



US ADULT DXA SAMPLE REPORT

These are suggested guidelines for an adult DXA report in the United States. This template should be altered based on clinical judgment, and any Federal, state or local regulations, and local facility preferences. The order of the report can be tailored to the institution. Certain portions of the template, such as patient name and referring physician, may already be present in the electronic medical record.

Dual-Energy X-ray Absorptiometry (DXA)

A DXA scan was performed on (date) _____ using a ____ (make/model) _____ densitometer.

Impression:

Based on BMD diagnosis is consistent with _____ (based on WHO criteria)

Indication(s):

Technical Quality:

Clinical History:

Results:

Lumbar Spine

The BMD measured in the _ (L1-L4, L1-L3- specify levels) _____ region is _____ g/cm².

T-score (and/or Z-score as appropriate) = _____

Femoral Neck

The BMD measured at the left/right femoral neck is _____ g/cm².

T-score (and/or Z-score as appropriate) = _____

Total Hip

The BMD measured at the left/right total proximal femur is _____ g/cm².

T-score (and/or Z-score as appropriate) = _____

1/3 Radius

The BMD measured at the left/right one-third radius is _____ g/cm².

T-score (and/or Z-score as appropriate) = _____

Interval Change: (if a follow-up study)

Comment [1]: Note: Blank areas with underlining indicate where something needs to be inserted related to the patient data or information. In some cases prompts are placed in the blank areas.
This template follows ISCD Official Positions: <http://www.iscd.org/official-positions/2013-iscd-official-positions-adult/> and <http://www.iscd.org/official-positions/2010-official-positions-iscd-iof-frax/>.

Comment [2]: Insert date of exam and manufacturer and model of densitometer.

Comment [3]: For postmenopausal women or men age 50+, choose normal, osteopenia or osteoporosis. Use only one diagnosis based upon BMD at the lowest valid site.

For children, adolescents, premenopausal women and men age less than 50, choose: within the expected range for age when Z-score is better than -2.0 and or below the expected range for age when the Z-score is ≤ -2.0 . (2103 ISCD Consensus Statement)

Comment [4]: Specify indication for test. (As an example the CMS indication may be inserted here, check on your local carrier)

Comment [5]: Statement regarding technical quality, artifacts, and reason(s) for exclusion of vertebral bodies and/or other skeletal sites.

Comment [6]: Include name, age (date of birth), gender and race and referring physician. Other clinical history such as steroid use, prior fragility fracture, current osteoporosis treatment, etc. may be included here.

Comment [7]: Specify region name, e.g., L1-L4, L1-L3, etc. In the comments section, please specify why vertebral levels are omitted.

Comment [8]: Report T-score in postmenopausal women and men age 50+. Report Z-score in premenopausal women and men < age 50.

Today's examination is compared to the technically similar prior study of the (site) _____. In the interim, there has been no change OR a significant increase/decrease _____, of _____ g/cm², _____ % at the _____ (skeletal site.)

Comment [9]: Insert date of prior exam.

At this facility, the least significant change in BMD with 95% confidence is _____ g/cm² at the L1-4 spine, and _____ g/cm² at the total hip, _____ g/cm² and _____ at the femoral neck and _____ g/cm² at the 1/3 radius.

Comment [10]: Insert g/cm² and % change only if a significant increase or decrease has occurred and insert the skeletal site at which the change occurred. If the change in BMD is not a significant change based on the precision error and LSC, these values should not be reported. Duplicate this paragraph for the sites where interval change is reported.

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 FRAX version _____ and _____ as additional clinical risk factors for fracture. (if FRAX is applicable)

Comment [11]: Insert facility specific LSC values in g/cm² at these sites.

Secondary causes of bone loss should be evaluated if clinically indicated since the etiology of low BMD cannot be determined by BMD measurement alone.

Comment [12]: In the United States, insert FRAX fracture risk estimates in patients with osteopenia in accordance with the ISCD/NOF recommendations. Consider adding a general/qualitative fracture risk statement if a quantitative risk method like FRAX is not utilized. The ISCD FRAX implementation guide can be accessed at:

<http://www.iscd.org/resources/fracture-risk-models/>

The ISCD FRAX Official Positions can be accessed at: <http://www.iscd.org/official-positions/2010-official-positions-iscd-iof-frax/>

Treatment Recommendations and Additional Comments:

Follow-up DXA:

Consider repeating this study in _____ years or as clinically indicated to assess bone density change or response to treatment. Note that Medicare will generally not allow a repeat study sooner than 2 years unless medically necessary.

Comment [13]: Insert the FRAX version and specify which clinical factors were included in the FRAX calculator.

NOTE: If FRAX is not used; insert a sentence which describes fracture risk, e.g., This patient's BMD is consistent with osteoporosis and is at increased fracture risk which, according to NOF guidelines, would merit treatment.

Comment [14]: 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.
Other optional statements follow as an appendix

Comment [15]: Insert rescanning interval if desired

Appendix: (Examples of comment statements to be inserted as appropriate- not an exhaustive list)

Note 1:

WHO classification: The T-score compares the patient's BMD to the average BMD of a young adult. The criteria below are from the World Health Organization:

Normal: T-score -1.0 or above

Osteopenia/low bone mass: T-score -1.1 to < -2.5

Osteoporosis: T-score -2.5 or lower

Severe or established osteoporosis: T-score -2.5 or lower plus fragility fracture

Note 2:

According to the International Society for Clinical Densitometry's 2013 consensus conference:

In women prior to menopause and men less than age 50:

- Z-scores, not T-scores are preferred. This is particularly important in children.
- 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.'
- The WHO diagnostic criteria may be applied in women in the menopausal transition.
- Osteoporosis cannot be diagnosed in men under age 50 on the basis of BMD alone.

Note 3:

Approaches to reduce osteoporosis-related fracture risk include optimizing calcium and vitamin D status and fall-prevention measures. The National Osteoporosis Foundation treatment guidelines

(<http://nof.org/files/nof/public/content/resource/913/files/580.pdf>) recommend:

- Initiate pharmacologic treatment in those with hip or vertebral (clinical or asymptomatic)
- Initiate therapy in those with T-scores ≤ -2.5 at the femoral neck, total hip or lumbar spine by DXA, after appropriate evaluation
- Initiate treatment in postmenopausal women and men age 50 and older with low bone mass (T-score between -1.0 and -2.5, osteopenia) at the femoral neck, total hip or lumbar spine by DXA and a 10-year hip fracture probability $\geq 3\%$ or a 10-year major osteoporosis-related fracture probability $\geq 20\%$ based on the U.S.-adapted WHO absolute fracture risk model (FRAX®; www.NOF.org and www.shef.ac.uk/FRAX)

All treatment decisions require clinical judgment and consideration of individual factors including patient preferences, comorbidities, prior drug use, risk factors not captured in the FRAX model (e.g. sarcopenia, falls, vitamin D deficiency, increased bone turnover, interval significant decline in bone density) and possible under or over estimation of fracture risk by FRAX.

Comment [16]: It may be appropriate to insert comments which incorporate other statements from the 2013 ISCD Official Positions or the 2010 FRAX positions. Data from other manuscripts and guidelines may be inserted

Other screening, diagnosis and treatment guidelines may be considered for inclusion depending on the clinical situation:

- The American College of Rheumatology
guidelines for patients receiving glucocorticoid therapy:
http://www.rheumatology.org/practice/clinical/guidelines/ACR_2010_GIOP_Recomm_Clinicians_Guide.pdf
- AACE-<https://www.aace.com/files/osteoguidelines-2010.pdf>
- AHRQ -
<http://www.guideline.gov/content.aspx?id=34270>
- Institute for Clinical Systems
Improvementhttps://www.icsi.org/guidelines__more/catalog_guidelines_and_more/catalog_guidelines/catalog_musculoskeletal_guidelines/osteoporosis/
- American Family
Physician<http://www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=20>
- American College of Physicians-
http://www.acponline.org/clinical_information/guidelines/guidelines/
- American College of Obstetrics and Gynecology=
http://www.acog.org/About_ACOG/News_Room/News_Releases/2012/Osteoporosis_Guidelines_Issued
- NAMS<http://www.menopause.org/docs/default-document-library/psosteo10.pdf?sfvrsn=2>
- American College of Preventive Medicine -
<http://www.acpm.org/?WomenOsteoClinRef>
- USPSTF<http://www.uspreventiveservicestaskforce.org/3rduspstf/osteoporosis/osteorr.pdf>