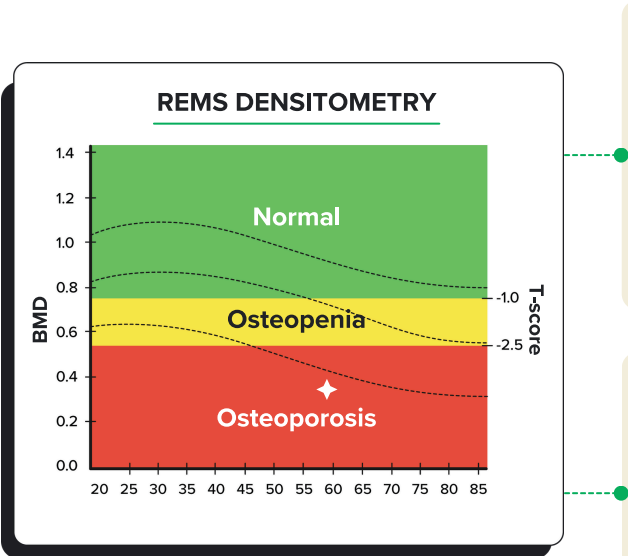


# UNDERSTANDING YOUR REMS REPORT



## PART 1 YOUR REMS DENSITOMETRY: BONE MINERAL DENSITY AND T-SCORE

REMS evaluates your Bone Mineral Density (BMD), much like DXA. The T-score identifies your bone density as Normal (T-score > -1.0, green), Low (osteopenia) (-1.0 to -2.5, yellow), or Osteoporotic ( $\leq -2.5$ , red). The graph shows your T-score, age, and BMD compared to averages for people with high, average, or low bone density (black lines going across the graph).



### BONE MINERAL DENSITY

BMD measures the mineral content, primarily calcium, in your bone, expressed in grams per cm<sup>2</sup> (g/cm<sup>2</sup>). While it's a traditional indicator of bone strength, it doesn't tell the whole story. Think of it like comparing a piece of chalk to a pencil: both may feel solid, but drop them, and the chalk shatters because it's brittle, while the pencil remains intact thanks to its flexibility. Bone strength is more than density—it's about quality and resilience too.

### T-SCORE

Your T-score compares your BMD to that of a healthy 30-year-old white woman, using statistical models.

- T-scores are mainly used for postmenopausal women and men over 50.
- Z-scores compare your BMD to people of your same age, gender, and ethnicity and are used for younger patients.

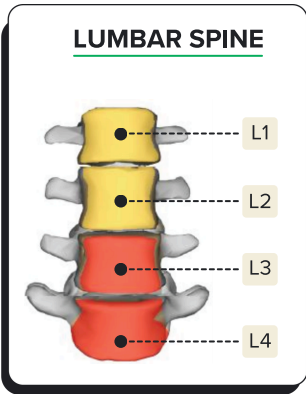
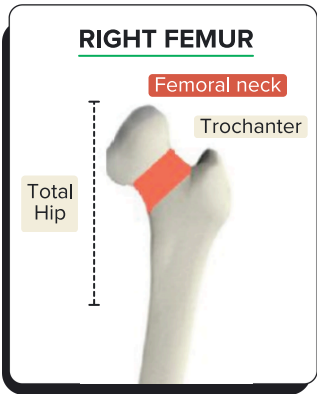
### REMS vs DXA: HOW I COMPARE MY RESULTS?

The best comparison is always DXA to DXA and REMS to REMS, because the methods are different. Both REMS and DXA, measure BMD and provide T-scores. Studies have shown they produce similar results when DXA is done correctly. However, DXA reports often have errors—studies reveal 90% of DXA reports have errors related to patient positioning, operator error, machine variation, and patient conditions like scoliosis, osteoarthritis, or metal implants.

REMS delivers consistent, repeatable, and highly accurate results and avoids common DXA issues, such as significant discrepancies in T-scores between the hips and spine (discordance).

The REMS scan report features detailed bone graphics, highlighting the areas analyzed during the exam. Results are color-coded based on T-scores for easy interpretation. For the spine, four lumbar vertebrae are scanned, with valid data from at least two required for an accurate report. Gray-shaded vertebrae indicate unusable data, often caused by abdominal gas interference.

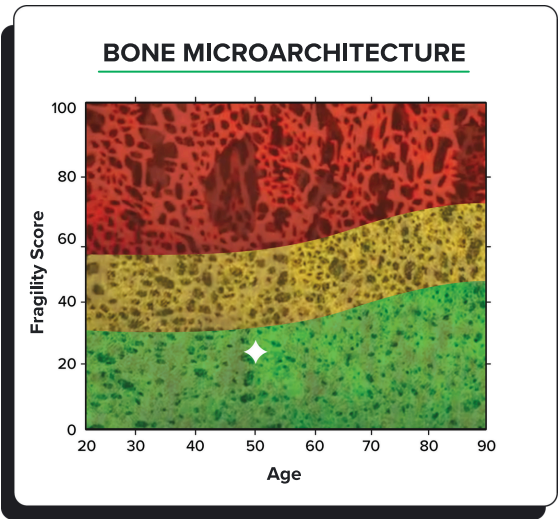
The report presents results in tables, showing T-scores BMD (g/cm<sup>2</sup>) for specific bone regions. Each vertebra has a T-score.



● Osteoporosis    ● Osteopenia    ● Normal Bone

## PART 2 YOUR FRAGILITY SCORE AND BONE QUALITY

The **Fragility Score (FS)** evaluates bone microarchitecture on a 0-100 scale, offering insights independent from BMD. A lower FS score (green) indicates strong, resilient bones, while a higher score (red) signals weaker bone structure and an elevated risk of fractures over the next five years.



### THE KEY IMPORTANCE OF FRAGILITY SCORE

Bone quality measures the integrity and strength of your bone's internal structure. Dense, uniform bone architecture indicates strong, resilient bones, while degraded quality increases fracture risk. REMS can detect changes in bone quality in as little as 6 months, making it an ideal tool for monitoring progress from lifestyle changes or treatments.

### Bone MICROARCHITECTURE

● Degraded    ● Reduced    ● Normal

## PART 3 YOUR FRACTURE RISK IN THE NEXT FIVE YEARS

The risk of fracture combines your T-score and Fragility Score. The population is divided into 7 risk classes from the least likely to fracture (R1 shown in green) to the most likely to fracture (R7 shown in dark red). The results are shown on a grid with green, yellow, or red zones. Two or three groups of risk are included are each intersection of T-score color vertically with Fragility Score color horizontally.

### Combined Matrix of REMS BMD and Fragility Score

		T-Score		
		Normal	Osteopenia	Osteoporosis
Fragility Score	Normal	R1,R2	R2-R4	R4,R5
	Decreased	R2,R3	R3-R5	R5,R6
	Low	R3,R4	R4-R6	R6,R7

Your exact risk group is identified based on your specific T-score and Fragility Score and it is shown with a bold black frame. For each group, a % range of fracture risk is shown with its numerical value. This can be used to easily understand your 5-year risk of fracture for that body site and track its change over time, scan after scan.

<b>R4</b>	<b>[0.8-1.5]</b>	% chance of fracture in the next 5 years for R4
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Note: Fracture Risk for hip and spine are different and shown on the report

### MIND YOUR FRACTURE RISK!

Even a low risk now only covers one bone and one 5-year period. Over time, your cumulative risk increases. Aim to lower your risk by improving your T-score and Fragility Score. Ask us about our Bone Health Blueprint program to support your journey with REMS advanced bone scans paired with trusted, evidence-based protocols by The OsteoCollective.

## ECHOGRAPHIC IMAGES AND BODY COMPOSITION

Your REMS report also includes ultrasound images of your scanned bones. While they don't provide diagnostic information, they ensure the scan was performed accurately. Your spine report additionally includes body composition data.



Learn More!

For a deeper look at the interpretation of a REMS report, check out Dr. Kim Zambito's video.

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