



68° CONGRESSO NAZIONALE SIGG

Ritorno al futuro

FIRENZE, 13-16 DICEMBRE 2023
PALAZZO DEI CONGRESSI



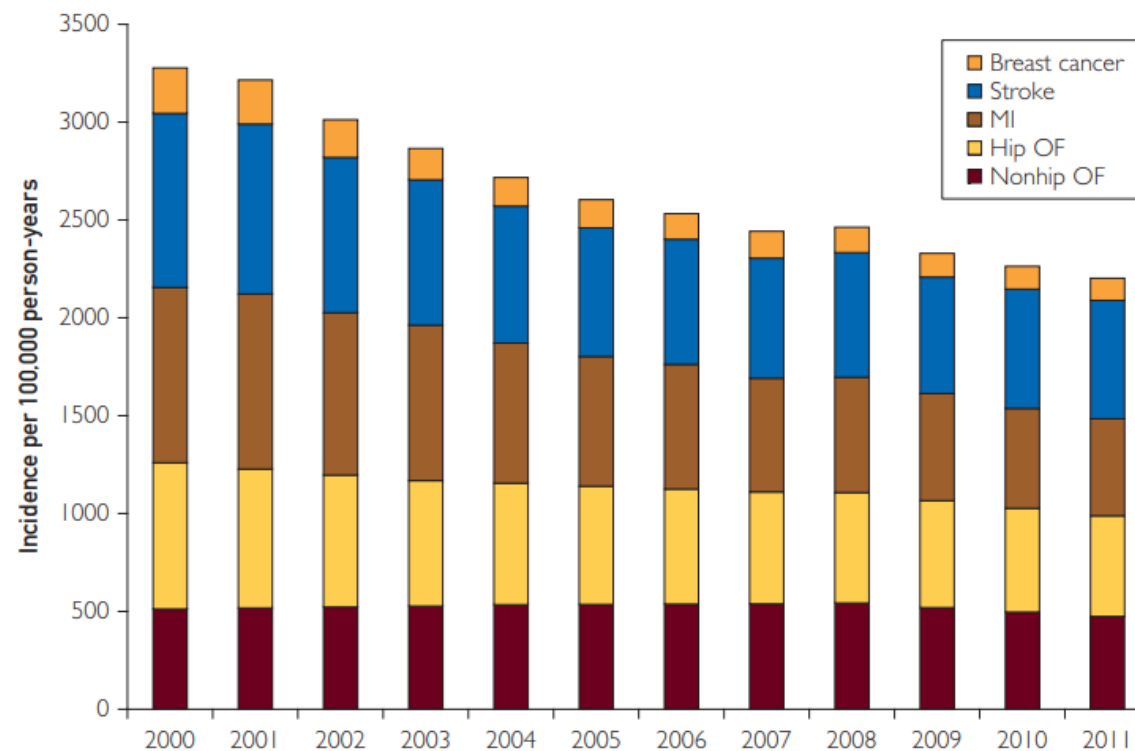
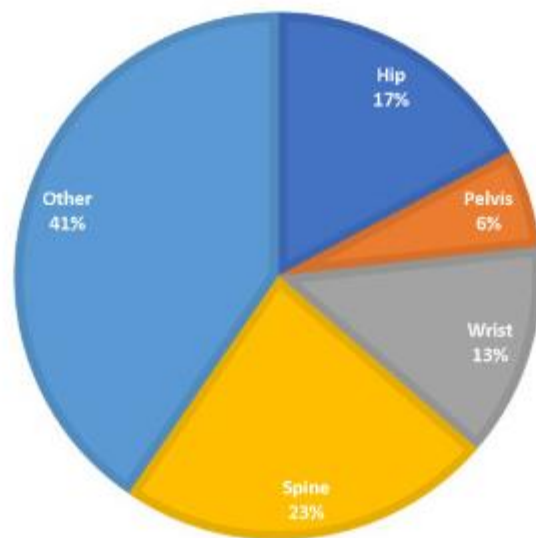
Giuseppe Colloca

SARCOPENIA E OSTEOPOROSI

Fondazione Policlinico A. Gemelli IRCCS



Public Health Impact of Osteoporosis



Unadjusted rate of total osteoporotic fracture, myocardial infarction, stroke, and breast cancer hospitalizations. OF ¼ osteoporotic fracture; MI ¼ myocardial infarction

J Bone Miner Res., 29 (2014), pp. 2520-2526

Mayo Clin Proc. n January 2015;90(1):53-62



- **22 milioni** di donne
- **5,5 milioni** di uomini



3,5 milioni
di donne³



1 milione
di uomini³



90.539
Fratture di femore⁸



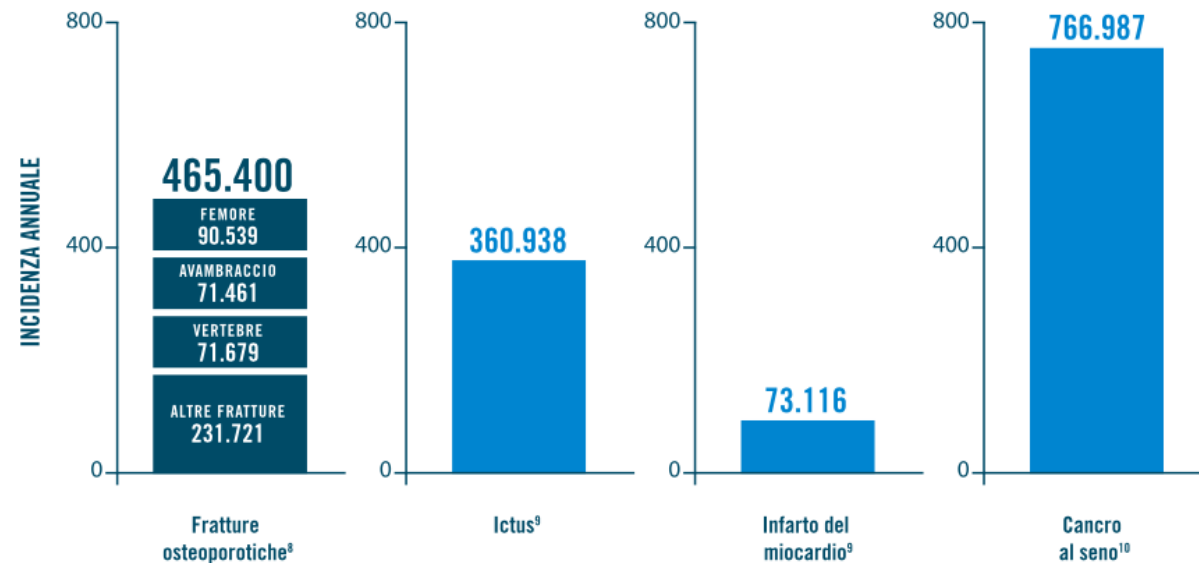
71.679
Fratture dell'avambraccio⁸



71.461
Fratture vertebrali⁸



231.721
Altre fratture⁸



Costo totale dell'osteoporosi per anno: oltre 7 miliardi di €⁸

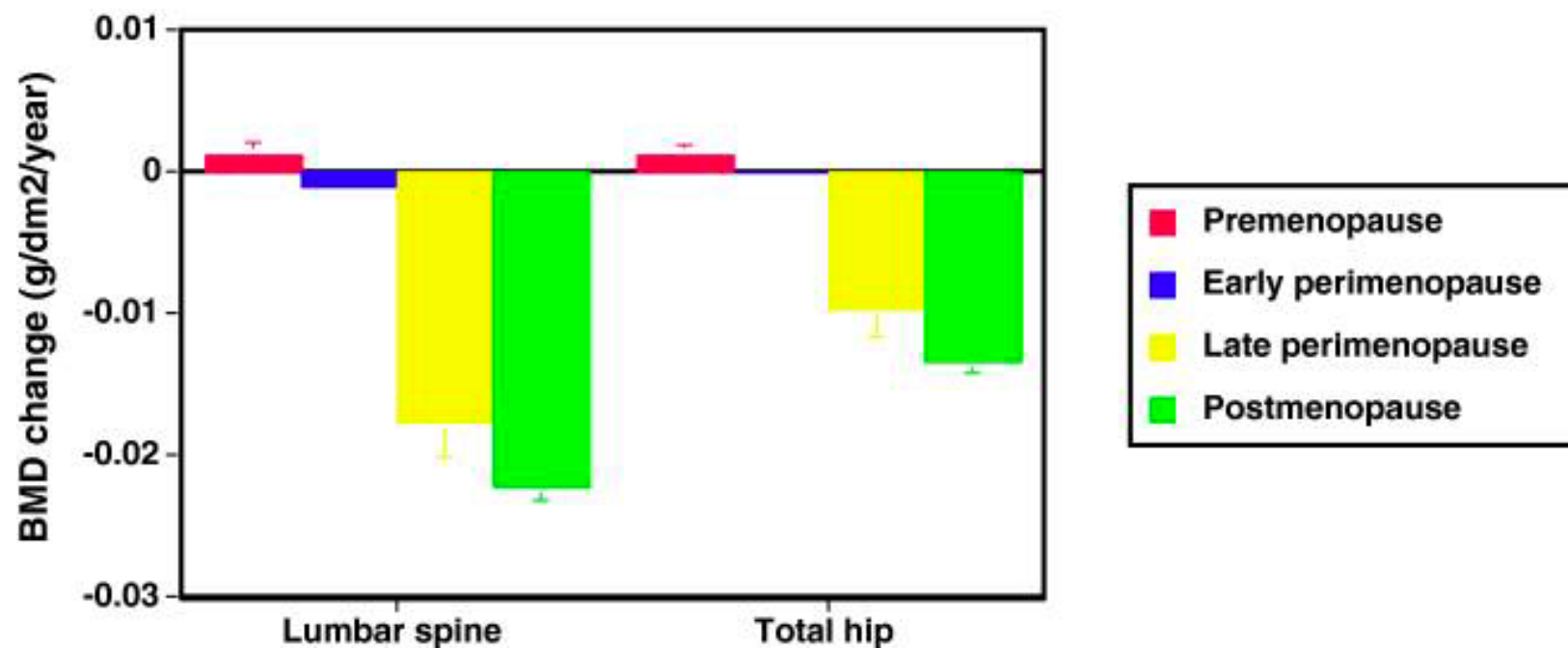
>4 miliardi di €
i costi relativi al
primo anno
dopo la frattura⁸

>2 miliardi di €
i costi a lungo
termine per la
disabilità⁸

361 milioni di €
i costi dei farmaci
per la prevenzione
delle fratture⁸



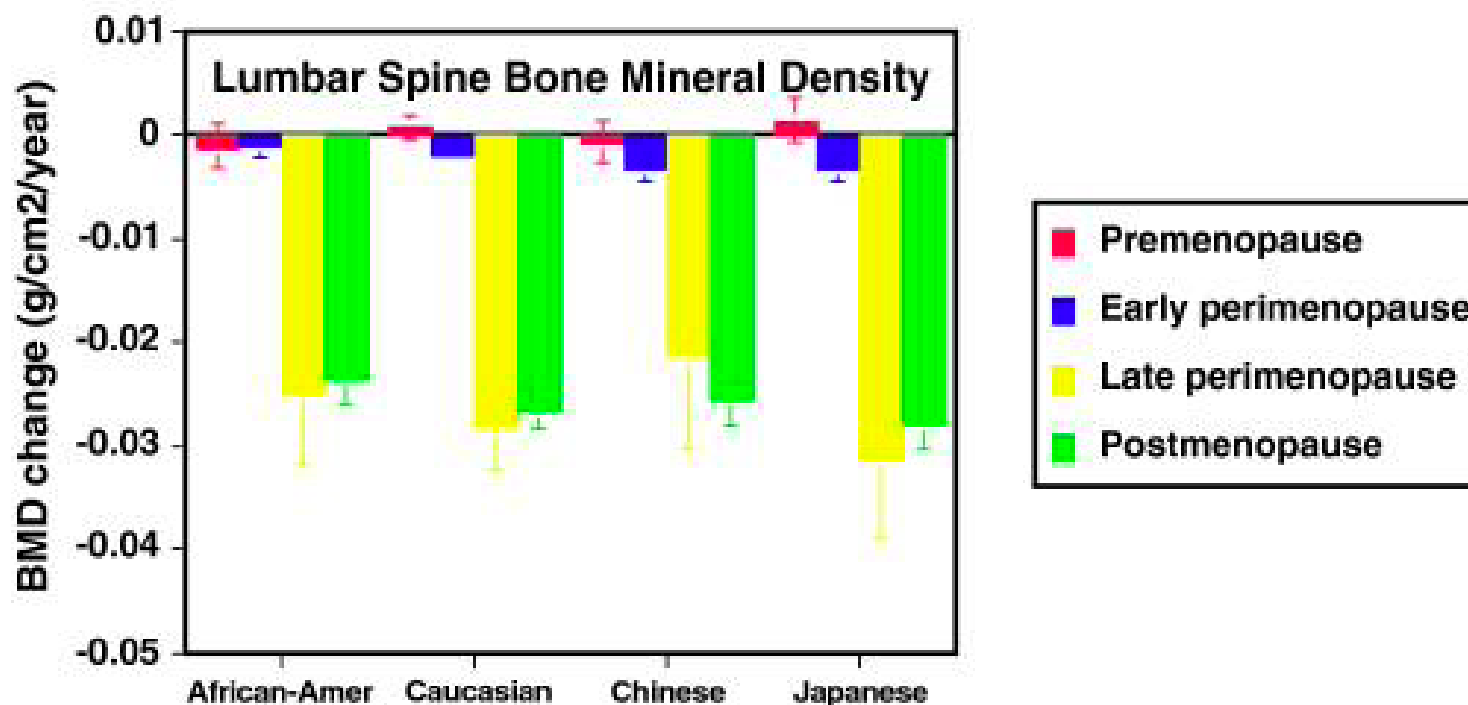
Bone Mineral Density Changes during the Menopause Transition in a Multiethnic Cohort of Women



Annual rate of change in BMD of the lumbar spine and total hip



Bone Mineral Density Changes during the Menopause Transition in a Multiethnic Cohort of Women



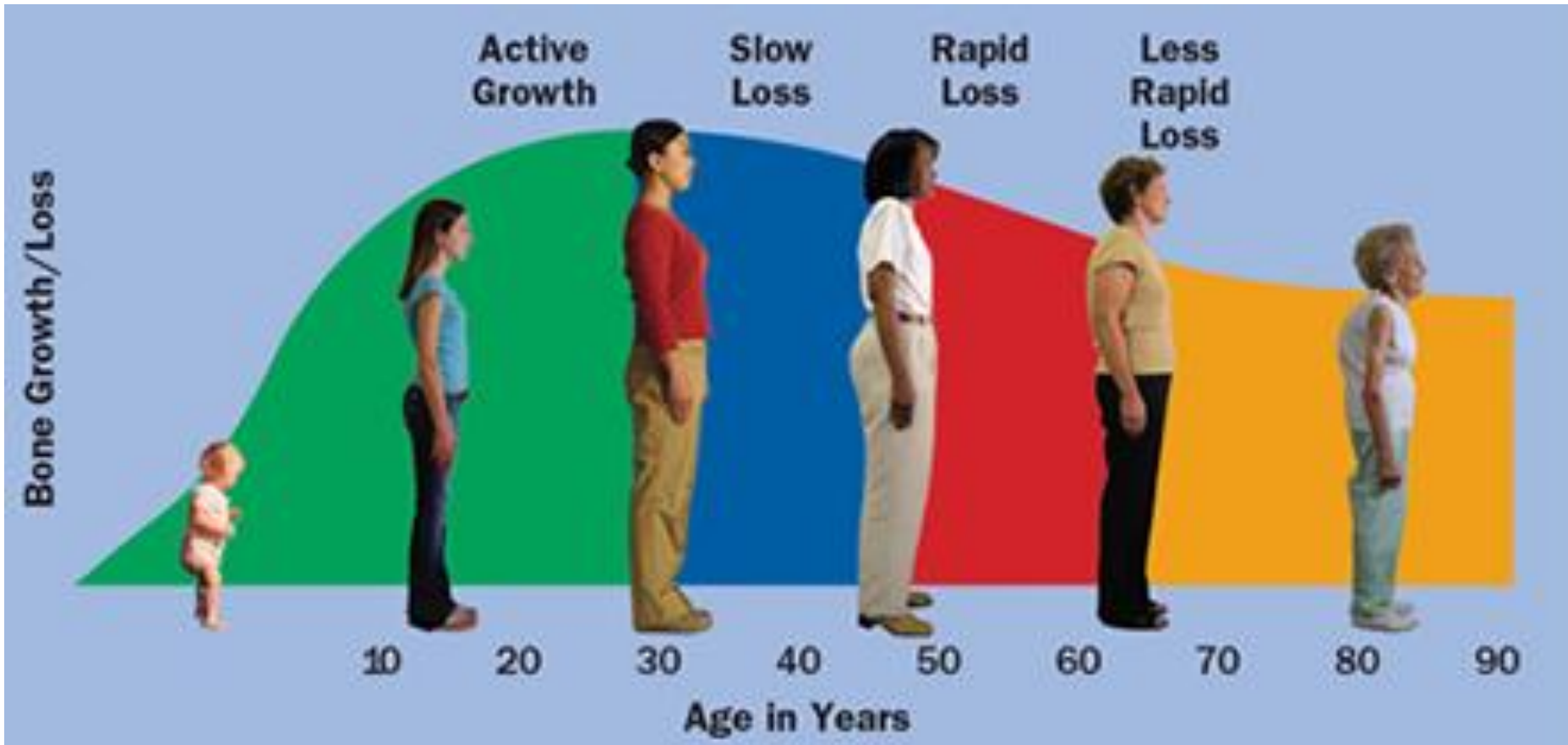
Annual rate of change in BMD of the lumbar spine and total hip



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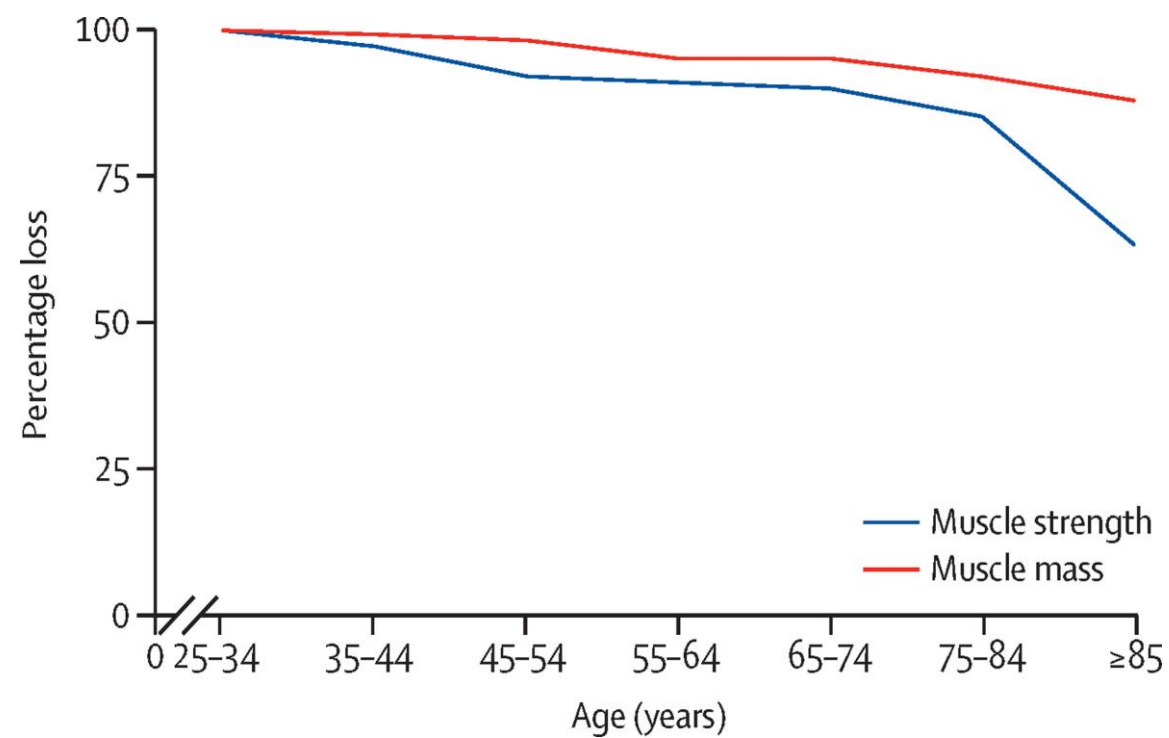
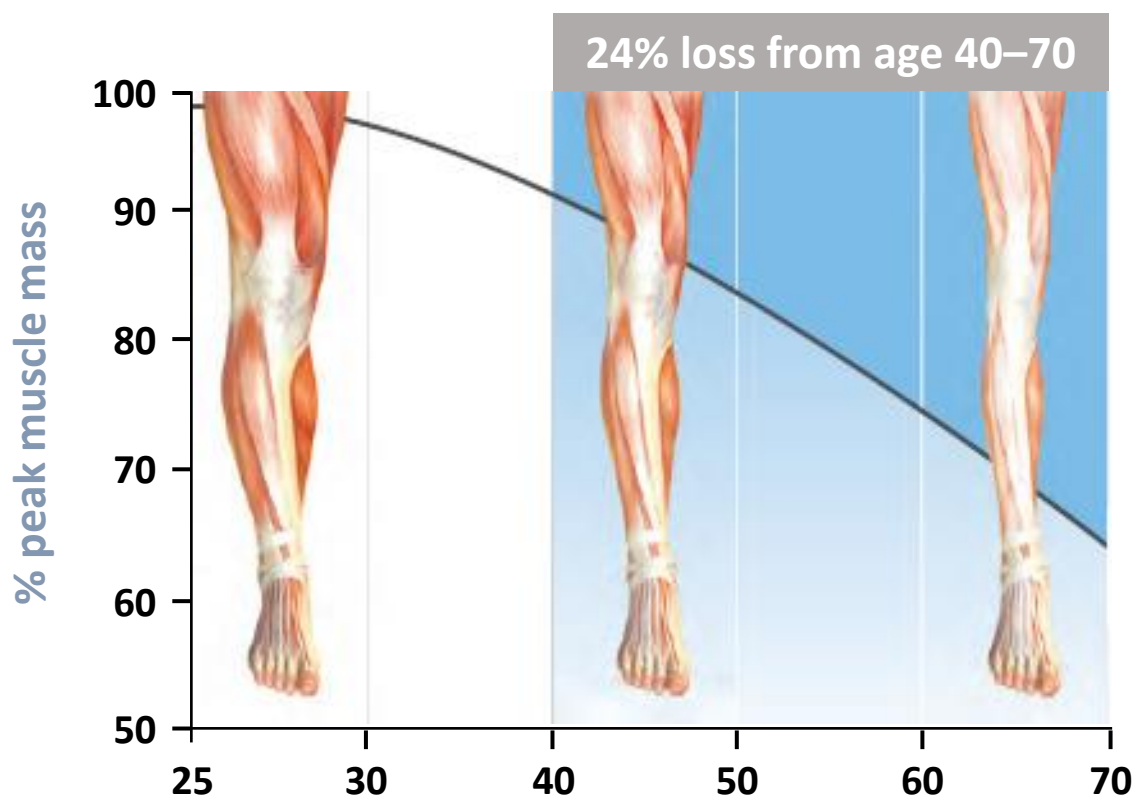
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Loss of muscle mass and strength, a natural part of aging

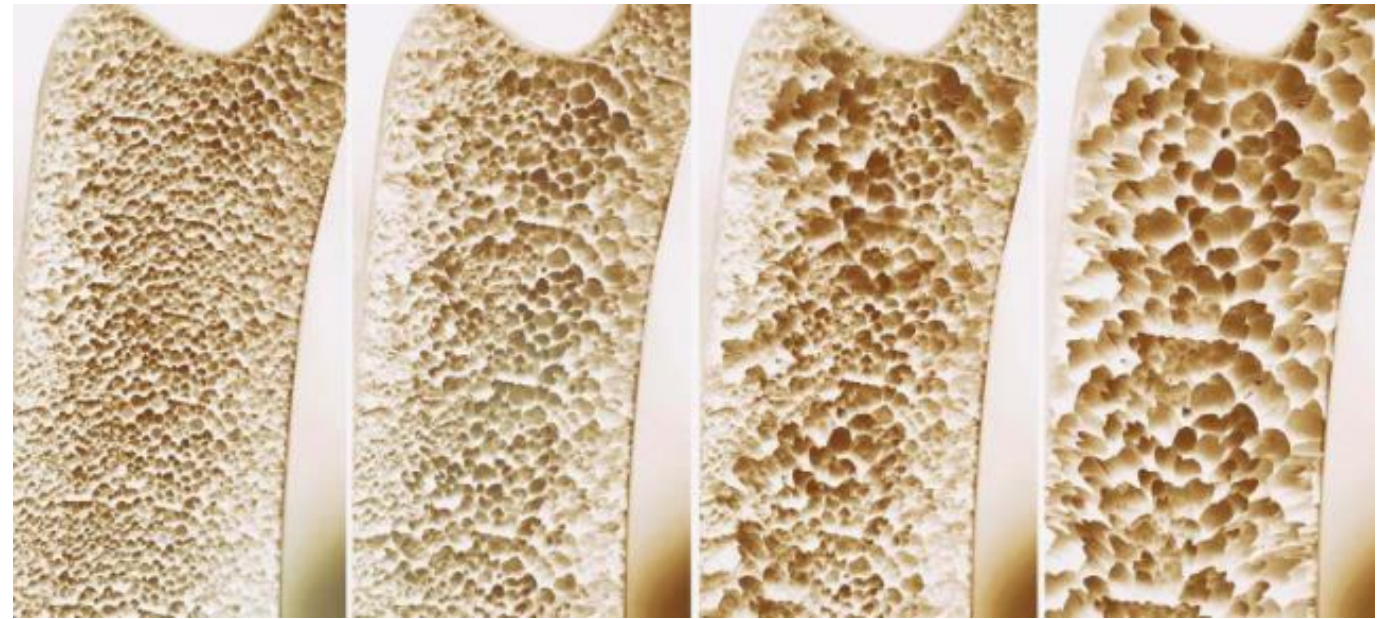
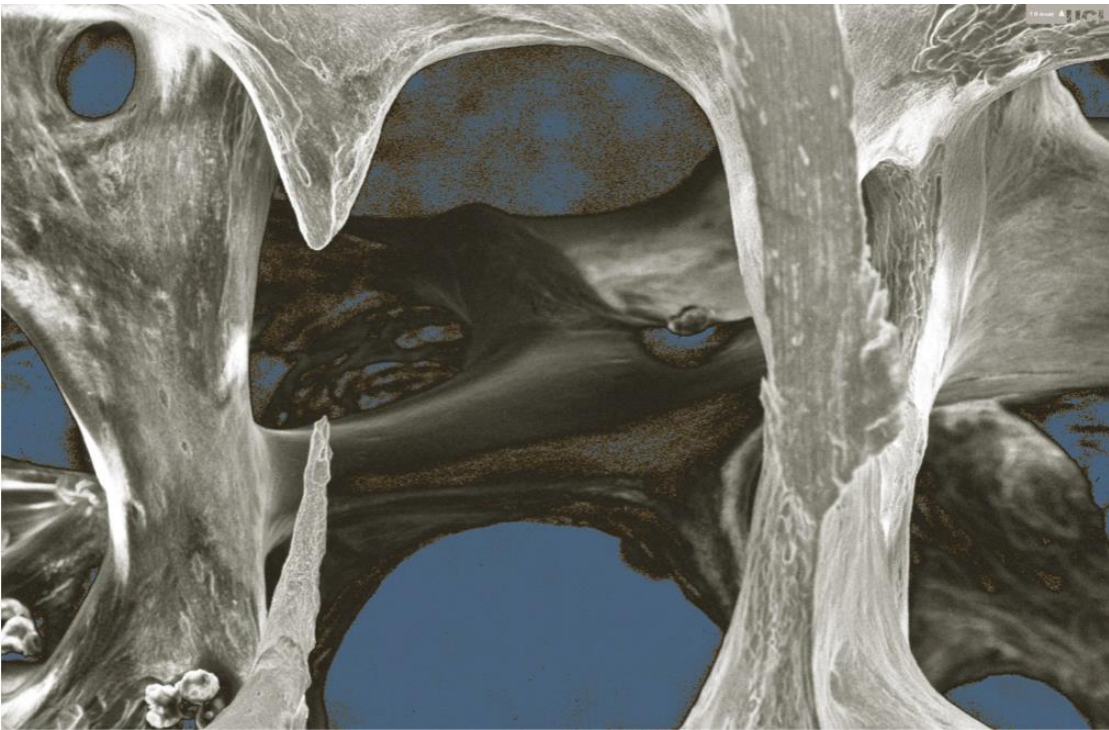




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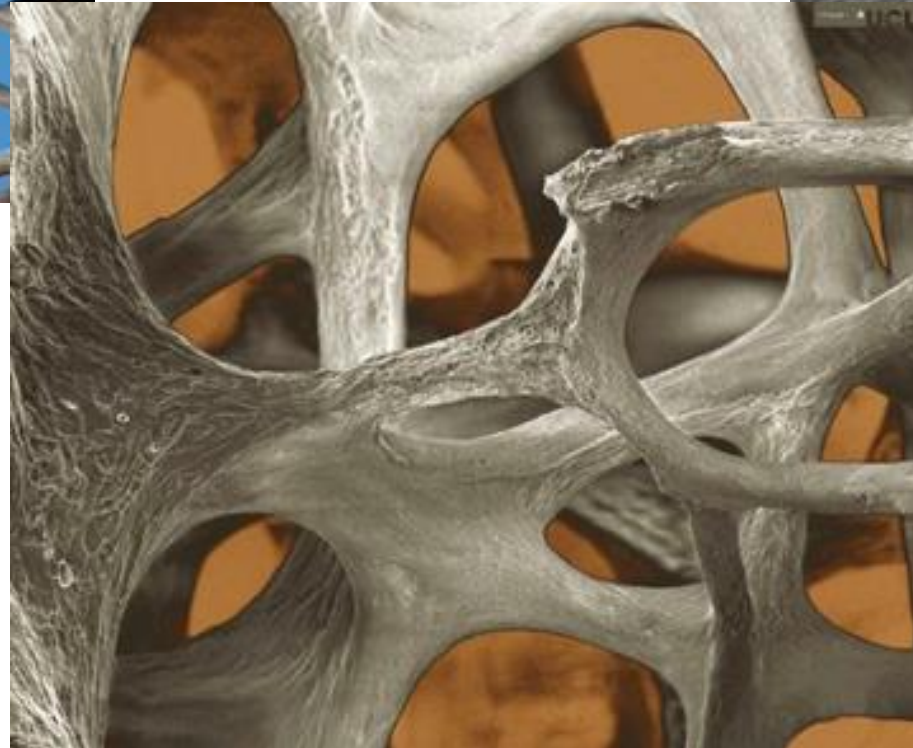
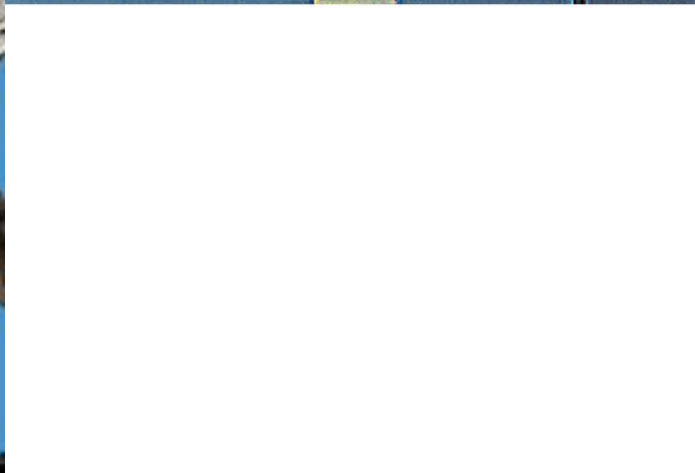
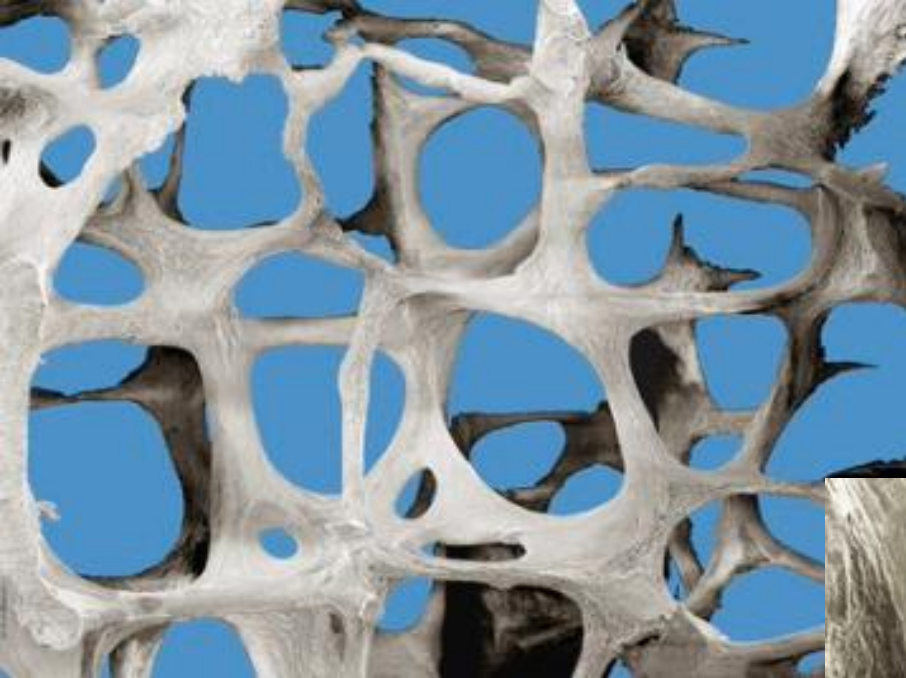


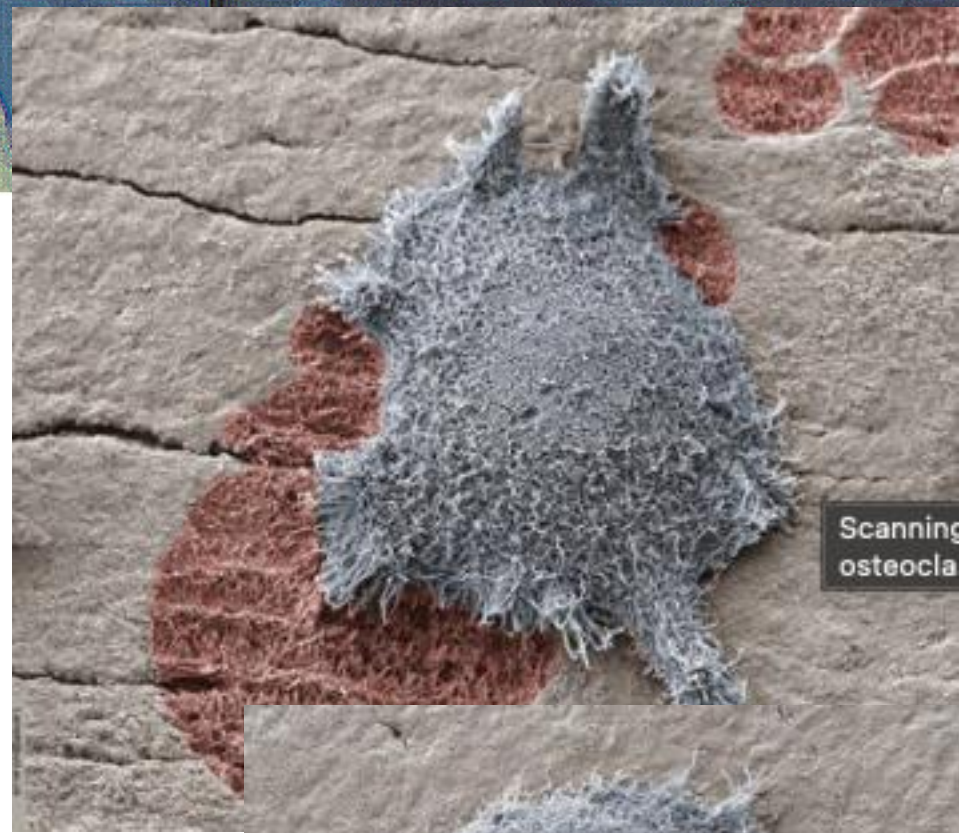
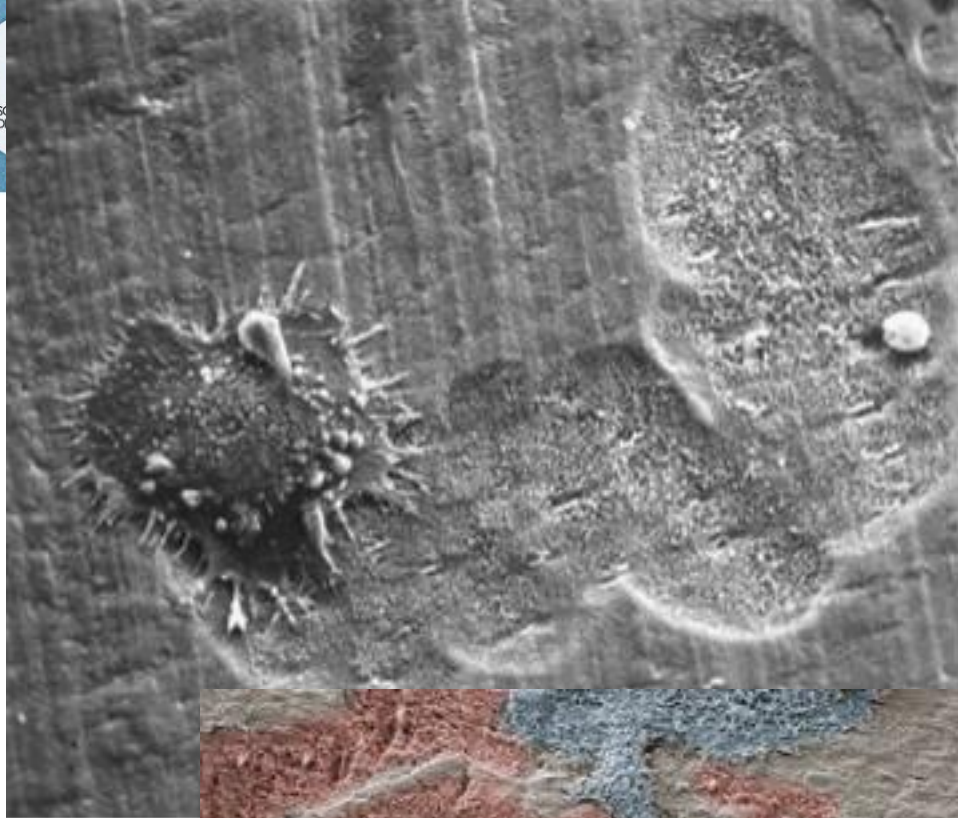


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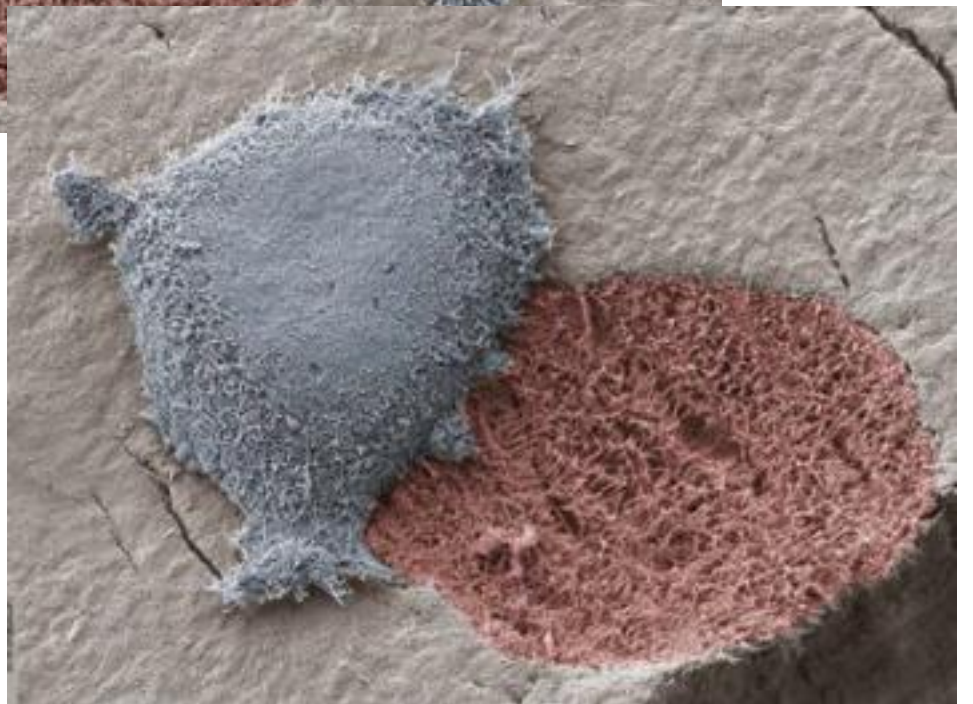
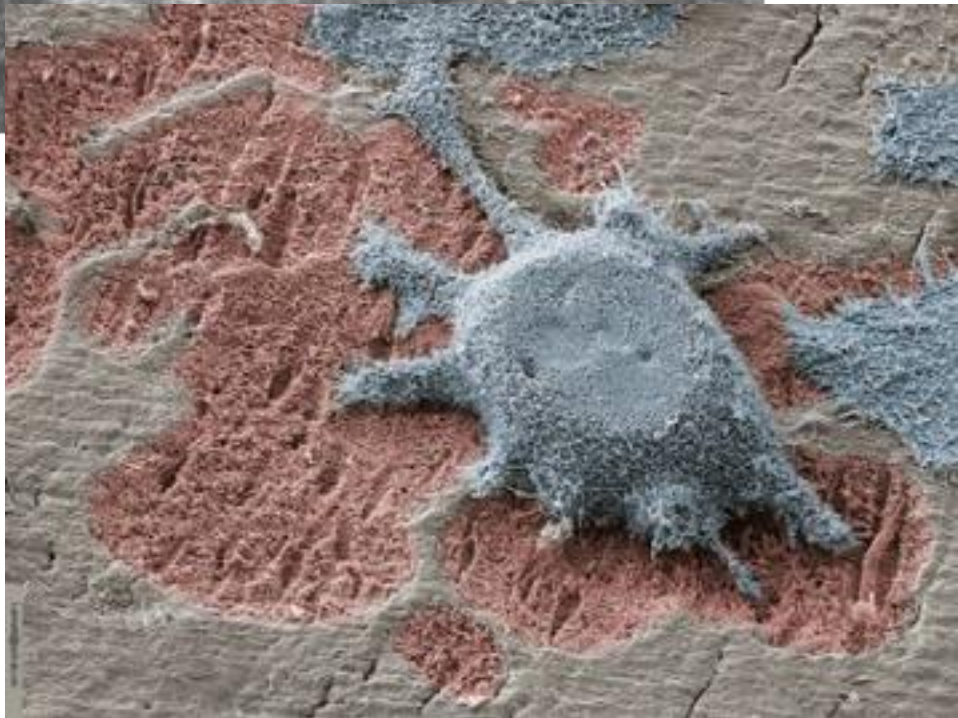
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Scanning
osteocla

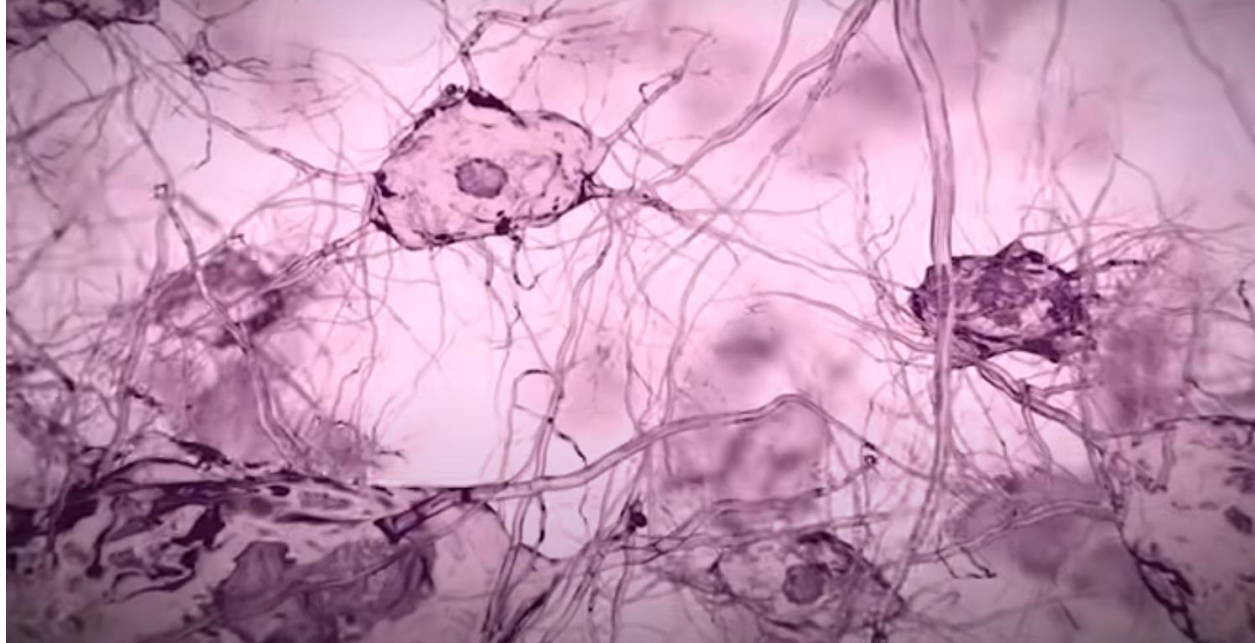


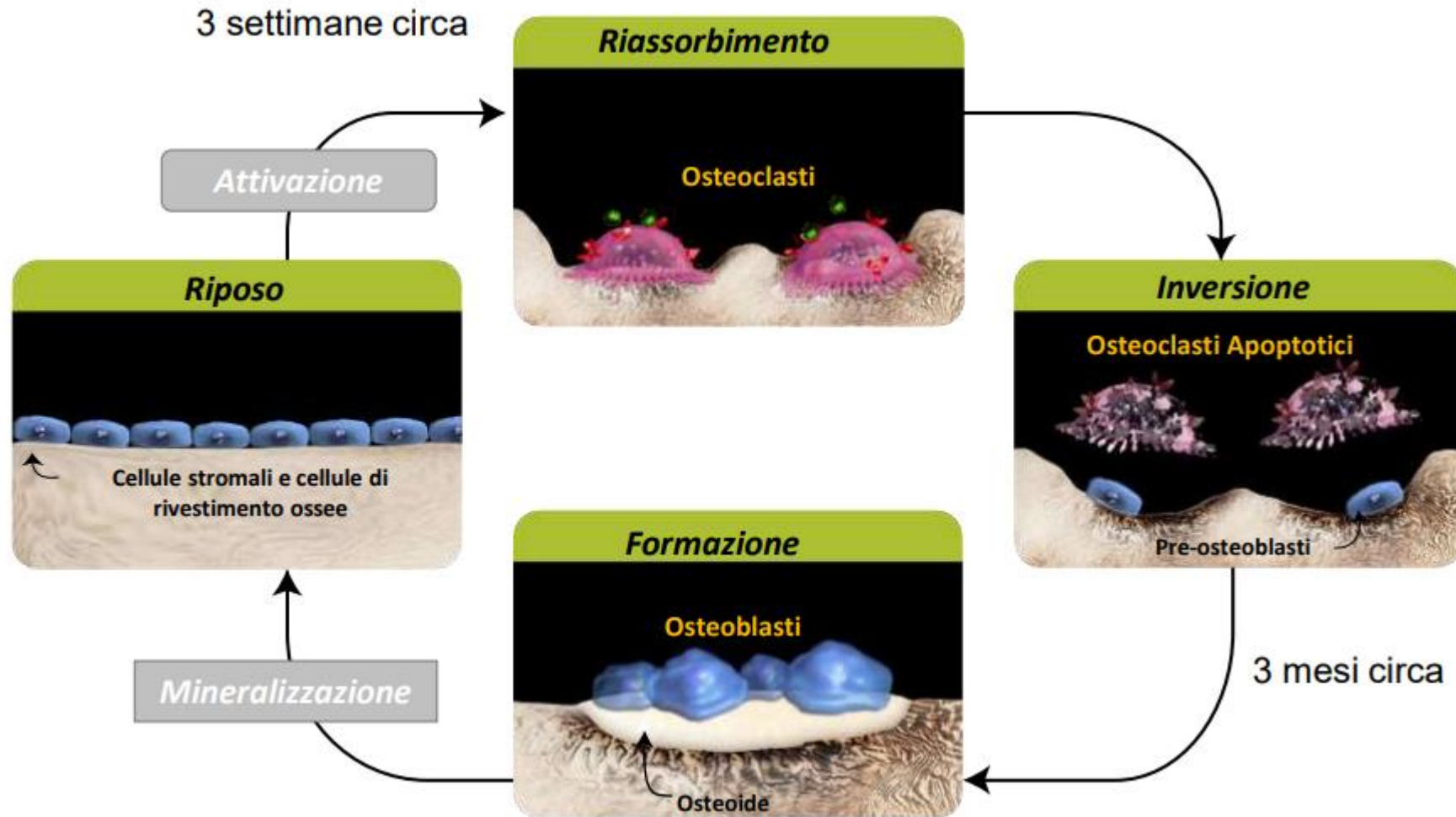


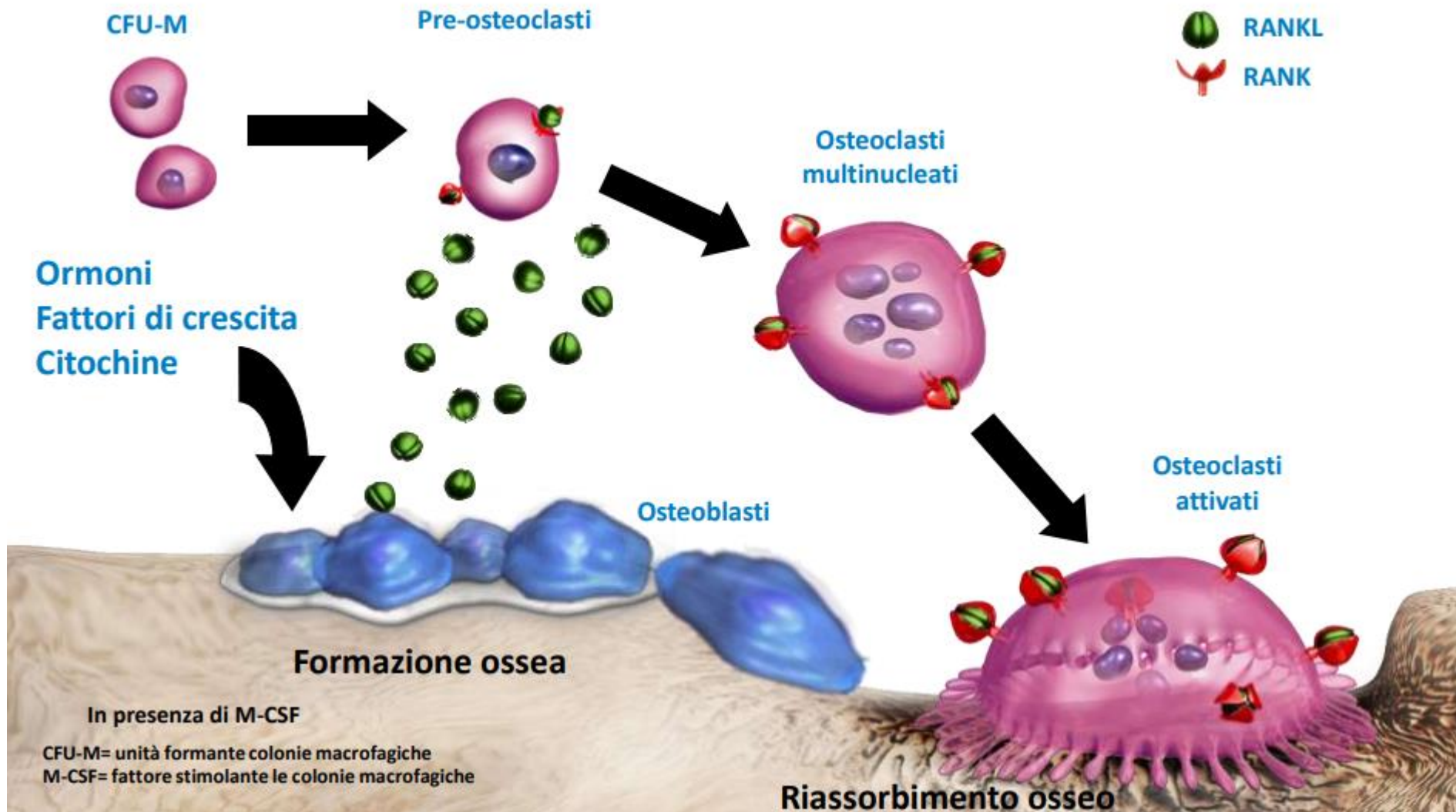
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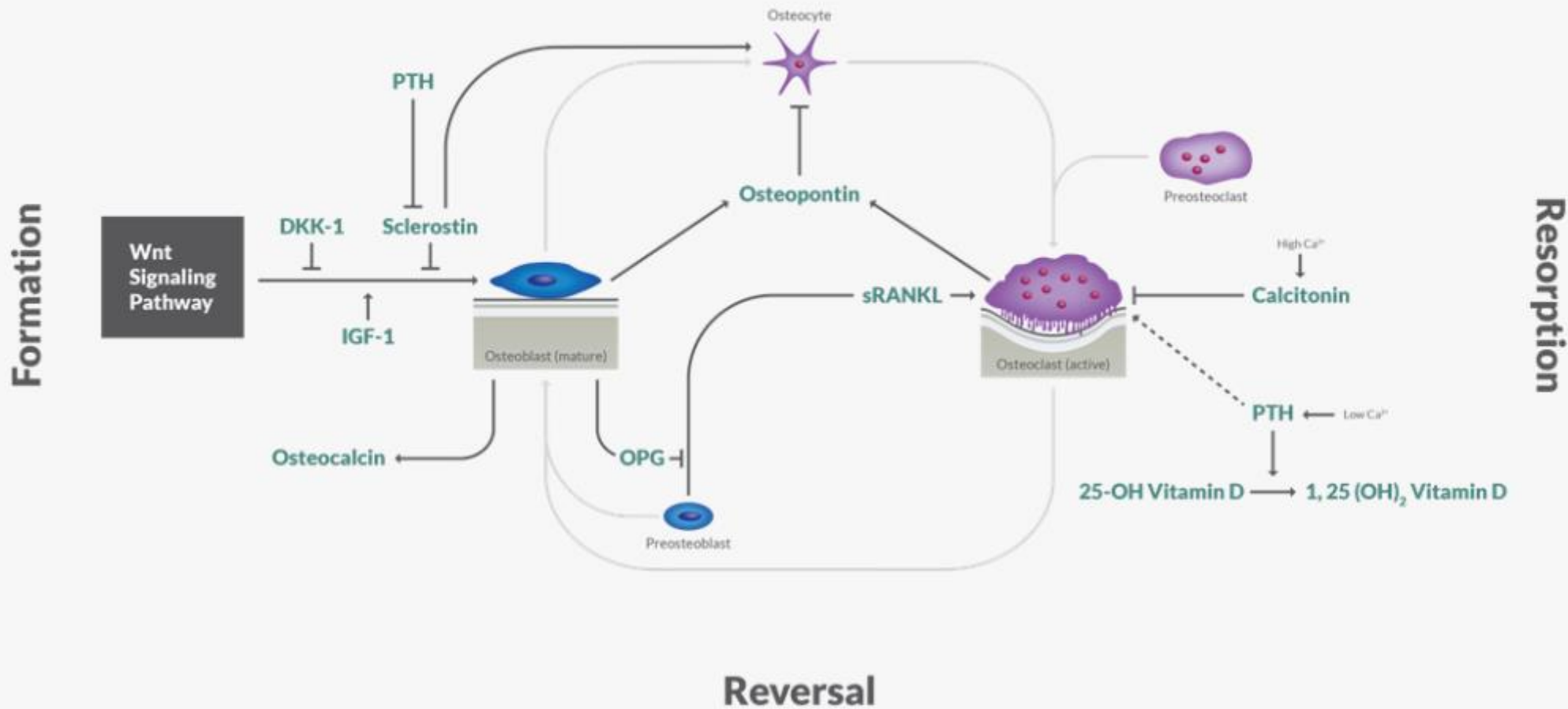






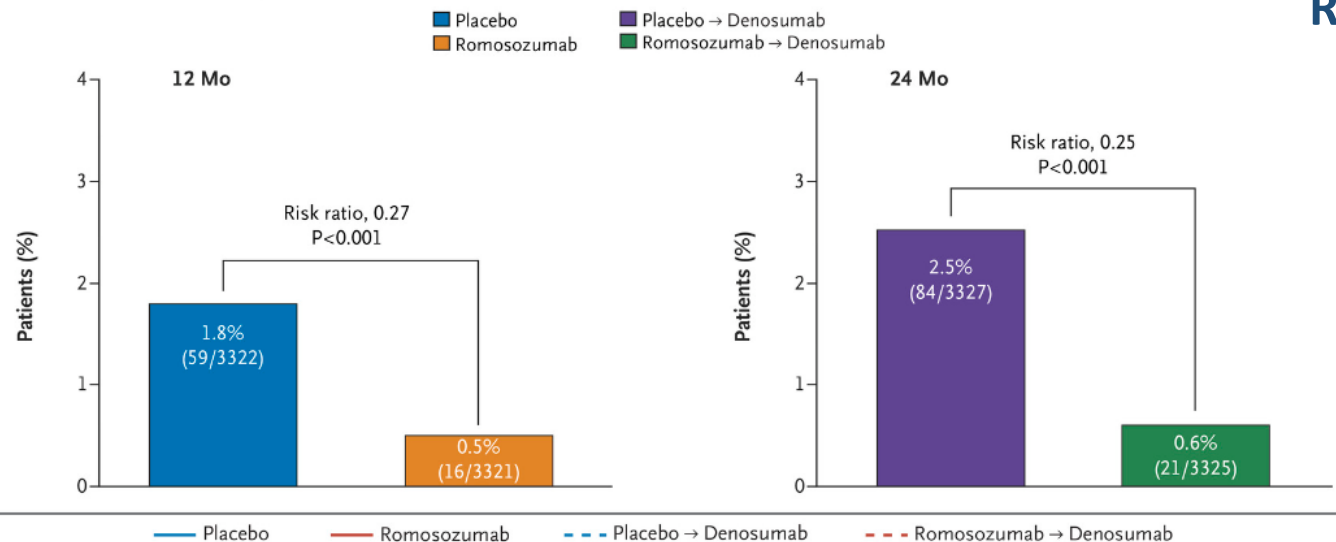
Bone Metabolism: The Cycle of Bone Growth and Resorption

Mineralization/Resting



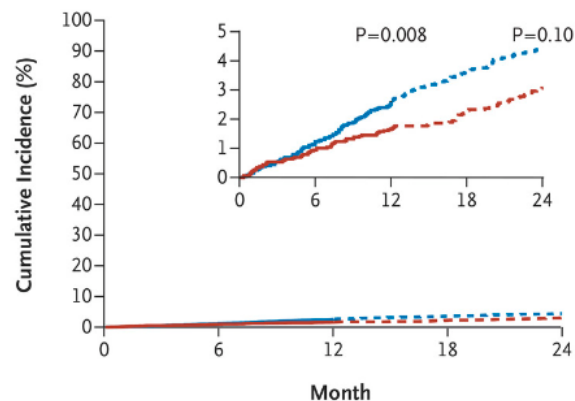


A Incidence of New Vertebral Fracture



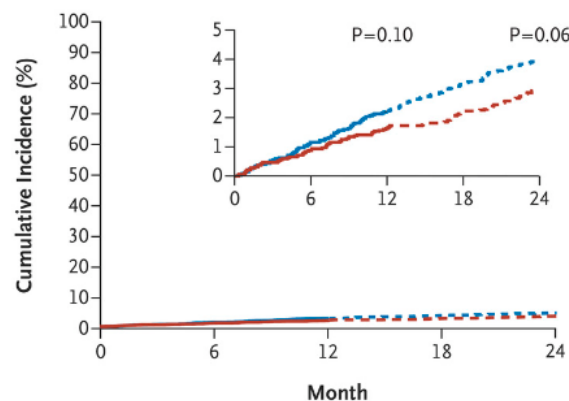
Romosozumab Treatment in Postmenopausal Women with Osteoporosis

B First Clinical Fracture in Time-to-Event Analysis



No. at Risk	0	6	12	18	24
Placebo	3591	3316	3134	3037	2955
Romosozumab	3589	3317	3148	3050	2968

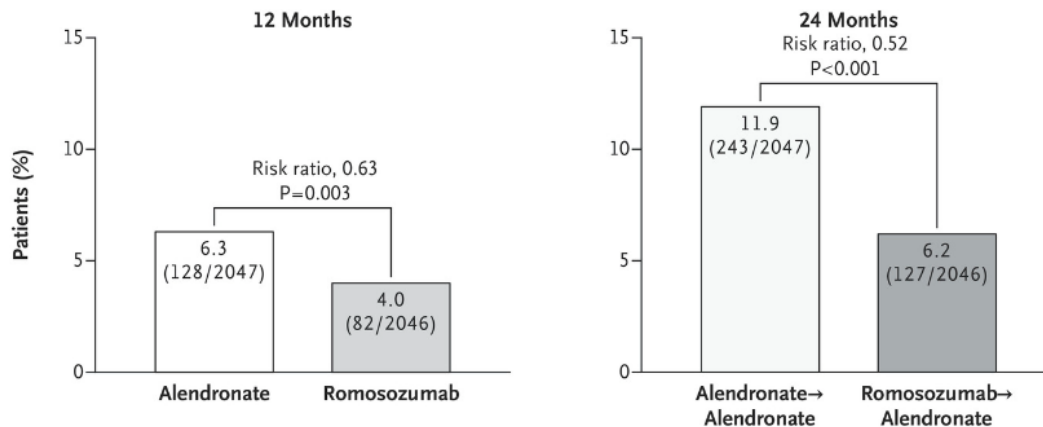
C First Nonvertebral Fracture in Time-to-Event Analysis



No. at Risk	0	6	12	18	24
Placebo	3591	3318	3145	3052	2967
Romosozumab	3589	3318	3149	3051	2970

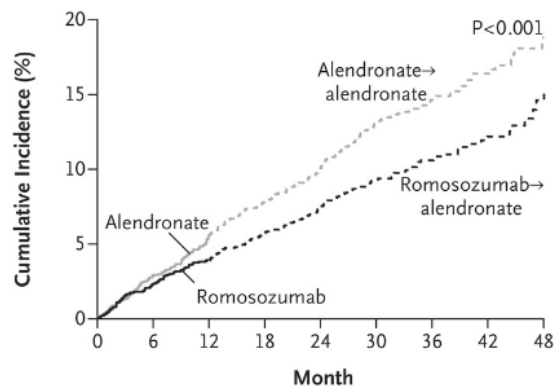


A Incidence of New Vertebral Fracture



Romsozumab or Alendronate for Fracture Prevention in Women with Osteoporosis

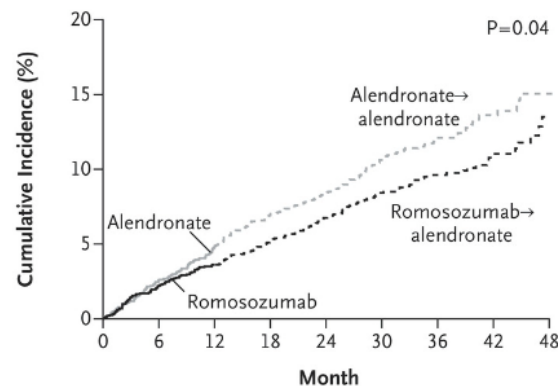
B First Clinical Fracture in Time-to-Event Analysis



No. at Risk

Alendronate	2047	1868	1743						
Romosozumab	2046	1865	1770						
Alendronate→ alendronate				1645	1564	1066	680	325	108
Romosozumab→ alendronate				1683	1615	1103	705	347	109

C First Nonvertebral Fracture in Time-to-Event Analysis

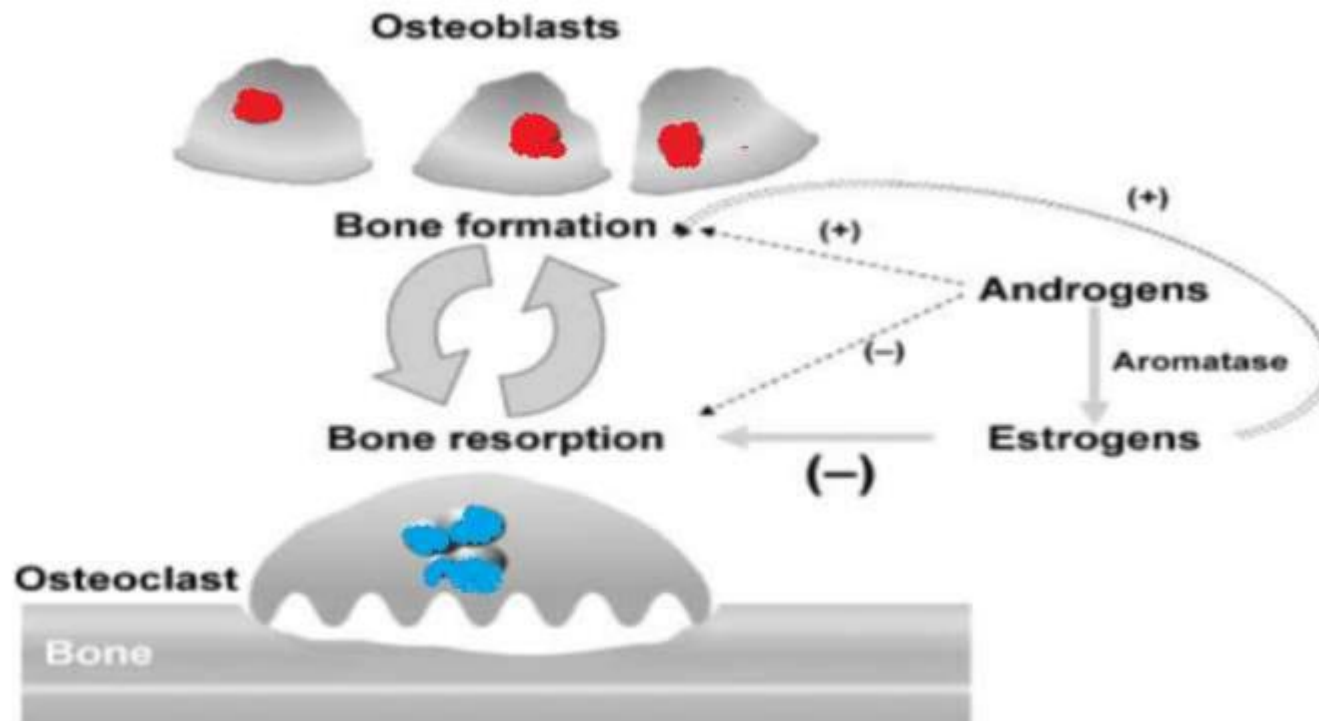


No. at Risk

Alendronate	2047	1873	1755						
Romosozumab	2046	1867	1776						
Alendronate→ alendronate				1661	1590	1097	697	330	110
Romosozumab→ alendronate				1693	1627	1114	714	350	109



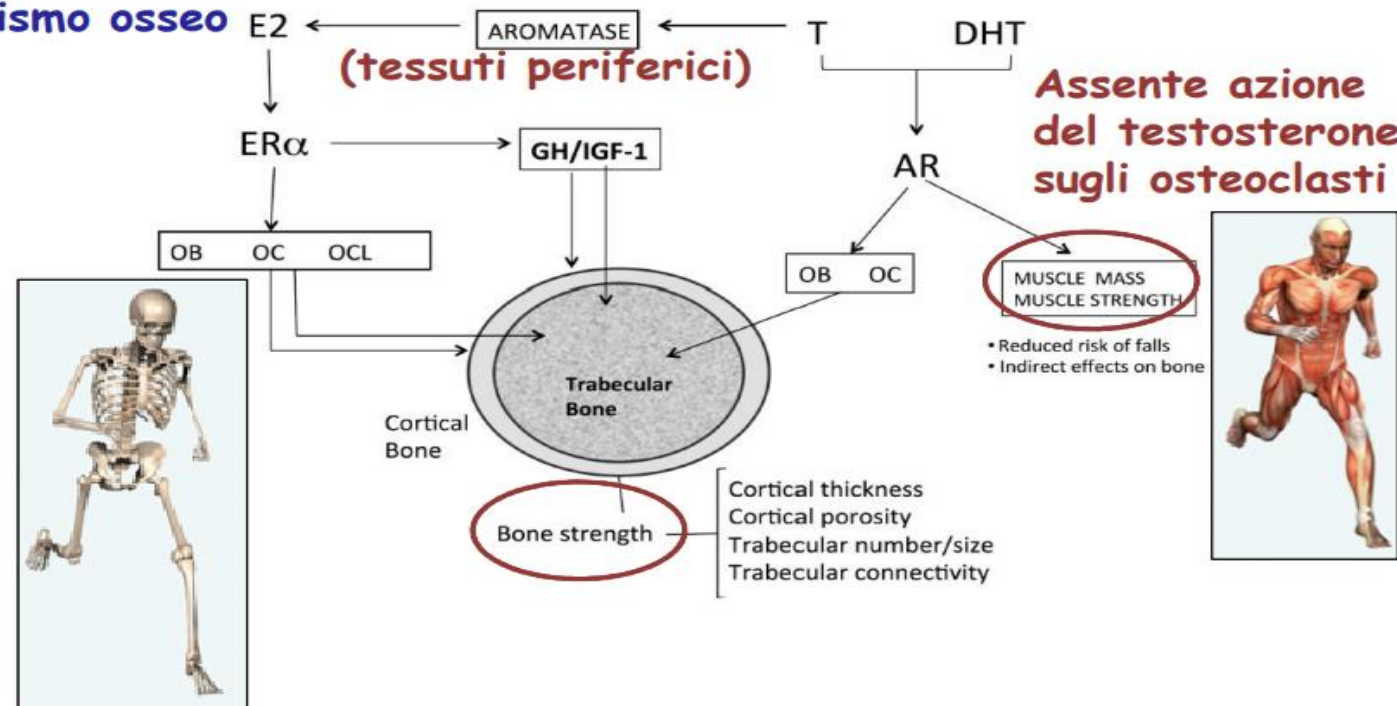
Contributo di estrogeni e androgeni al rimodellamento osseo

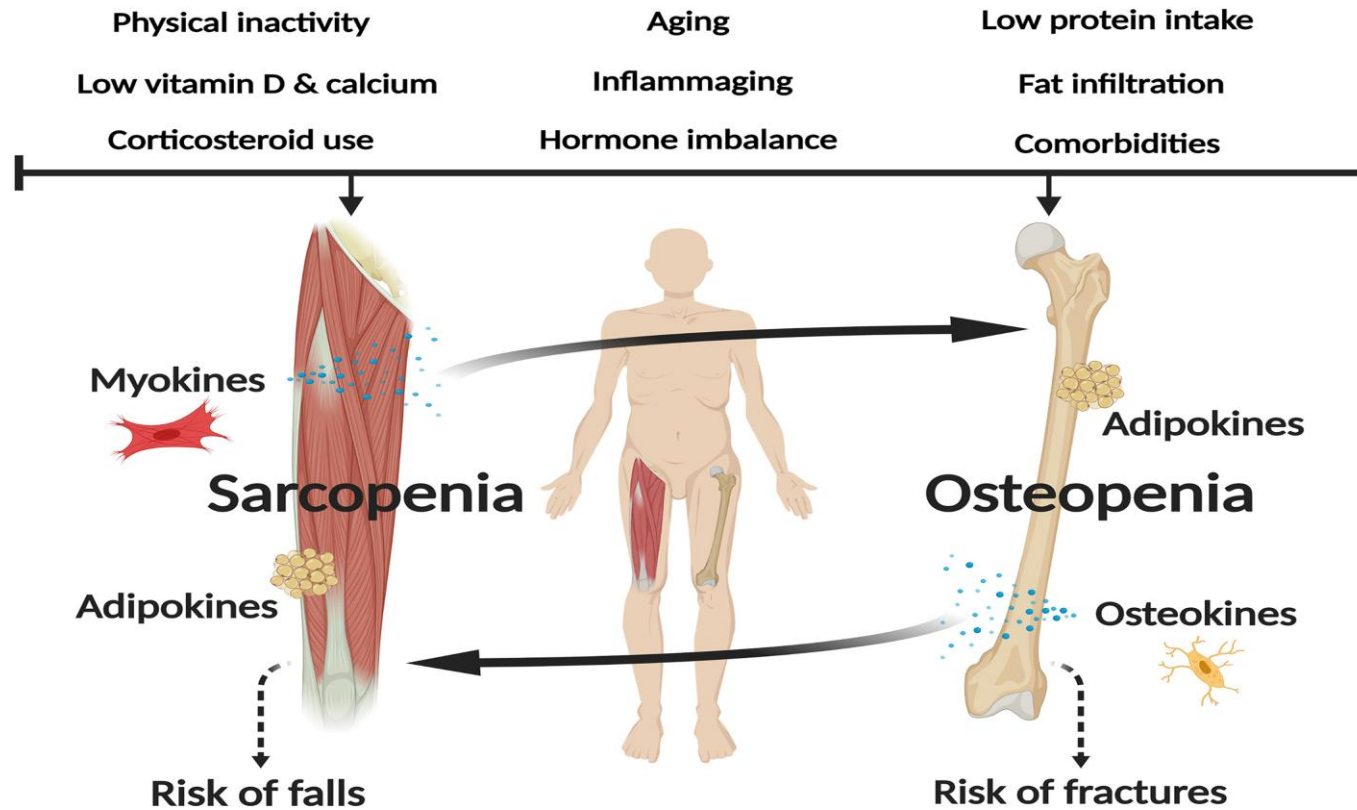




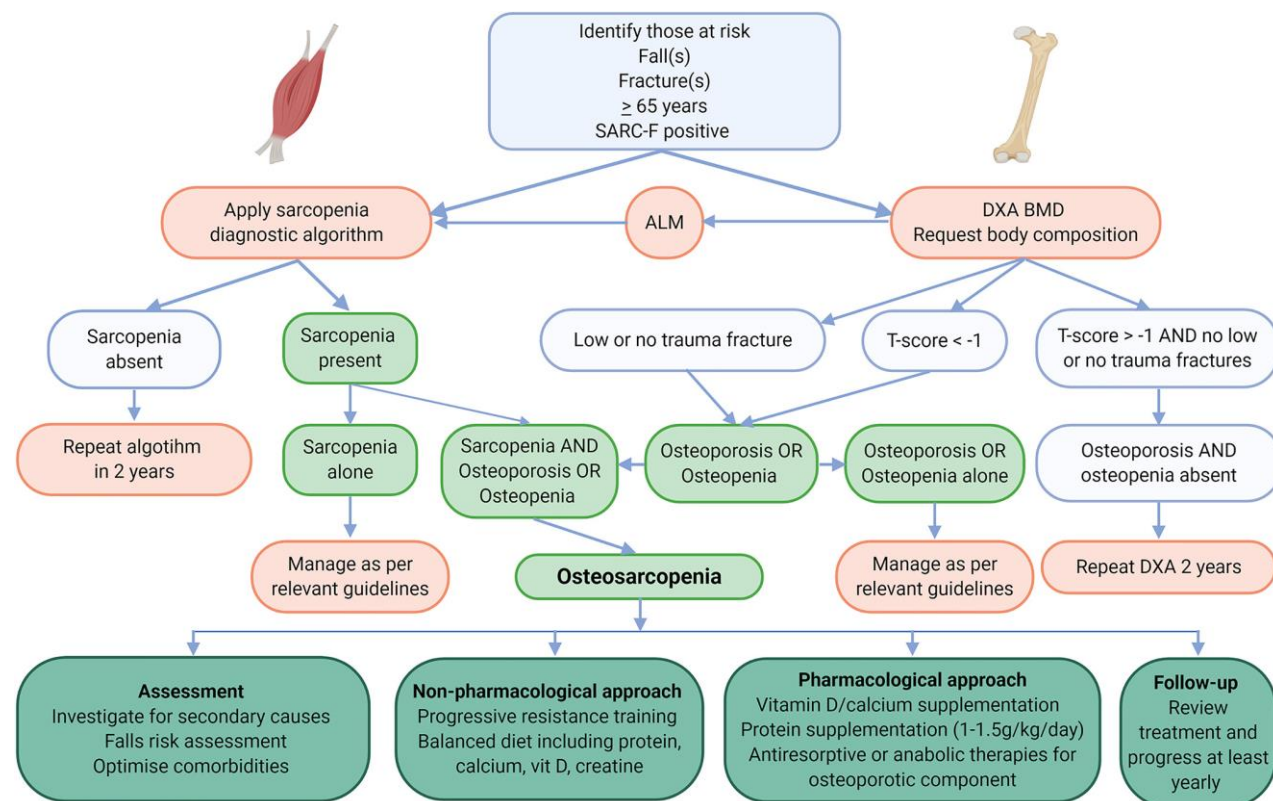
Via androgenica ed estrogenica

Via estrogenica è
la principale effettrice
del trofismo osseo



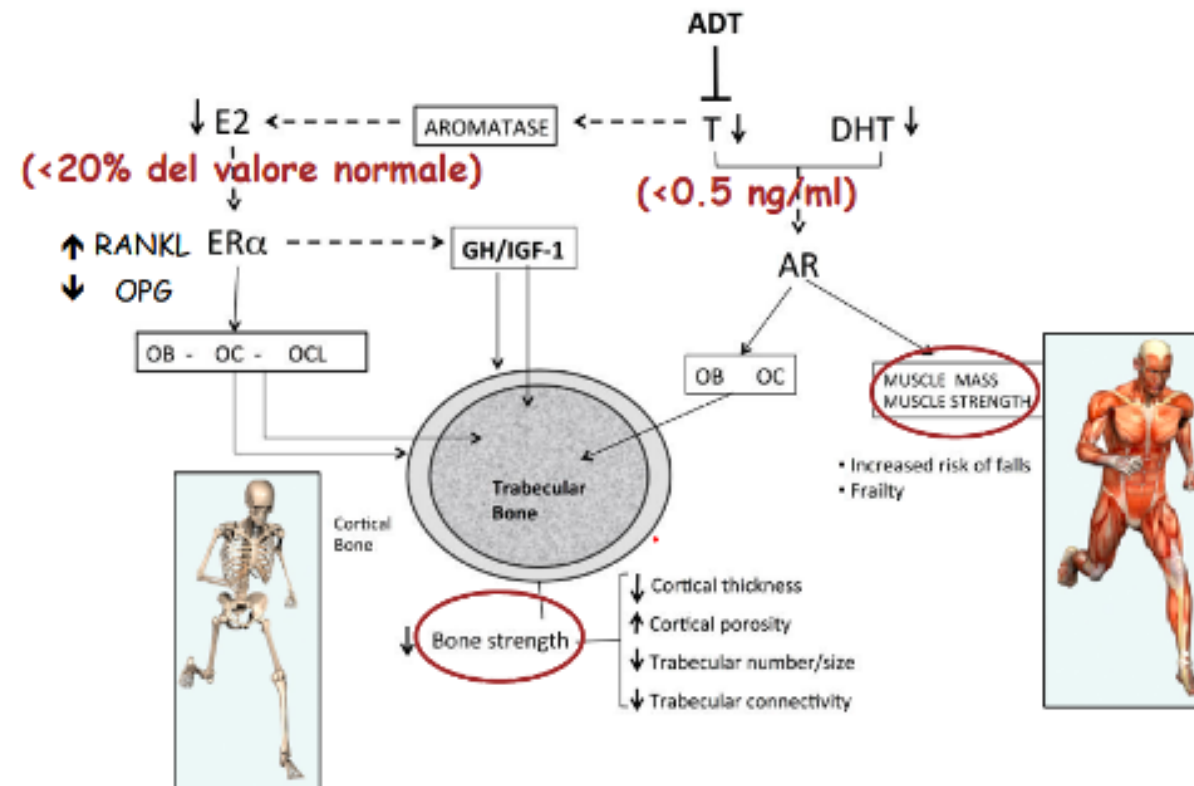


Osteo Sarcopenia





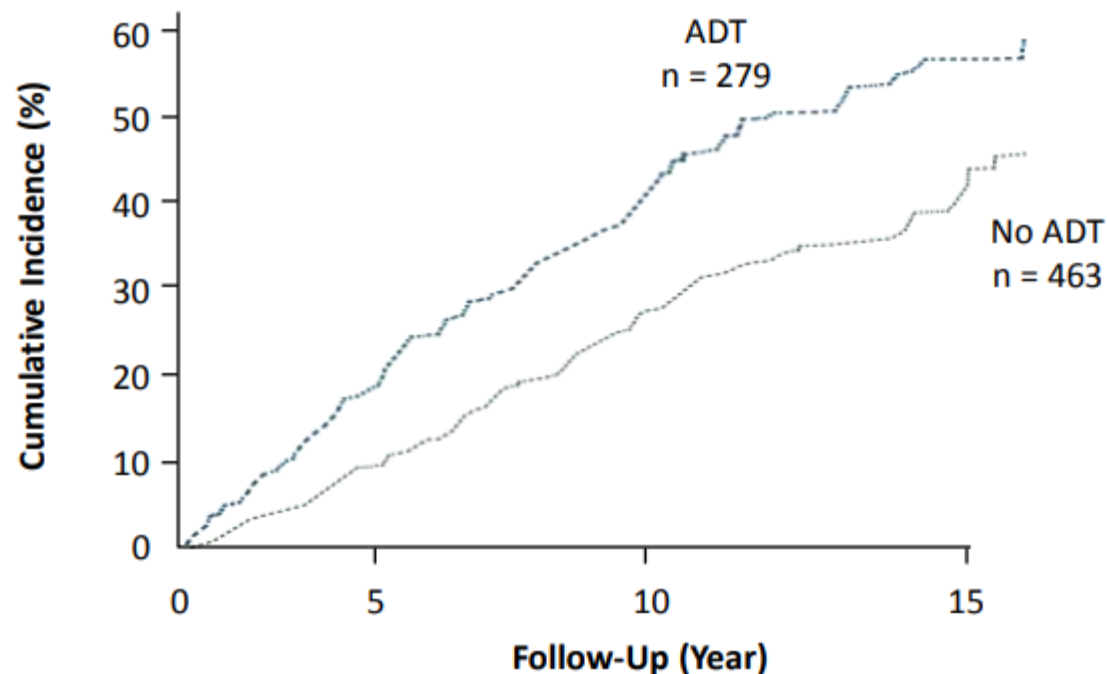
Effetti dell'ADT e AI sul sistema muscolo scheletrico





La terapia di deprivazione androgenica aumenta il rischio di fratture

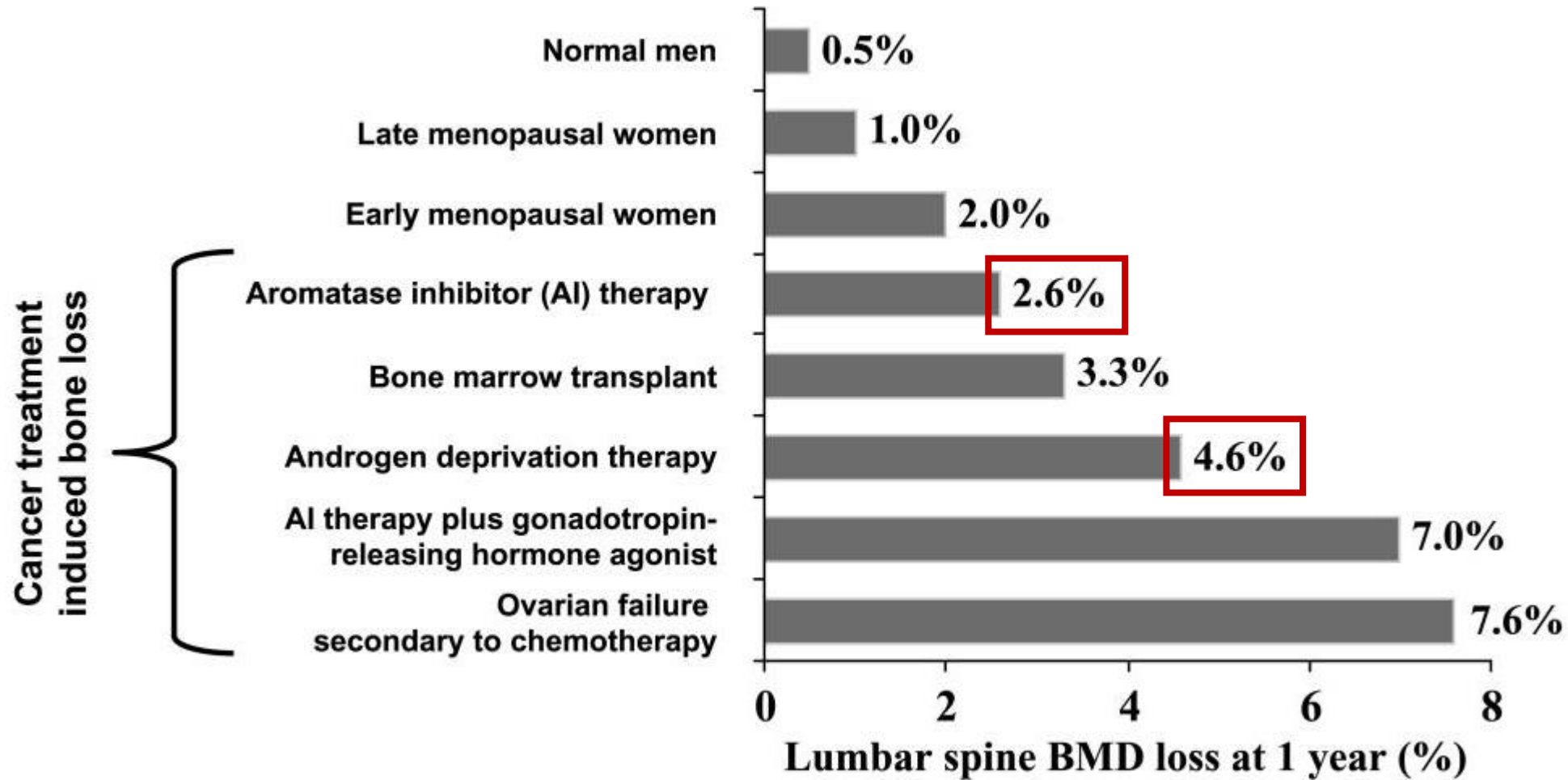
Sopravvivenza senza fratture legata ad ADT



Negli uomini che hanno ricevuto ADT, c'era un aumento del rischio del 70% di una frattura osteoporotica (HR = 1.7; IC 95%: 1.1-2.6)

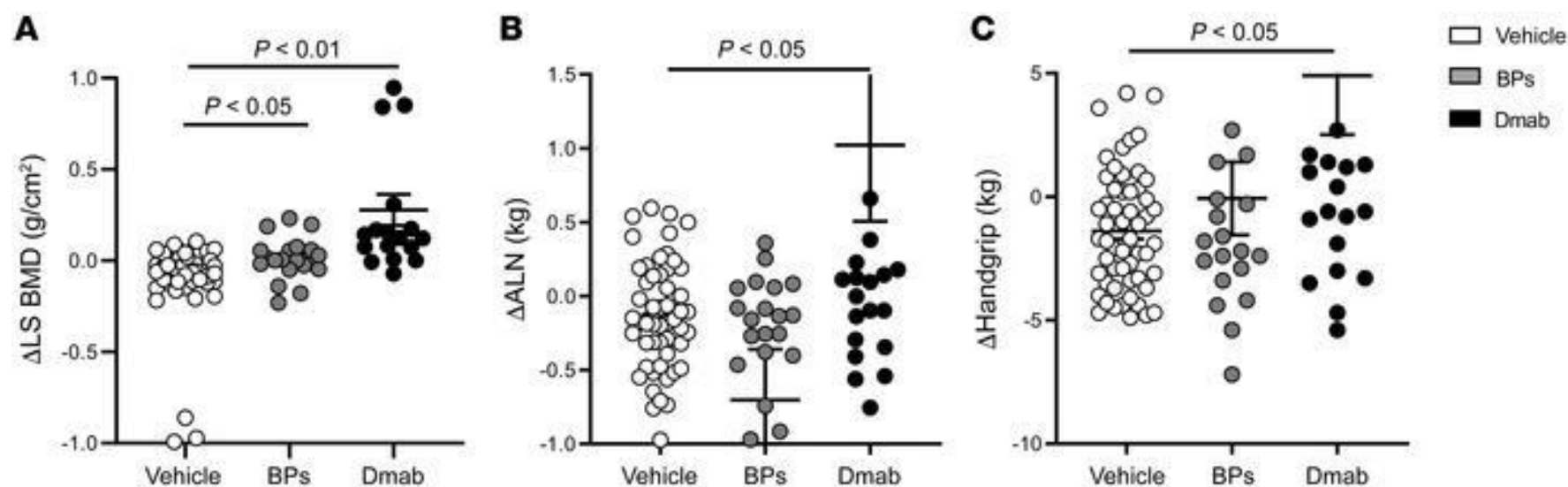
ADT = terapia di privazione degli androgeni; CI = intervallo di confidenza; HR = hazard ratio.

Dati da uno studio di coorte retrospettivo basato sulla popolazione di 742 Olmsted County, MN, uomini con cancro alla prostata diagnosticato per la prima volta nel 1990-1999 che fu seguito per 6.821 anni-persona.





RANKL inhibition improves muscle strength and insulin sensitivity and restores bone mass



(A) Delta lumbar spine bone mineral density (Δ LS BMD). (B) Appendicular lean mass (Δ ALN). (C) Delta handgrip. Control (n = 55), bisphosphonates (BPs, n = 20), denosumab (Dmab, n = 18). Statistical differences were assessed by a Kruskal-Wallis test. Bars show mean \pm SD.

