

Osteoporosis: Risk Assessment 2026

Consultation on draft guideline – deadline for comments 5pm, on Monday 23 February 2026 email: Osteoporosis@nice.org.uk

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Organisation name (if you are responding as an individual rather than a registered stakeholder please specify).	BRITISH ASSOCIATION FOR NUTRITION AND LIFESTYLE MEDICINE (BANT)
Disclosure (please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry).	None
Confidential comments (Do any of your comments contain confidential information?)	No
Name of person completing form	Dr Susan McGinty

Comment number	Document [e.g. guideline, evidence review A, B, C etc., methods, EIA]	Page number 'General' for comments on whole document	Line number 'General' for comments on whole document	Comments <ul style="list-style-type: none"> • Insert each comment in a new row. • Do not paste other tables into this table, because your comments could get lost – type directly into this table. • Include section or recommendation number in this column.
1	EIA	1	General	3.1 Should include “Metabolic and Genetic Factors: Consideration should be given to metabolic and genetic factors influencing homocysteine levels, which differentially affect certain population groups, including older adults, people with nutritional insufficiency, and those of ethnic backgrounds with higher prevalence of MTHFR C677T polymorphism”

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				<p>Rationale: Prevalence of MTHFR C677T and hyper-homocysteinaemia varies by ethnicity and nutritional status. Failure to consider these factors may contribute to under-recognition of fracture risk in some groups, particularly where BMD alone underestimates skeletal fragility.</p> <p>Refs:</p> <ol style="list-style-type: none"> 1) Gjesdal CG, Vollset SE, Ueland PM, et al. Plasma Total Homocysteine Level and Bone Mineral Density: The Hordaland Homocysteine Study. <i>Arch Intern Med.</i> 2006;166(1):88–94. doi:10.1001/archinte.166.1.88 2) BO Abrahamsen, Jonna Skov Madsen, Charlotte Landbo Tofteng, Lis Stilgren, Else Marie Bladbjerg, Søren Risom Kristensen, Kim Brixen, Leif Mosekilde, A Common Methylenetetrahydrofolate Reductase (C677T) Polymorphism Is Associated With Low Bone Mineral Density and Increased Fracture Incidence After Menopause: Longitudinal Data From the Danish Osteoporosis Prevention Study, <i>Journal of Bone and Mineral Research</i>, Volume 18, Issue 4, 1 April 2003, Pages 723–729, https://doi.org/10.1359/jbmr.2003.18.4.723
2	Evidence Review A	8	28	<p>To expand in this section: “Genetic variants affecting folate and homocysteine metabolism (for example, the methylenetetrahydrofolate reductase [MTHFR] C677T polymorphism) contribute to elevated homocysteine levels and have been associated with lower bone mineral density and increased fracture risk in some populations.”</p> <p>Rationale: The MTHFR C677T polymorphism reduces enzyme activity, leading to higher homocysteine concentrations, particularly in individuals with suboptimal folate status. Meta-analyses and longitudinal cohort studies suggest that the TT genotype is associated with lower BMD and increased fracture risk, particularly in women and certain ethnic populations, although heterogeneity exists. Including this as a contributory metabolic risk factor (rather than a screening recommendation) would better reflect current evidence.</p> <p>Refs:</p>

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				<ol style="list-style-type: none"> 1) Wang, H., Liu, C. Association of <i>MTHFR</i> C667T polymorphism with bone mineral density and fracture risk: an updated meta-analysis. <i>Osteoporos Int</i> 23, 2625–2634 (2012). https://doi.org/10.1007/s00198-011-1885-6 2) Gjesdal CG, Vollset SE, Ueland PM, et al. Plasma Total Homocysteine Level and Bone Mineral Density: The Hordaland Homocysteine Study. <i>Arch Intern Med</i>. 2006;166(1):88–94. doi:10.1001/archinte.166.1.88 3) BO Abrahamsen, Jonna Skov Madsen, Charlotte Landbo Tofteng, Lis Stilgren, Else Marie Bladbjerg, Søren Risom Kristensen, Kim Brixen, Leif Mosekilde, A Common Methylenetetrahydrofolate Reductase (C677T) Polymorphism Is Associated With Low Bone Mineral Density and Increased Fracture Incidence After Menopause: Longitudinal Data From the Danish Osteoporosis Prevention Study, <i>Journal of Bone and Mineral Research</i>, Volume 18, Issue 4, 1 April 2003, Pages 723–729, https://doi.org/10.1359/jbmr.2003.18.4.723 4) De Martinis M, Sirufo MM, Nocelli C, Fontanella L, Ginaldi L. Hyperhomocysteinemia is Associated with Inflammation, Bone Resorption, Vitamin B12 and Folate Deficiency and <i>MTHFR</i> C677T Polymorphism in Postmenopausal Women with Decreased Bone Mineral Density. <i>Int J Environ Res Public Health</i>. 2020 Jun 15;17(12):4260. doi: 10.3390/ijerph17124260. PMID: 32549258; PMCID: PMC7345373.
3	Guideline	6	6	<p>At 1.1.4 add extra bullet point: “-impaired one-carbon metabolism resulting in elevated plasma homocysteine.”</p> <p>Rationale: Raised homocysteine has been independently associated with lumbar spine and hip osteoporosis and increased fracture risk. Measurement is inexpensive, widely available, and may identify a potentially modifiable contributor to skeletal fragility, particularly in older adults and those with nutritional deficiencies or relevant genetic variants.</p>
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