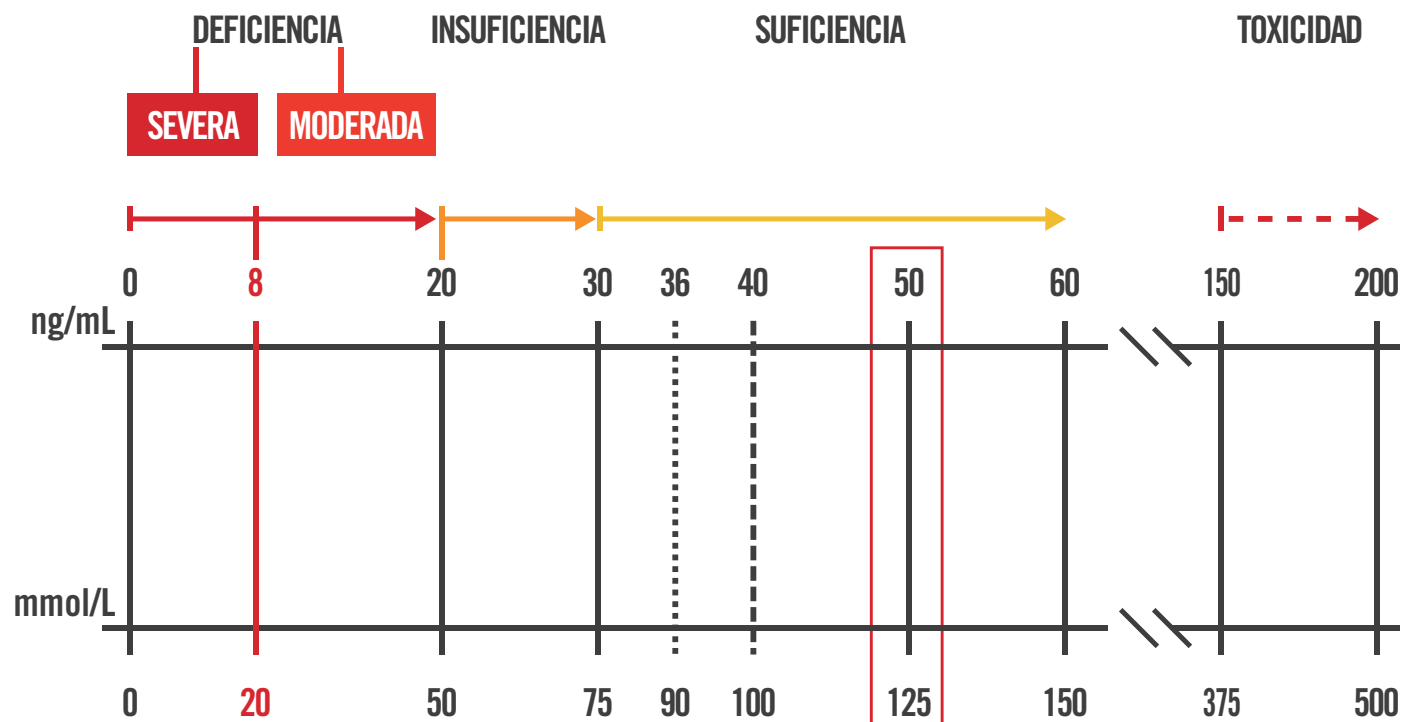


Vitamina D

en traumatología y ortopedia

a) Clasificación del estado de la vitamina D

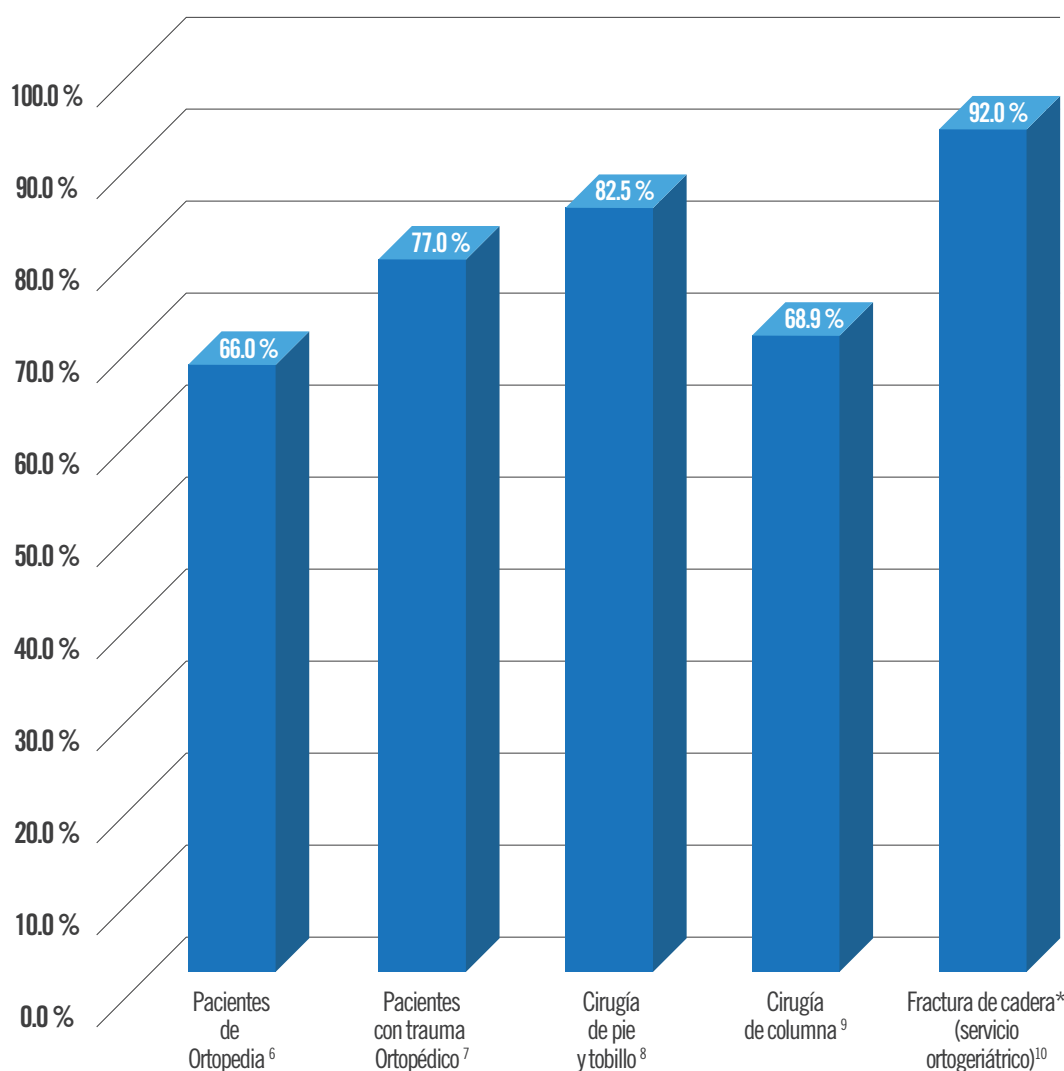
- Mayor efecto en la densidad mineral¹ 36-40 ng/mL
- Valor recomendado en atletas² y para la prevención de fracturas por estrés³ >40 ng/mL
- Cifra recomendada en la práctica ortopédica⁴ 40-50 ng/mL



Vitamina D

en traumatología y ortopedia

b) Prevalencia de deficiencia o insuficiencia de vitamina D en traumatología y ortopedia



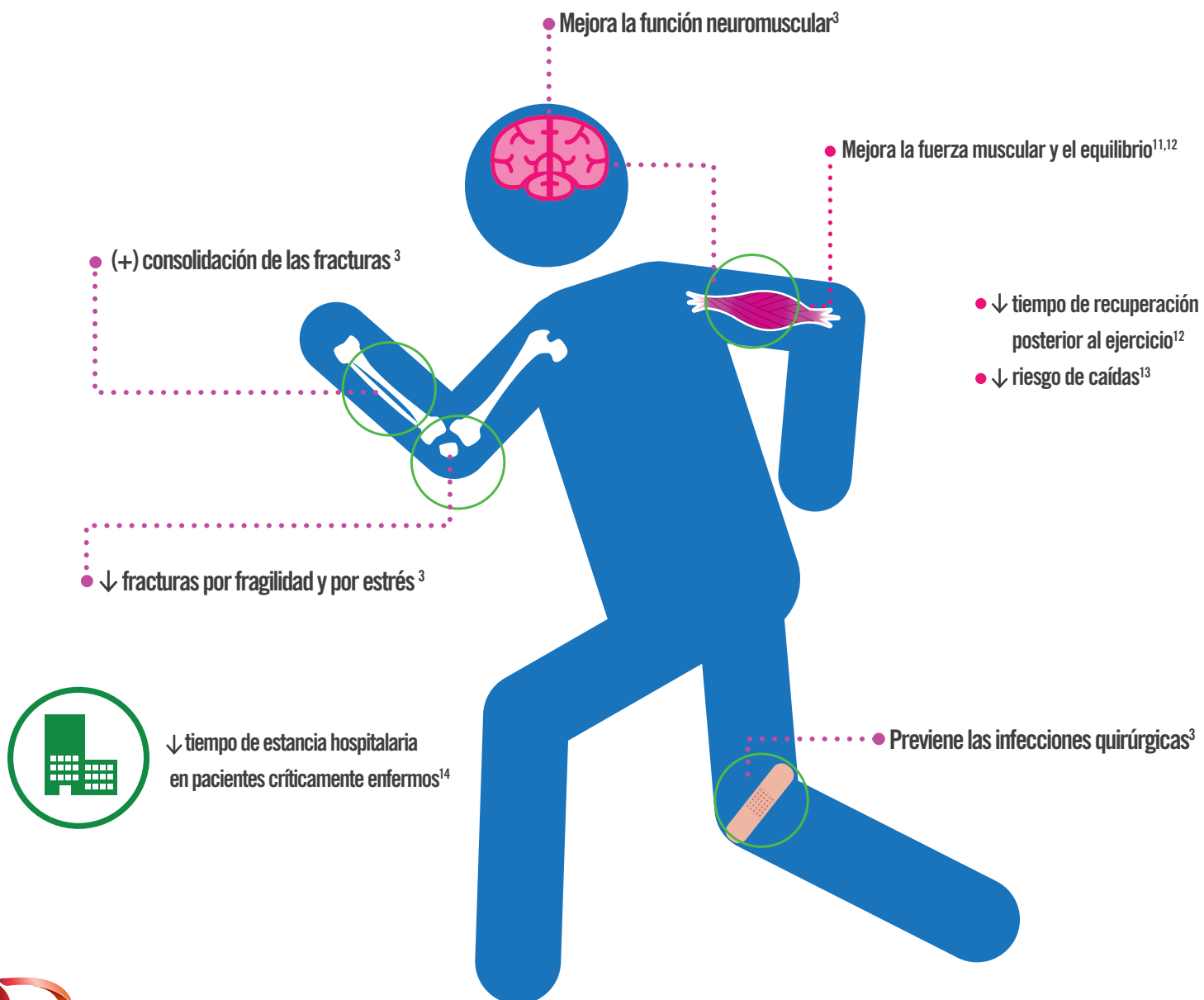
*En México, el costo del manejo quirúrgico de la fractura de cadera varía de 20,287 a 37,364 pesos⁵



Vitamina D

en traumatología y ortopedia

c) Beneficios de alcanzar y mantener una cifra óptima de vitamina D



Vitamina D

en traumatología y ortopedia

d) Suplementación



- La suplementación con vitamina D reduce el riesgo de fractura de cadera en 30 % y el riesgo de fractura no vertebral en 14 %.¹¹
- La dosis de 4000 UI al día de colecalciferol es fisiológica y segura en adultos.¹⁵

Referencias:

1. Laird E, Ward M, McSorley E, Strain JJ, Wallace J. Vitamin D and bone health: potential mechanisms. *Nutrients*. 2010;2:693-724.
2. Ogan D, Pritchett K. Vitamin D and the athlete: risk, recommendations and benefits. *Nutrients*. 2013;5:1856-1868.
3. Mesa-Ramos M, Caeiro-Rey JR, Etxebarria-Foronda I, Carpintero-Benitez P. Aspects of interest on vitamin D for the traumatologist and orthopaedic surgeon. *Rev Esp Cir Ortop Traumatol*. 2012;56(2):164-173.
4. Everett PC. The prevalence of vitamin D deficiency and insufficiency in a hematology-oncology clinic. *Clin J Oncol Nurs*. 2008;12(1):33-5.
5. Carlos F, Clark P, Maciel H, Tamayo JA. Direct costs of osteoporosis and hip fracture: An analysis for the Mexican Social Insurance Health Care System. *Salud Pública Mex*. 2009;51 Supl 1:S108-S113.
6. Maier GS, Jakob P, Horas K, y cols. Vitamin D deficiency in orthopaedic patients. A single center analysis. *Acta Ortho Belg*. 2013;79:587-591.
7. Hood MA, Murtha YM, Rocca GJD, y cols. Prevalence of low vitamin D levels in patients with orthopaedic trauma. *Am J Orthop*. 2016;45(7):E522-E526.
8. Aujla RS, Allen PE, Ribbans WJ. Vitamin D levels in 577 consecutive elective foot & ankle surgery patients. *Foot Ankle Surg*. 2017;S1268-7731(17)31368-1.
9. Ravindra VM, Godzik J, Guan J, y cols. Prevalence of vitamin D deficiency in patients undergoing elective spine surgery: A cross-sectional analysis. *World Neurosurg*. 2015;83(6):1114-1119.
10. Ramason R, Selvaganapathi N, Binte INH, Chin WW, Naidu RG, Sain CM. Prevalence of vitamin D deficiency in patients with hip fracture seen in a orthogeriatric service in sunny Singapore. *Geriatric Orthopaedic Surgery & Rehabilitation*. 2014;5(2):82-86.
11. Wacker M, Holick MF. Vitamin D-Effects on skeletal and extraskeletal health and the need for supplementation. *Nutrients*. 2013;5:111-148.
12. Dahlquist DT, Dieter BP, Koehle MS. Plausible ergogenic effects of vitamin D on Athletic performance and recovery. *J Int Soc Sports Nutr*. 2015;12:33.
13. Akdeniz S, Hegguler S, ztiirk C, y cols. The relation between vitamin D and postural balance according to clinical tests and tetra posturography. *J Phys Ther Sci*. 2016;28:1272-1277.
14. Matthews LR, Ahmed Y, Wilson KL, y cols. Worsening severity of vitamin D deficiency is associated with increased length of stay, surgical intensive care unit cost, and mortality rate in surgical intensive care unit patients. *Am J Surg*. 2012 Jul;204(1):37-43.
15. Vieth R, Kimball S, Hu A, y cols. Randomized comparison of the effects of the vitamin D3 adequate intake versus 100 mcg (4000 IU) per day on biochemical responses and the wellbeing of patients. *Nutrition J*. 2004;3:8.

