

( )

\*

\*\*

Archive of SID

**BMD**

**DXA**

**BMD**

(L2-L4)

**DXA**

**WHR**

**D**

+ / )

/ ( + / )

(P < / )

/ (

(P < / )

< / )

(**BMI**)

(P

\*

BMD : ( )

/

WHO

( T Score <= / )

:

( Sever Osteoporosis )

Established Osteoporosis )

(

BMD

(.)

/

(.)

/

/

BMD

(.)

( BMD)

BMD

%

BMD

(DXA) X

% (USPSTF)

(.)

(SD)

%

%

T – Score

(.)

T– Score

(.)

( )

( ) %

BMD :

( T Score )

BMD : ( )

T )

/

( / Score

---

DXA

D

D3

DXA

( )

( )

D

Archive of SID

...

/	/	( )
/	/	(kg/m2)
/	/	
/	/	( )
/	/	
	( / )*	
	( / )*	

( T2 T4) ( )  
 Osteocore II  
 DXA (Dual Energy X-Ray Absorptiometry )  
 MEDILINK™  
 X

SPSS(Ver. 9)  
 D  
 kg/m2 (BMI)  
 BMI (WHR)  
 ( )  
 WHR

( ) *
/
/
( )

BMD WHO

SPSS/V.9.1

/	/	/	/
/	/	/	/
/	/	/	/
/	/	/	/
/	/	/	/
/	/	/	/

( + / )  
 + / )  
 / (

+ / ) ( ) (P < / )  
 / ( )  
 / ( + / ) (P < / )

---



---



---

( / )	( / )			( / )	( / )*
( / )	( / )			( / )	( / )
( / )	( / )	( / )	( / )	( / )	( / )
( / )	( / )	( / )	( / )	( / )	( / )
( / )	( / )	( / )	( / )	( / )	( / )
( )	( / )	( / )	( / )	( / )	( / )

---

. ( ) : \*

---



---

( )	( / )	( / )	( )	( )	( / )	( / )	( / )*
( )	( )	( / )	( )	( )	( )	( / )	( / )
( )	/	/	/	( )	/		/
( )	/	/	/	( )		/	/

---

. ( ) : \*



(BMI) + / ) ( )  
 .(P < / ) / ( )  
 / ( + / )

.(P < / ) .

.(P < / ) .

:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

/ / / /

/ / / /

\_\_\_\_\_

. ( ) : \*

Archive of SID

.( ) (P < / )

/ /

/ /

.( )

( )

/ ( ) /

( ) ( )

( / )

)

( /

/

( )

( / )

( )

( )

( / )

.( )



( )

( / )

( / )

( )

( )

« »

( )

BMD

/

/

/

/

( )

/

« »

Turn over

( )

( )

.( )

## Bone Turn Over

**References:**

1. Dennis B. Bone density, bone quality and fracture risk 2004, Available from: URL: <http://www.medscape.com/viewarticle/419244?Src=search>
2. Ray N, Chan J, Thamer M, et al. Medical expenditures for the treatment of osteoporotic fracture in the United States in 1995: report from the National Osteoporosis Foundation. *J Bone Miner Res* 1997; 12: 24–35.
3. Kanis J, Melton L, Christiansen C, et al. Perspective: the diagnosis of osteoporosis. *J Bone Miner Res* 1994; 9: 1137–41.
4. Marshall D, Johnell O, Wedel H. Meta-analysis of how well measures of bone mineral density predict occurrence of osteoporotic fractures. *BMJ* 1996; 312: 1254-59.
5. Robert A. Baldor. Update on osteoporosis. *A CME Activity*, 2004. Available from URL: [http://www.medscape.com/viewprogram/2926\\_pnt](http://www.medscape.com/viewprogram/2926_pnt)
6. Agency for healthcare research and quality . recommendations and rationals: screening for osteoporosis in postmenopausal women. US Preventive Task Force. Guide to clinical preventive services. 3<sup>rd</sup> ed, 2003. Available at <http://www.ahrq.gov/clinic/3rduspstf/osteoporosis/osteorr.htm>
7. Lambing C. Osteoporosis 2003. Program and abstracts of the american academy of family physicians 2003 annual scientific assembly. October 1-5, 2003; New Orleans, Louisiana. abstract 181.
8. Truscot J, Simpson D, Fordham J. A suggested methodology reference ranges; 1372 Caucasian women from four UK sites. *Bri J Radio* 1997; 70: 1245-51.
9. Pedrazzoni M, Girasole G, Bertoldo F, et al. Definition of a population – specific DXA reference standard in Italian women: the Densitometric Italian normative Study (DINS). *Osteoporos Int* 2003; 14: 978-982.
10. Looker A, Orwoll E, Johnston C, et al. NHANES III Phases 1 and 2: Prevalence estimates of osteopenia and osteoporosis for men and women 2003. Available from. <http://www.merckmedicus.com/pp/us/hcp/diseases/odules/osteoporosis/epidemiology.jsp>
11. El Desouki M. Osteoporosis in postmenopausal Saudi women using Dual X-Ray bone densitometry. *Saudi Med J* 2003; 24: 953-6.
12. Iki M, Kagamimori S, Kagawa Y, et al. Bone mineral density of the spine, hip and distal forearm in representative sample of the Japanese female population. Japanese Population – Based Osteoporosis Study (JPOS). *Osteoporos Int* 2001; 12: 529-37.
15. Chan W, Liu J, Chi W. Evaluation of bone mineral density of the lumbar spine and proximal femur in population –based routine health examinations of healthy Asians *Acta Radiol* 2004; 45: 59-64.



---

16. Maalouf G, Salem S, Sandid M, et al. Bone mineral density of the Lebanese reference population. *Osteoporos Int* 2001;11:756-64.

17. Woodhead G, Moss M. Osteoporosis : diagnosis and prevention. *NURA Pract* 1998;23:18-37.

18. Wu X, Liao E, Huang G, et al. A comparison study of the reference curves of bone mineral density at different skeletal sites in native Chinese, Japanese and American – Caucasian women. *Calcif Tissue Int* 2003;73:122-32.

Archive of SID