

T-Scores and Z-Scores □ □

The T-score is the number of standard deviations by which a person's BMD differs from that of healthy young U.S. adults of the same sex, and is reported for patients 20 and older. In general, the lower the T-score, the more fragile the person's bones. The T-score is therefore a rough indication of the need for treatment in adults. In children and adolescents, the Z-score serves an analogous function (see below). The exact T-score at which to treat an adult depends upon the adult, the treatment, and the physician, making it unwise to generalize. If the T-score is less than minus 1.5, our reports describe the adult's bone mass as borderline low, and advise follow-up measurements or treatment. If the T-score is less than minus 2.0, our reports describe the adult's bone mass as low, and say treatment is usually indicated.

A T-score of minus 1.5 or minus 2.0 corresponds, respectively, to the 7th or the 3rd percentile for healthy young U.S. adults. The Z-score is the number of standard deviations by which a person's BMD differs from that of U.S. residents of the same age and sex who have no fragility fractures. It is reported for all ages. A Z-score less than minus 2.0 is below the 95 percent confidence limits for the person's age and sex, indicating exaggerated or premature bone loss, or impaired skeletal development. When the cause of an extreme Z-score is not apparent, the medical history should be repeated. If the cause is then still unclear, additional diagnostic studies or referral to an osteoporosis specialist are indicated. In adults, the Z-score is thus a rough index of the need for extra diagnostic studies, whereas the T-score is a rough index of the need for treatment. In children and adolescents, the Z-score serves both functions. □ □