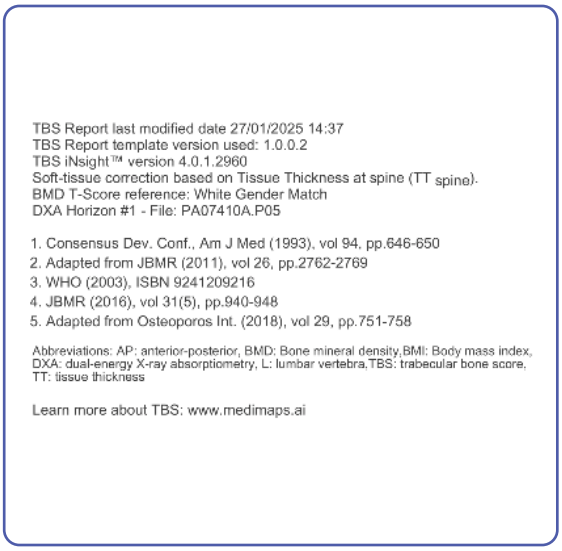
Benefit: Automatically plotted FRAX®, adjusted for TBS, provides patient classification according to local guidelines, aiding in making informed therapeutic treatment decisions (personalized treatment).



07 | Conclusion

Description: Automatically pre-filled and fully editable report.

Benefit: Automation saves time in reporting outcomes while giving flexibility to edit.



08 | Notes & references

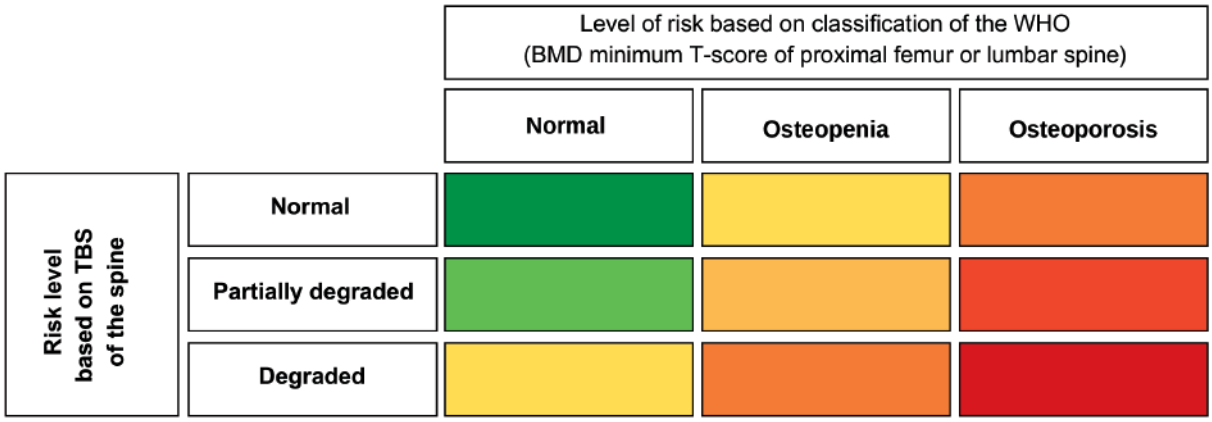
Description: This section displays report metadata and literature references.

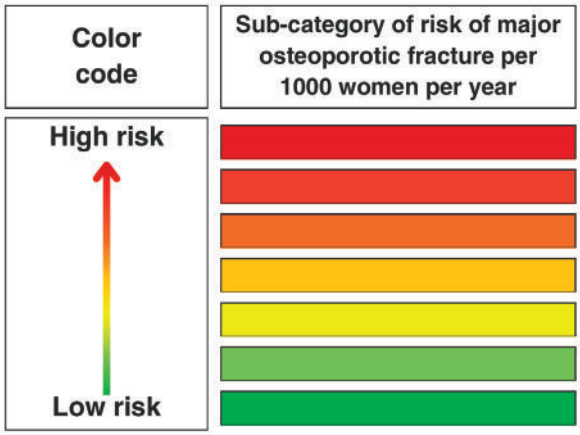
Benefit: Clear report traceability.

Interpretation TBS values and bone density use in patient management

Trabecular Bone Score (TBS), together with the BMD and additional clinical risk factors is an aid for patient management. All diagnosis and treatment decisions require clinical judgement and consideration of the clinical context of the patient.

Risk stratification of TBS and BMD enhances the accuracy of fracture risk assessment, particularly in osteopenic patients and patients with secondary osteoporosis[1]. The following table presents the level of fracture risk expressed as the number of major osteoporotic fractures per 1000 women/ year (based on a study conducted on 30,000 women)[2] .





To learn more
register to the e-learning
of TBS Osteo

1. Shevroja, E., Reginster, JY., Lamy, O. et al. Update on the clinical use of trabecular bone score (TBS) in the management of osteoporosis: results of an expert group meeting organized by the European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (ESCEO), and the International Osteoporosis Foundation (IOF) under the auspices of WHO Collaborating Center for Epidemiology of Musculoskeletal Health and Aging. Osteoporosis Int 34, 1501–1529 (2023)
2. Adapted from Didier Hans et al. (2014). Bone microarchitecture assessed by TBS predicts osteoporotic fractures independent of bone density: the Manitoba study. Journal of Bone and Mineral Research. DOI:10.1002/jbmr 499

MEDIMAPS

We understand bone health

Founded by medical practitioners and clinical researchers, Medimaps combines Swiss innovation with a global presence to lead in bone health management. We provide healthcare professionals worldwide with advanced AI-driven software that enables comprehensive bone microarchitecture assessment.

Our passion for musculoskeletal health is underpinned by scientific knowledge, collaborations with world-class academics, clinicians, industry partners, and direct patient engagement. The science behind our cutting-edge imaging applications and clinical evidence forms the core of our company's DNA.

swiss made software

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