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## Bone Health Status among Postmenopausal Women in Malaysia

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### Abstract

Objectives: The study has evaluated bone health status among post-menopausal women in a public hospital of Malaysia.

Materials and Methods: A total of 116 post-menopausal women, who met the criteria, participated in this study. The purposive sampling method was used to achieve the criteria of participants.

Results: This cross-sectional study revealed that more than half of the respondents (52.6%, n =61) had osteopenia; whereas, 47.4% (n=55) of the respondents had osteoporosis. There was a significant correlation between the age and menopausal years with the bone health status (i.e. P=0.004 and P=0.028, respectively) in postmenopausal women.

Conclusions: Menopausal women experienced deterioration of bone mineral density (BMD) with advancing age and menopausal years.

### Keywords

Author Keywords: Menopausal women; Bone health status; Osteoporosis; Malaysia

KeyWords Plus: MINERAL DENSITY; STRUCTURAL BASIS; AGE; OSTEOPOROSIS; QUALITY; EPIDEMIOLOGY; TRANSITION; MENOPAUSE; COMMUNITY; EDUCATION

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1. [Protamine Ratio as Predictor of the Fertility Potential of Sperm by Couple Undergoing ICSI](#) Times Cited: 1  
 By: Amor, Houda; Zeyad, Ali; Bakry, Mohamed Sobhy; et al.  
 INTERNATIONAL JOURNAL OF WOMENS HEALTH AND REPRODUCTION SCIENCES Volume: 6 Issue: 4 Pages: 400-409 Published: OCT 2018
2. [Osteoporosis-an increasingly important issue for both young and aging citizens of Malaysia](#) Times Cited: 1  
 By: Barling, PM.  
 Int e-J Sci Med Edu Volume: 7 Issue: 1 Pages: 1-3 Published: 2013
3. [Update on Bone Anabolics in Osteoporosis Treatment: Rationale, Current Status, and Perspectives](#) Times Cited: 165  
 By: Baron, Roland; Hesse, Eric  
 JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM Volume: 97 Issue: 2 Pages: 311-325 Published: FEB 2012
4. [Effects of age, sex, and ethnicity on bone health status of the elderly in Kuala Lumpur, Malaysia](#) Times Cited: 3  
 By: Chin, Kok-Yong; Kamaruddin, Alia Annessa Ain; Low, Nie Yen; et al.  
 CLINICAL INTERVENTIONS IN AGING Volume: 11 Pages: 767-773 Published: 2016
5. [Factors Associated with Bone Health in Malaysian Middle-Aged and Elderly Women Assessed via Quantitative Ultrasound](#) Times Cited: 5  
 By: Chin, Kok-Yong; Low, Nie Yen; Dewiputri, Wan Ilma; et al.  
 INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH Volume: 14 Issue: 7 Article Number: UNSP 736 Published: JUL 2017
6. [Postmenopausal syndrome](#) Times Cited: 38  
 By: Dalal, Pronob K.; Agarwal, Manu  
 INDIAN JOURNAL OF PSYCHIATRY Volume: 57 Supplement: 2 Pages: S222-S232 Published: JUL 2015
7. [Epidemiology of Fracture Risk With Advancing Age](#) Times Cited: 103  
 By: Ensrud, Kristine E.  
 JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES Volume: 68 Issue: 10 Pages: 1236-1242 Published: OCT 2013
8. [Long-term health consequences of premature or early menopause and considerations for management](#) Times Cited: 71  
 By: Faubion, S. S.; Kuhle, C. L.; Shuster, L. T.; et al.  
 CLIMACTERIC Volume: 18 Issue: 4 Pages: 483-491 Published: AUG 2015
9. [Bone mineral density changes during the menopause transition in a multiethnic cohort of women](#) Times Cited: 216  
 By: Finkelstein, Joel S.; Brockwell, Sarah E.; Mehta, Vinay; et al.  
 JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM Volume: 93 Issue: 3 Pages: 861-868 Published: MAR 2008
10. [Effects of teriparatide, alendronate, or both on bone turnover in osteoporotic men](#) Times Cited: 90  
 By: Finkelstein, Joel S.; Leder, Benjamin Z.; Burnett, Sherri-Ann M.; et al.  
 JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM Volume: 91 Issue: 8 Pages: 2882-2887 Published: AUG 2006

11. **Effectiveness of a community-based osteoporosis education and self-management course: a wait list controlled trial** Times Cited: 30  
By: Francis, K. L.; Matthews, B. L.; Van Mechelen, W.; et al.  
OSTEOPOROSIS INTERNATIONAL Volume: 20 Issue: 9 Pages: 1563-1570 Published: SEP 2009
12. **Meta-analysis: Excess Mortality After Hip Fracture Among Older Women and Men** Times Cited: 489  
By: Haentjens, Patrick; Magaziner, Jay; Colon-Emeric, Cathleen S.; et al.  
ANNALS OF INTERNAL MEDICINE Volume: 152 Issue: 6 Pages: 380-+ Published: MAR 16 2010
13. **Bone health status and lipid profile among post-menopausal malay women in Cheras, Kuala Lumpur.** Times Cited: 7  
By: Hasnah, H; Amin, I; Suzana, S  
Malaysian journal of nutrition Volume: 18 Issue: 2 Pages: 161-71 Published: 2012-Aug
14. **Randomized controlled trial on the effects of Tualang honey and hormonal replacement therapy (HRT) on cardiovascular risk factors, hormonal profiles and bone density among postmenopausal women: a pilot study** Times Cited: 2  
By: Hazlina, N. H. N.; Amrah, S. S.; Azidah, A. K.  
Journal of Food Research Volume: 1 Issue: 2 Pages: 171 Published: 2012
15. Title: [not available] Times Cited: 2  
Group Author(s): International Osteoporosis Foundation (IOF).  
Facts and Statistics Published: 2015  
Publisher: IOF
16. **An estimate of the worldwide prevalence and disability associated with osteoporotic fractures** Times Cited: 1,710  
By: Johnell, O.; Kanis, J. A.  
OSTEOPOROSIS INTERNATIONAL Volume: 17 Issue: 12 Pages: 1726-1733 Published: DEC 2006
17. Title: [not available] Times Cited: 115  
By: Kanis, JA.  
Assessment of osteoporosis at the primary health-care level Published: 2008  
Publisher: WHO Collaborating Centre for Metabolic Bone Diseases, University of Sheffield Medical School
18. **Pathophysiology of age-related bone loss and osteoporosis** Times Cited: 147  
By: Khosla, S; Riggs, BL  
ENDOCRINOLOGY AND METABOLISM CLINICS OF NORTH AMERICA Volume: 34 Issue: 4 Pages: 1015-+ Published: DEC 2005
19. **Measurement of spinal bone mineral density on a hologic discovery DXA scanner with and without leg elevation** Times Cited: 7  
By: Lekamwasam, Sarath; Rodrigo, Mahinda; Arachchi, Wasantha Kodikara; et al.  
JOURNAL OF CLINICAL DENSITOMETRY Volume: 10 Issue: 2 Pages: 170-173 Published: APR-JUN 2007
20. **Bone health in urban midlife Malaysian women: risk factors and prevention** Times Cited: 23  
By: Lim, PS; Ong, FB; Adeeb, N; et al.  
OSTEOPOROSIS INTERNATIONAL Volume: 16 Issue: 12 Pages: 2069-2079 Published: DEC 2005
21. **Association between sleep quality and bone mineral density in Chinese women vary by age and menopausal status** Times Cited: 1  
By: Lin, Jie; Chen, Lijin; Ni, Saili; et al.  
SLEEP MEDICINE Volume: 53 Pages: 75-80 Published: JAN 2019
22. **The problems and challenges of the aging population of malaysia.** Times Cited: 28  
By: Mafauzy, M  
The Malaysian journal of medical sciences : MJMS Volume: 7 Issue: 1 Pages: 1-3 Published: 2000-Jan
23. **Effects of a Three-Month Therapeutic Lifestyle Modification Program to Improve Bone Health in Postmenopausal Korean Women in a Rural Community: A Randomized Controlled Trial** Times Cited: 15  
By: Oh, Eui Geum; Yoo, Jae Yong; Lee, Jung Eun; et al.  
RESEARCH IN NURSING & HEALTH Volume: 37 Issue: 4 Pages: 292-301 Published: AUG 2014
24. **Duration of the menopausal transition is longer in women with young age at onset: the multiethnic Study of Women's Health Across the Nation** Times Cited: 4  
By: Paramsothy, Pangaja; Harlow, Sioban D.; Nan, Bin; et al.

25. **Understanding the relation between socioeconomic position and inflammation in post-menopausal women: education, income and occupational prestige** Times Cited: 1  
By: Pedersen, Jolene Masters; Budtz-Jorgensen, Esben; De Roos, Anneclaire; et al.  
EUROPEAN JOURNAL OF PUBLIC HEALTH Volume: 27 Issue: 6 Pages: 1074-1079 Published: DEC 2017
26. **Population-based study of age and sex differences in bone volumetric density, size, geometry, and structure at different skeletal sites** Times Cited: 484  
By: Riggs, BL; Melton, LJ; Robb, RA; et al.  
JOURNAL OF BONE AND MINERAL RESEARCH Volume: 19 Issue: 12 Pages: 1945-1954 Published: DEC 2004
27. **Bone quality: the material and structural basis of bone strength** Times Cited: 159  
By: Seeman, Ego  
JOURNAL OF BONE AND MINERAL METABOLISM Volume: 26 Issue: 1 Pages: 1-8 Published: JAN 2008
28. **Mechanisms of disease - Bone quality - The material and structural basis of bone strength and fragility** Times Cited: 1,087  
By: Seeman, Ego; Delmas, Pierre D.  
NEW ENGLAND JOURNAL OF MEDICINE Volume: 354 Issue: 21 Pages: 2250-2261 Published: MAY 25 2006
29. **Biochemical markers of bone turnover: part I: biochemistry and variability.** Times Cited: 291  
By: Seibel, Markus J  
The Clinical biochemist. Reviews Volume: 26 Issue: 4 Pages: 97-122 Published: 2005-Nov
30. **Role of dietary pattern in prevention of osteoporosis in post menopausal females** Times Cited: 1  
By: Sharif, A; Hussain, M; Ilyas, S; et al.  
Cell Volume: 331 Article Number: 4838518 Published: 2017  
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