

References by topic;

Screening and Treatment Guidelines

1. BHOFF: Clinician's Guide to Prevention and Treatment of Osteoporosis. Online Published April 28, 2022. <https://link.springer.com/content/pdf/10.1007/s00198-021-05900-y.pdf>
2. AACE: American Association of Clinical Endocrinologists and American College of Endocrinology Clinical Practice Guidelines for the Diagnosis and Treatment of Postmenopausal Osteoporosis-2020 update. Online <https://www.sciencedirect.com/science/article/pii/S1530891X20428277>
3. 2025 US Preventive Services Task Force. Screening for Osteoporosis to Prevent Fractures: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2025;333(6):498–508. doi:10.1001/jama.2024.27154 Managing Osteoporosis in Patients on Long-Term Bisphosphonate Treatment: Report of a Task Force of the American Society for Bone and Mineral Research. *JBMR*
4. Osteoporosis Prevention, Screening, and Diagnosis: ACOG Clinical Practice Guideline No. 1. *Obstet Gynecol*. 2021 Sep 1;138(3):494-506. doi: 10.1097/AOG.0000000000004514. PMID: 34412075.
5. Management of osteoporosis in postmenopausal women: the 2021 position statement of The North American Menopause Society. *Menopause*. 2021 Sep 1;28(9):973-997. doi: 10.1097/GME.0000000000001831. PMID: 34448749.
6. FRAX: online available <https://www.fraxplus.org/calculation-tool/>

Peri-Menopausal Bone Loss, Estrogen, and Bone Health

1. Holloway-Kew KL, Morse AG, Anderson KB, Kotowicz MA, Pasco JA. Patterns of Bone Mineral Density Loss at Multiple Skeletal Sites Following Recent Menopause in Users and Non-Users of Menopausal Hormone Therapy. *Calcif Tissue Int*. 2025 Jun 4;116(1):80. doi: 10.1007/s00223-025-01392-8. PMID: 40468025; PMCID: PMC12137504.
2. Shieh A, Ruppert KM, Greendale GA, Lian Y, Cauley JA, Burnett-Bowie SA, Karvonen-Gutierrez C, Karlamangla AS. Associations of Age at Menopause With Postmenopausal Bone Mineral Density and Fracture Risk in Women. *J Clin Endocrinol Metab*. 2022 Jan 18;107(2):e561-e569. doi: 10.1210/clinem/dgab690. PMID: 34537850; PMCID: PMC8764341.
3. Gosset A, Pouillès JM, Trémollières F. Menopausal hormone therapy for the management of osteoporosis. *Best Pract Res Clin Endocrinol Metab*. 2021 Dec;35(6):101551. doi: 10.1016/j.beem.2021.101551. Epub 2021 Jun 2. PMID: 34119418.

4. Neer RM; SWAN Investigators. Bone loss across the menopausal transition. *Ann N Y Acad Sci.* 2010 Mar;1192:66-71. doi: 10.1111/j.1749-6632.2009.05233.x. PMID: 20392219; PMCID: PMC3198834.
5. Shieh A, Ruppert KM, Greendale GA, Lian Y, Cauley JA, Burnett-Bowie SA, Karvonen-Gutierrez C, Karlamangla AS. Associations of age at menopause with postmenopausal bone mineral density and fracture risk in women. *The Journal of Clinical Endocrinology & Metabolism.* 2021 Sep 19.
6. Greendale GA, Huang MH, Cauley JA, Han W, Harlow S, Finkelstein JS, Hans D, and Karlamangla AS. Trabecular bone score declines during the menopause transition: Results from the Study of Women's Health Across the Nation Trabecular Bone Score Study (SWAN-TBS). *J Clinical Endocrinology and Metabolism* 2020 April 4; 105(4): e1872-e1882
7. Stevenson J; medical advisory council of the British Menopause Society. Prevention and treatment of osteoporosis in women. *Post Reprod Health.* 2023 Mar;29(1):11-14. doi: 10.1177/20533691221139902. Epub 2022 Nov 10. PMID: 36357006; PMCID: PMC10009319.
8. Ishii S, Cauley JA, Greendale GA, Crandall CJ, Huang M-H, Danielson M, and Karlamangla AS. Trajectories of Femoral Neck Strength in Relation to the Final Menstrual Period in a Multi-Ethnic Cohort. *Osteop Intl.* 2013 Sep;24(9):2471-81.
9. Shieh A, Karlamangla AS, Huang MH, Han W, Greendale GA. Faster lumbar spine bone loss in midlife predicts subsequent fracture independent of starting bone mineral density. *The Journal of Clinical Endocrinology & Metabolism.* 2021 Jul;106(7):e2491-501.
10. Greendale GA, Sowers MF, Han WJ, et al. Bone mineral density loss in relation to the final menstrual period in a multi-ethnic cohort: Results from the Study of Women's Health Across the Nation (SWAN). *J Bone Miner Res* 2012;27(1):111-8.
11. Lindsay R, Gallagher JC, Kleerekoper M, Pickar JH. Effect of lower doses of conjugated equine estrogens with and without medroxyprogesterone acetate on bone in early postmenopausal women. *JAMA.* 2002 May 22-29;287(20):2668-76. doi: 10.1001/jama.287.20.2668. PMID: 12020302.
12. Bergström I, Freyschuss B, Landgren BM. Physical training and hormone replacement therapy reduce the decrease in bone mineral density in perimenopausal women: a pilot study. *Osteoporos Int.* 2005 Jul;16(7):823-8. doi: 10.1007/s00198-004-1758-3. Epub 2004 Nov 5. PMID: 15536539.
13. Banks E, Beral V, Reeves G, et al. Fracture incidence in relation to the pattern of use of hormone therapy in postmenopausal women. *JAMA* 2004; 291: 2212-2220.

Exercise and Bone Health

1. Jensen SBK, Sørensen V, Sandsdal RM, Lehmann EW, Lundgren JR, Juhl CR, Janus C, Ternhamar T, Stallknecht BM, Holst JJ, Jørgensen NR, Jensen JB, Madsbad S, Torekov SS. Bone Health After Exercise Alone, GLP-1 Receptor Agonist Treatment, or Combination Treatment: A Secondary Analysis of a Randomized Clinical Trial. *JAMA Netw Open*. 2024 Jun 3;7(6):e2416775. doi: 10.1001/jamanetworkopen.2024.16775. PMID: 38916894; PMCID: PMC11200146.
2. Kemmler W, Shojaa M, Kohl M, von Stengel S. Effects of Different Types of Exercise on Bone Mineral Density in Postmenopausal Women: A Systematic Review and Meta-analysis. *Calcif Tissue Int*. 2020 Nov;107(5):409-439. doi: 10.1007/s00223-020-00744-w. Epub 2020 Aug 12. PMID: 32785775; PMCID: PMC7546993.
3. Warden SJ, Edwards WB, Willy RW. Preventing Bone Stress Injuries in Runners with Optimal Workload. *Curr Osteoporos Rep*. 2021 Jun;19(3):298-307. doi: 10.1007/s11914-021-00666-y. Epub 2021 Feb 26. PMID: 33635519; PMCID: PMC8316280.
14. Xiaoya, L., Junpeng, Z., Li, X. *et al*. Effect of different types of exercise on bone mineral density in postmenopausal women: a systematic review and network meta-analysis. *Sci Rep* **15**, 11740 (2025). <https://doi.org/10.1038/s41598-025-94510-3>
15. Beck B, Drysdale L. Risk Factors, Diagnosis and Management of Bone Stress Injuries in Adolescent Athletes: A Narrative Review. *Sports (Basel)*. 2021 Apr 16;9(4):52. doi: 10.3390/sports9040052. PMID: 33923520; PMCID: PMC8073721.
16. Fredericson M, Kussman A, Misra M, Barrack MT, De Souza MJ, Kraus E, Koltun KJ, Williams NI, Joy E, Nattiv A. The Male Athlete Triad-A Consensus Statement From the Female and Male Athlete Triad Coalition Part II: Diagnosis, Treatment, and Return-To-Play. *Clin J Sport Med*. 2021 Jul 1;31(4):349-366. doi: 10.1097/JSM.0000000000000948. PMID: 34091538.
17. De Souza MJ, Nattiv A, Joy E, Misra M, Williams NI, Mallinson RJ, Gibbs JC, Olmsted M, Goolsby M, Matheson G; Expert Panel. 2014 Female Athlete Triad Coalition Consensus Statement on Treatment and Return to Play of the Female Athlete Triad: 1st International Conference held in San Francisco, California, May 2012 and 2nd International Conference held in Indianapolis, Indiana, May 2013. *Br J Sports Med*. 2014 Feb;48(4):289. doi: 10.1136/bjsports-2013-093218. PMID: 24463911.
18. Knechtle B, Jastrzębski Z, Hill L, Nikolaidis PT. Vitamin D and Stress Fractures in Sport: Preventive and Therapeutic Measures-A Narrative Review. *Medicina (Kaunas)*. 2021 Mar 1;57(3):223. doi: 10.3390/medicina57030223. PMID: 33804459; PMCID: PMC7999420.
19. Watson SL, Weeks BK, Weis LJ, Harding AT, Horan SA, Beck BR. High-Intensity Resistance and Impact Training Improves Bone Mineral Density and Physical Function in Postmenopausal Women With Osteopenia and Osteoporosis: The LIFTMOR Randomized Controlled Trial. *J Bone Miner Res*. 2018 Feb;33(2):211-220. doi: 10.1002/jbmr.3284. Epub 2017 Oct 4. Erratum in: *J Bone Miner Res*. 2019 Mar;34(3):572. doi: 10.1002/jbmr.3659. PMID: 28975661.

20. Zhao R, Zhao M, Zhang L. Efficiency of jumping exercise in improving bone mineral density among premenopausal women: a meta-analysis. *Sports Med* 2014;44:1393–402. doi: 10.1007/s40279-014-0220-8
21. Xu J, Lombardi G, Jiao W, Banfi G. Effects of exercise on bone status in female subjects, from young girls to postmenopausal women: an overview of systematic reviews and meta-analyses. *Sports Med* 2016;46:1165–82. doi: 10.1007/s40279-016-0494-0.
22. Wayne PM, Kiel DP, Buring JE, Connors EM, Bonato P, Yeh GY, et al. Impact of tai chi exercise on multiple fracture-related risk factors in post-menopausal osteopenic women: a pilot pragmatic, randomized trial. *BMC Complement Altern Med* 2012;12:7. doi: 10.1186/1472-6882-12-7
23. Sun Z, Chen H, Berger MR, Zhang L, Guo H, Huang Y. Effects of tai chi exercise on bone health in perimenopausal and postmenopausal women: a systematic review and meta-analysis. *Osteoporos Int* 2016;27:2901–11. doi: 10.1007/s00198-016-3626-3
24. Howe TE, Shea B, Dawson LJ, Downie F, Murray A, Ross C, et al. Exercise for preventing and treating osteoporosis in postmenopausal women. *The Cochrane Database of Systematic Reviews* 2011, Issue 7. Art. No.: CD000333. doi: 10.1002/14651858.CD000333.pub2
25. Zhao R, Zhao M, Xu Z. The effects of differing resistance training modes on the preservation of bone mineral density in postmenopausal women: a meta-analysis. *Osteoporos Int* 2015;26:1605–18. doi: 10.1007/s00198-015-3034-0
26. Zhao R, Zhang M, Zhang Q. The effectiveness of combined exercise interventions for preventing postmenopausal bone loss: a systematic review and meta-analysis. *J Orthop Sports Phys Ther* 2017;47:241–51. doi: 10.2519/jospt.2017.6969
27. Gonzalo-Encabo P, McNeil J, Boyne DJ, Courneya KS, Friedenreich CM. Dose-response effects of exercise on bone mineral density and content in post-menopausal women. *Scand J Med Sci Sports* 2019;29:1121–9. doi: 10.1111/sms.13443
28. Angeliki M Angelidi, Konstantinos Stefanakis, Sharon H Chou, Laura Valenzuela-Vallejo, Konstantina Dipla, Chrysoula Boutari, Konstantinos Ntoskas, Panagiotis Tokmakidis, Alexander Kokkinos, Dimitrios G Goulis, Helen A Papadaki, Christos S Mantzoros, Relative Energy Deficiency in Sport (REDs): Endocrine Manifestations, Pathophysiology and Treatments, *Endocrine Reviews*, Volume 45, Issue 5, October 2024, Pages 676–708, <https://doi.org/10.1210/endrev/bnae011>
29. Torstveit MK, Ackerman KE, Constantini N, Holtzman B, Koehler K, Mountjoy ML, Sundgot-Borgen J, Melin A. Primary, secondary and tertiary prevention of Relative Energy Deficiency in Sport (REDs): a narrative review by a subgroup of the IOC

consensus on REDs. *Br J Sports Med.* 2023 Sep;57(17):1119-1126. doi: 10.1136/bjsports-2023-106932. PMID: 37752004.

30. ISCD Official positions: Shuhart CR, Yeap SS, Anderson PA, Jankowski LG, Lewiecki EM, Morse LR, Rosen HN, Weber DR, Zemel BS, Shepherd JA. Executive Summary of the 2019 ISCD Position Development Conference on Monitoring Treatment, DXA Cross-calibration and Least Significant Change, Spinal Cord Injury, Peri-prosthetic and Orthopedic Bone Health, Transgender Medicine, and Pediatrics. *J Clin Densitom.* 2019 Oct-Dec;22(4):453-471. doi: 10.1016/j.jocd.2019.07.001. Epub 2019 Jul 5. PMID: 31400968.

Medication Efficacy

1. Randomized trial of effect of alendronate on risk of fracture in women with existing vertebral fractures. Fracture Intervention Trial Research Group (FIT Trial). *Lancet.* 1996 Dec 7;348(9041):1535-41.
2. Treatment of Low Bone Density or Osteoporosis to Prevent Fractures in Men and Women: A Clinical Practice Guideline Update From the American College of Physicians. *Annals of Internal Medicine.* 2017. Qaseem A, Forcica MA, McLean RM, et al. [Guideline](#)
3. Effectiveness and Safety of Treatments to Prevent Fractures in People With Low Bone Mass or Primary Osteoporosis: A Living Systematic Review and Network Meta-Analysis for the American College of Physicians. *Annals of Internal Medicine.* 2023. Ayers C, Kansagara D, Lazur B, et al. [Guideline](#)
4. Postmenopausal Osteoporosis. *The New England Journal of Medicine.* 2016. Black DM, Rosen CJ.
5. Alendronate for the Primary and Secondary Prevention of Osteoporotic Fractures in Postmenopausal Women. *The Cochrane Database of Systematic Reviews.* 2025. Wells GA, Hsieh SC, Peterson J, et al. [New](#)
6. Effect of Alendronate on Risk of Fracture in Women With Low Bone Density but Without Vertebral Fractures: Results From the Fracture Intervention Trial (FIT trial). *The Journal of the American Medical Association.* 1999. Cummings SR, Black DM, Thompson DE, et al.
7. Meta-Analyses of Therapies for Postmenopausal Osteoporosis. II. Meta-Analysis of Alendronate for the Treatment of Postmenopausal Women. *Endocrine Reviews.* 2002. Cranney A, Wells G, Willan A, et al.
8. Alendronate Sodium. FDA Drug Label. Food and Drug Administration. Updated date: 2021-02-02.
9. Effects of continuing or stopping alendronate after 5 years of treatment: the Fracture Intervention Trial Long-term Extension (FLEX): a randomized trial. *JAMA.* 2006 Dec 27;296(24):2927-38.

10. The HORIZON Recurrent Fracture Trial: Design of a Clinical Trial in the Prevention of Subsequent Fractures After Low Trauma Hip Fracture Repair. *N Engl J Med* 2007; 356:1809-1822 May 3, 2007 DOI: 10.1056/NEJMoa067312
11. The effect of 3 versus 6 years of zoledronic acid treatment of osteoporosis: a randomized extension to the HORIZON-Pivotal Fracture Trial (HORIZON-PFT). *J Bone Miner Res.* 2012 Feb;27(2):243-54. doi: 10.1002/jbmr.1494.
12. Denosumab for Prevention of Fractures in Postmenopausal Women with Osteoporosis. *N Engl J Med* 2009; 361:756-765 August 20, 2009 DOI: 10.1056/NEJMoa0809493
13. Cosman F, Crittenden DB, Adachi JD, et al. Romosozumab Treatment in Postmenopausal Women with Osteoporosis. *N Engl J Med.* 2016; 375:1532-1543.
14. Cosman F, Crittenden DB, Ferrari S, Khan A, Lane NE, Lippuner K, Matsumoto T, Milmont CE, Libanati C, Grauer A. FRAME Study: The Foundation Effect of Building Bone With 1 Year of Romosozumab Leads to Continued Lower Fracture Risk After Transition to Denosumab. *J Bone Miner Res.* 2018 Jul;33(7):1219-1226. doi: 10.1002/jbmr.3427. Epub 2018 May 17. PMID: 29573473.
15. Saag KG, Petersen J, Brandi ML, Karaplis AC, Lorentzon M, Thomas T, Maddox J, Fan M, Meisner PD, Grauer A. Romosozumab or Alendronate for Fracture Prevention in Women with Osteoporosis. (ARCH study) *N Engl J Med.* 2017 Oct 12;377(15):1417-1427. doi: 10.1056/NEJMoa1708322. Epub 2017 Sep 11. PMID: 28892457.

Rebound Bone Loss

1. Tutaworn T, Nieves JW, Wang Z, Levin JE, Yoo JE, Lane JM. Bone loss after denosumab discontinuation is prevented by alendronate and zoledronic acid but not risedronate: a retrospective study. *Osteoporos Int.* 2023 Mar;34(3):573-584. doi: 10.1007/s00198-022-06648-9. Epub 2023 Jan 5. PMID: 36602607; PMCID: PMC9813893. Online: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9813893/>
2. Tay WL, Tay D. Discontinuing Denosumab: Can It Be Done Safely? A Review of the Literature. *Endocrinol Metab (Seoul).* 2022 Apr;37(2):183-194. doi: 10.3803/EnM.2021.1369. Epub 2022 Apr 14. PMID: 35417954; PMCID: PMC9081316. Online: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9081316/>
3. Burckhardt P, Faouzi M, Buclin T, Lamy O; The Swiss Denosumab Study Group. Fractures After Denosumab Discontinuation: A Retrospective Study of 797 Cases. *J Bone Miner Res.* 2021 Sep;36(9):1717-1728. doi: 10.1002/jbmr.4335. Epub 2021 May 19. PMID: 34009703; PMCID: PMC8518625. Online: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8518625/>

4. Cummings SR, Ferrari S, Eastell R, Gilchrist N, Jensen JB, McClung M, Roux C, Törring O, Valter I, Wang AT, Brown JP. Vertebral Fractures After Discontinuation of Denosumab: A Post Hoc Analysis of the Randomized Placebo-Controlled FREEDOM Trial and Its Extension. *J Bone Miner Res.* 2018 Feb;33(2):190-198. doi: 10.1002/jbmr.3337. Epub 2017 Nov 22. PMID: 29105841. Online: <https://onlinelibrary.wiley.com/doi/10.1002/jbmr.3337>
5. Everts-Graber J, Reichenbach S, Ziswiler HR, Studer U, Lehmann T. A Single Infusion of Zoledronate in Postmenopausal Women Following Denosumab Discontinuation Results in Partial Conservation of Bone Mass Gains. *J Bone Miner Res.* 2020 Jul;35(7):1207-1215. doi: 10.1002/jbmr.3962. Epub 2020 Feb 11. PMID: 31991007. Online: <https://onlinelibrary.wiley.com/doi/10.1002/jbmr.3962>
6. Sølling AS, Harsløf T, Langdahl B. Treatment With Zoledronate Subsequent to Denosumab in Osteoporosis: A 2-Year Randomized Study. *J Bone Miner Res.* 2021 Jul;36(7):1245-1254. doi: 10.1002/jbmr.4305. Epub 2021 Apr 20. PMID: 33813753. Online: <https://onlinelibrary.wiley.com/doi/10.1002/jbmr.4305>
7. Denosumab and teriparatide transitions in postmenopausal osteoporosis (the DATA-Switch study): extension of a randomised controlled trial Leder, Benjamin Z et al. *The Lancet*, Volume 386, Issue 9999, 1147 - 1155

Osteonecrosis of the Jaw

1. American Association of Oral and Maxillofacial Surgeons' Position Statement on Medication-Related Osteonecrosis of the Jaws-2022 Update; *Journal of Oral and Maxillofacial Surgery* Vol 80, Issue 5, P920-943; online available: [https://www.joms.org/article/S0278-2391\(22\)00148-3/fulltext](https://www.joms.org/article/S0278-2391(22)00148-3/fulltext)
2. Managing the care of patients receiving antiresorptive therapy for prevention and treatment of osteoporosis Executive summary of recommendations from the American Dental Association Council on Scientific Affairs; *JADA* 142(11); <http://jada.ada.org>; November 2011

Atypical Femur Fractures

1. Shane E, Burr D, Abrahamsen B, Adler RA, Brown TD, Cheung AM, Cosman F, Curtis JR, Dell R, Dempster DW, Ebeling PR, Einhorn TA, Genant HK, Geusens P, Klaushofer K, Lane JM, McKiernan F, McKinney R, Ng A, Nieves J, O'Keefe R, Papapoulos S, Howe TS, van der Meulen MC, Weinstein RS, Whyte MP. Atypical subtrochanteric and diaphyseal femoral fractures: second report of a task force of the American Society for Bone and Mineral Research. *J Bone Miner Res.* 2014;29:1–23. doi: 10.1002/jbmr.1998

2. Neviaser AS, Lane JM, Lenart BA, Edobor-Osula F, Lorich DG. Low-energy femoral shaft fractures associated with alendronate use. *J Orthop Trauma*. 2008;22:346–350. doi: 10.1097/BOT.0b013e318172841c.
3. Schilcher J, Michaëlsson K, Aspenberg P. Bisphosphonate use and atypical fractures of the femoral shaft. *N Engl J Med*. 2011;364:1728–1737. doi: 10.1056/NEJMoa1010650
4. Black DM, Geiger EJ, Eastell R, Vittinghoff E, Li BH, Ryan DS, Dell RM, Adams AL. Atypical Femur Fracture Risk versus Fragility Fracture Prevention with Bisphosphonates. *N Engl J Med*. 2020;383:743–753. doi: 10.1056/NEJMoa1916525.

Osteoporosis Medications and Bone Healing

1. Duckworth AD, McQueen MM, Tuck CE, Tobias JH, Wilkinson JM, Biant LC, Pulford EC, Aldridge S, Edwards C, Roberts CP, Ramachandran M, McAndrew AR, Cheng KC, Johnston P, Shah NH, Mathew P, Harvie J, Hanusch BC, Harkess R, Rodriguez A, Murray GD, Ralston SH. Effect of Alendronic Acid on Fracture Healing: A Multicenter Randomized Placebo-Controlled Trial. *J Bone Miner Res*. 2019 Jun;34(6):1025-1032. doi: 10.1002/jbmr.3679. Epub 2019 Mar 7. PMID: 30845365.
2. Li YT, Cai HF, Zhang ZL. Timing of the initiation of bisphosphonates after surgery for fracture healing: a systematic review and meta-analysis of randomized controlled trials. *Osteoporos Int*. 2015 Feb;26(2):431-41. doi: 10.1007/s00198-014-2903-2. Epub 2014 Sep 30. PMID: 25266485.
3. Ha KY, Park KS, Kim SI, Kim YH. Does bisphosphonate-based anti-osteoporosis medication affect osteoporotic spinal fracture healing? *Osteoporos Int*. 2016 Feb;27(2):483-8. doi: 10.1007/s00198-015-3243-6. Epub 2015 Jul 23. PMID: 26202489.
4. Xue D, Li F, Chen G, Yan S, Pan Z. Do bisphosphonates affect bone healing? A meta-analysis of randomized controlled trials. *J Orthop Surg Res*. 2014 Jun 5;9:45. doi: 10.1186/1749-799X-9-45. PMID: 24902588; PMCID: PMC4058448.
5. Savaridas T, Wallace RJ, Salter DM, Simpson AH. Do bisphosphonates inhibit direct fracture healing?: A laboratory investigation using an animal model. *Bone Joint J*. 2013 Sep;95-B(9):1263-8. doi: 10.1302/0301-620X.95B9.31562. PMID: 23997143.
6. Adami et al. Denosumab treatment in postmenopausal women with osteoporosis does not interfere with fracture-healing: results from the FREEDOM trial. *J Bone Joint Surg Am*. 2012 Dec 5;94(23):2113-9.
7. Eastman K, Gerlach M, Piec I, Greeves J, Fraser W. Effectiveness of parathyroid hormone (PTH) analogues on fracture healing: a meta-analysis. *Osteoporos Int*. 2021 Aug;32(8):1531-1546. doi: 10.1007/s00198-021-05847-0. Epub 2021 Feb 9. PMID: 33559713.

8. Aspenberg et al. Teriparatide for acceleration of fracture repair in humans: a prospective, randomized, double-blind study of 102 postmenopausal women with distal radial fractures. *J Bone Miner Res* 2010;25:404-14.
9. Aspenberg P, Malouf J, Tarantino U, García-Hernández PA, Corradini C, Overgaard S, Stepan JJ, Borris L, Lespessailles E, Frihagen F, Papavasiliou K, Petto H, Caeiro JR, Marin F. Effects of Teriparatide Compared with Risedronate on Recovery After Pertrochanteric Hip Fracture: Results of a Randomized, Active-Controlled, Double-Blind Clinical Trial at 26 Weeks. *J Bone Joint Surg Am*. 2016 Nov 16;98(22):1868-1878. doi: 10.2106/JBJS.15.01217. PMID: 27852903; PMCID: PMC5551693.
10. Bernhardsson M, Aspenberg P. Abaloparatide versus teriparatide: a head to head comparison of effects on fracture healing in mouse models. *Acta Orthop*. 2018 Dec;89(6):674-677. doi: 10.1080/17453674.2018.1523771. Epub 2018 Oct 18. PMID: 30334479; PMCID: PMC6300720.
11. Bhandari et al. Romosozumab in Skeletally Mature Adults with a Fresh Unilateral Tibial Diaphyseal Fracture: A Randomized Phase-2 Study. *J Bone Joint Surg Am*. 2020 Aug 19;102(16):1416-1426.
12. Schemitsch EH, Miclau T, Karachalios T, Nowak LL, Sancheti P, Poolman RW, Caminis J, Daizadeh N, Dent-Acosta RE, Egbuna O, Chines A, Maddox J, Grauer A, Bhandari M. A Randomized, Placebo-Controlled Study of Romosozumab for the Treatment of Hip Fractures. *J Bone Joint Surg Am*. 2020 Apr 15;102(8):693-702. doi: 10.2106/JBJS.19.00790. PMID: 31977817; PMCID: PMC7508283.
13. Chandran M, Akesson KE, Javaid MK, Harvey N, Blank RD, Brandi ML, Chevalley T, Cinelli P, Cooper C, Lems W, Lyritis GP, Makras P, Paccou J, Pierroz DD, Sosa M, Thomas T, Silverman S; Fracture Working Group of the Committee of Scientific Advisors of the International Osteoporosis Foundation, on behalf of the International Osteoporosis Foundation, Société Internationale de Chirurgie Orthopédique et de Traumatologie. Impact of osteoporosis and osteoporosis medications on fracture healing: a narrative review. *Osteoporos Int*. 2024 Aug;35(8):1337-1358. doi: 10.1007/s00198-024-07059-8. Epub 2024 Apr 8. PMID: 38587674; PMCID: PMC11282157.
14. Cosman F, Crittenden DB, Ferrari S, Khan A, Lane NE, Lippuner K, Matsumoto T, Milmont CE, Libanati C, Grauer A. FRAME Study: The Foundation Effect of Building Bone With 1 Year of Romosozumab Leads to Continued Lower Fracture Risk After Transition to Denosumab. *J Bone Miner Res*. 2018 Jul;33(7):1219-1226. doi: 10.1002/jbmr.3427. Epub 2018 May 17. PMID: 29573473.
15. Brown JP, Engelke K, Keaveny TM, Chines A, Chapurlat R, Foldes AJ, Nogues X, Civitelli R, De Villiers T, Massari F, Zerbini CAF, Wang Z, Oates MK, Recknor C, Libanati C. Romosozumab improves lumbar spine bone mass and bone strength

parameters relative to alendronate in postmenopausal women: results from the Active-Controlled Fracture Study in Postmenopausal Women With Osteoporosis at High Risk (ARCH) trial. *J Bone Miner Res.* 2021 Nov;36(11):2139-2152. doi: 10.1002/jbmr.4409. Epub 2021 Aug 10. PMID: 34190361; PMCID: PMC9292813.

16. Langdahl BL, Silverman S, Fujiwara S, Saag K, Napoli N, Soen S, Enomoto H, Melby TE, Disch DP, Marin F, Krege JH. Real-world effectiveness of teriparatide on fracture reduction in patients with osteoporosis and comorbidities or risk factors for fractures: Integrated analysis of 4 prospective observational studies. *Bone.* 2018 Nov;116:58-66. doi: 10.1016/j.bone.2018.07.013. Epub 2018 Jul 18. PMID: 30021126.
17. McCloskey EV, Fitzpatrick LA, Hu MY, Williams G, Kanis JA. Effect of abaloparatide on vertebral, nonvertebral, major osteoporotic, and clinical fractures in a subset of postmenopausal women at increased risk of fracture by FRAX probability. *Arch Osteoporos.* 2019 Feb 5;14(1):15. doi: 10.1007/s11657-019-0564-7. PMID: 30719589; PMCID: PMC6373333.

DXA, Policy, Cost, Other

1. ISCD: 2023 ISCD Official Position Statement. Online Available: <https://iscd.org/official-positions-2023/>
2. Bonnick, Sydney Lou; *Bone Densitometry in Clinical Practice.* 2010
3. Lewiecki EM, Ortendahl JD, Vanderpuye-Orgle J, Grauer A, Arellano J, Lemay J, Harmon AL, Broder MS, Singer AJ. Healthcare Policy Changes in Osteoporosis Can Improve Outcomes and Reduce Costs in the United States. *JBMR Plus.* 2019 May 13;3(9):e10192. doi: 10.1002/jbm4.10192. PMID: 31667450; PMCID: PMC6808223