

## Using the Template:

These are suggested guidelines for an adult DXA report in the United States. This template should be altered based on clinical judgment, Federal, state or local regulations, local facility preferences and technological approaches. Additionally, it may be segmented into separate reports (VFA, FFI) for compliance with local and/or administrative requirements. Blank areas with underlining indicate where something needs to be inserted, in some cases, prompts are placed in the blank areas. The template reflects the ISCD Official Positions, please refer to these for questions regarding DXA indications, diagnosis, reporting and fracture risk assessment ([iscd.org/learn/official-positions/](http://iscd.org/learn/official-positions/)).

## Excerpts from Official Positions:

Do not report fewer than 2 vertebral bodies.

Report T-score in postmenopausal women and men age  $\geq 50$  years. Report Z-score in premenopausal women and men  $<$  age 50 years.

- Apply WHO diagnostic criteria to lowest reported T-score for diagnosis; The WHO diagnostic criteria may be applied in women in the menopausal transition.
- When both hips have been scanned, the lowest T-score (or Z-score) of the right or left femoral neck or total hip should be used for diagnostic classification, but not the mean T-score (or Z-score).
- A Z-score of -2.0 or lower is defined as “below the expected range for age” and a Z-score above -2.0 is “within the expected range for age.”

Assess change using difference in  $g/cm^2$ , report stable BMD to values less than facility LSC. Do not apply LSC to scans acquired on different instruments that are not cross-calibrated.

- When both hips have been scanned on repeat tests, mean bilateral total hip BMD should be used for monitoring.

When TBS is available:

- is appropriate in adults aged  $\geq 40$  years.
- should be performed only within BMI range recommended by the manufacturer and can be used regardless of sex, race/ethnicity and prior or current osteoporosis treatment.
- L1-L4 vertebral levels, without exclusions, should be used for TBS measurement and to calculate TBS-adjusted FRAX probabilities even in the presence of moderate degenerative changes and chronic lumbar compression fractures. It is recommended not to report TBS if there is severe structural or pathological artifact (e.g., vertebra plana, laminectomy, hardware, metastatic lesions).
- When available, use the TBS value for adjusting and reporting fracture risk.
- In routine clinical practice, monitoring and reporting TBS change is not recommended.

In the United States, insert FRAX fracture risk estimates in patients with osteopenia in accordance with the ISCD/NOF recommendations including the positive risk factors used in the calculation. Consider adding a general/ qualitative fracture risk statement if a quantitative risk method like FRAX is not utilized.

If another fracture risk calculator is used (Garvan, QFracture, etc.) then identify the fracture risk calculator and positive risk factors used in the calculation

**DXA Report: Optional Items:**

Recommendation for further non-BMD testing, such as X-ray, magnetic resonance imaging, computed tomography, etc.

Recommendations for pharmacological and non-pharmacological interventions.

Specific recommendations for evaluation of secondary osteoporosis.

Comprehensive definition of WHO criteria for diagnosis in postmenopausal females and in men age 50 and over.



## US ADULT DXA SAMPLE REPORT

### Dual-Energy X-ray Absorptiometry (DXA)

A DXA scan was performed on (date) \_\_\_\_\_ using a (manufacturer) \_\_\_\_\_ (model) \_\_\_\_\_ densitometer.

### Indication for Study:

### Comparison Study: (select from the following)

- No prior study for comparison
- Current study compared to that of (DATE(S)) – If different dates for various sites; specify
- Prior study acquired on a non-cross calibrated scanner and cannot be used for quantitative comparison

### Results:

#### **Lumbar Spine**

(Comment on technical limitations if appropriate) The BMD measured at (L1-L4, L1-L3- specify levels) \_\_\_\_\_ is \_\_\_\_\_ g/cm<sup>2</sup> with a corresponding T-score of (and/or Z-score as appropriate) \_\_\_\_\_. Compared to prior there is a difference of \_\_\_\_\_ g/cm<sup>2</sup> (XX%), which is (stable, a significant increase, a significant decrease) in BMD.

#### **Femoral Neck:**

(Comment on technical limitations if appropriate) The BMD measured at the lowest femoral neck is \_\_\_\_\_ g/cm<sup>2</sup> with a corresponding T-score of (and/or Z-score as appropriate) \_\_\_\_\_.

#### **Total Hip**

(Comment on technical limitations if appropriate) The BMD measured at the lowest femoral neck is \_\_\_\_\_ g/cm<sup>2</sup> with a corresponding T-score of (and/or Z-score as appropriate) \_\_\_\_\_. Compared to prior (use mean total hip when available) there is a difference of \_\_\_\_\_ g/cm<sup>2</sup> (XX%), which is (stable, a significant increase, a significant decrease) in BMD.

#### **1/3 Radius**

(Comment on technical limitations if appropriate) The BMD measured at the lowest femoral neck is \_\_\_\_\_ g/cm<sup>2</sup> with a corresponding T-score of (and/or Z-score as appropriate) \_\_\_\_\_.

### **Vertebral Fracture Assessment**

The image identifies (list visible vertebrae i.e. T4-L4) No moderate or severe fractures are recognized. (list level and grade of recognized moderate or severe fractures)

**Fracture Risk:** The estimated 10-year risk for a hip fracture is \_\_\_\_\_% and for a major osteoporotic fracture is \_\_\_\_\_. This fracture risk estimate was calculated using (List fracture risk calculator used such as FRAX) version \_\_ and the following risk factors were selected. (Comment if TBS adjusted FRAX is reported)

**Impression:**

Based on lowest T-score, the diagnosis meets WHO criteria for \_\_\_\_\_

Stable, significant increase or decrease in BMD

Moderate/Severe vertebral fracture at \_\_\_\_\_(specify levels)

At this facility, the least significant change in BMD with 95% confidence is \_\_\_\_\_g/cm<sup>2</sup> at the L1-4 spine, and \_\_\_\_\_g/cm<sup>2</sup> at the total hip, \_\_\_\_\_g/cm<sup>2</sup>

**Follow-up DXA:**

Follow-up exam is recommended as long as a valid comparison is available, and the precise timing depends on particular clinical circumstances.

**Full-Length Femur Imaging**

**Indication:**

**Comparison Study: (select from the following)**

- No prior study for comparison
- Current study compared to that of (DATE(S))

**Findings:**

Focal lateral cortical thickening: \_\_\_\_\_(Definite, Possible, Absent)

Transverse lucent line: \_\_\_\_\_(Present, Absent)

Diffuse cortical thickening: \_\_\_\_\_(Present, Absent)

**Impression:**

*Based on finding, use table below to list (Non-diagnostic, Low likelihood, Moderate likelihood, High likelihood) of fracture.*

**Recommendation:**

*Based on impression, use table below to list recommendation.*

<b>Findings</b>	<b>Impression</b>	<b>Recommendation</b>
Inadequate imaging	Non-diagnostic	Consider dedicated radiographs to evaluate patient if necessary.
Isolated diffuse cortical thickening or no findings	LOW likelihood	Clinical correlation to decide if dedicated radiographs are necessary.
Possible focal lateral cortical thickening without a transverse lucent line	MODERATE likelihood	Clinical correlation and dedicated radiographs for clarification.
Definite focal lateral cortical thickening and a transverse lucent line	HIGH likelihood	Urgent consultation and further imaging are recommended.