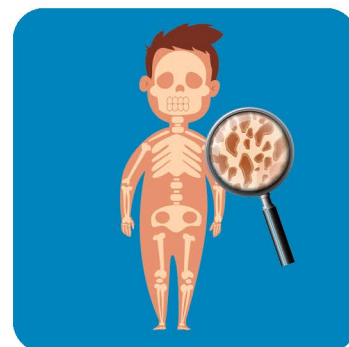


Exercise and Osteoporosis

Osteoporosis is a reduction in density and quality of bone. As bones become more porous and fragile, the risk of fracture is greatly increased. The loss of bone occurs silently and progressively with no symptoms until the first fracture occurs. This rate of loss is typically accelerated in post-menopausal females.



In Hong Kong



Data from the Census and Statistics Department in Hong Kong shows there were 53,900 persons reported to have suffered from osteoporosis in 2014. Among them, 84% were females.

Why Can Exercise Help?



Exercise can help diminish pain and slow deterioration of the joint. Muscle strength and joint stability can be improved through resistance and aerobic exercises. This results in maintaining a healthy body composition and most importantly improved quality of life.

Exercise Recommendations

Aerobic Exercise



Be active on three to five days per week.



Start with 10 mins of exercise. Gradually building it up to 30 mins of exercise.



Exercise on a fairly light to moderate intensity level.



Weight bearing exercises, including walking, hiking, jogging.

Resistance Training



Do resistance training two or three times per week.



Exercise at a light intensity, below the pain threshold.



Target to finish 2-4 Sets of 10-15 Reps for each exercise.



Try using body weight exercises, resistance machines, elastic bands or free weights.

A combination of aerobic and resistance training leads to the BEST health outcomes

Tips for Getting Started

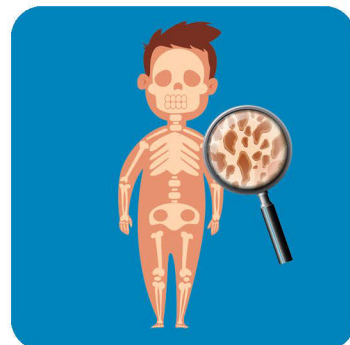
- Avoid exercises that cause you to twist, use dynamic abdominal muscles (like sit-ups) or make excessive trunk flexion (like touching toes or rowing).
- Also avoid high-impact or contact activities if you have osteoporosis. They may overload your bones or put you at risk of falling. Simple balance exercises are easy to do and can help a lot.
- Maintain a good diet, with enough Vitamin D (egg yolk, milk or sun exposure) and calcium (1000mg/day).

References

- 1) Bow, CH, Cheung, E, Cheung, CL, Xiao, SM, Loong, C, Soong, C, Tan, KC, Luckey, MM, Cauley, JA, Fujiwara, S & Kung, AWC 2012, 'Ethnic difference of clinical vertebral fracture risk', Osteoporos Int, vol. 23, pp. 879-885.
- 2) Tsang, SWY, Kung, AWC, Kanis, JA, Johansson, H & Oden, A 2009, 'Tenyear fracture probability in Hong Kong Southern Chinese according to age and BMD femoral neck T-scores', Osteoporos Int, vol. 20, pp. 1939-1945.

運動與骨質疏鬆症

骨質疏鬆是指骨密度和質量下降的病症，患者的骨骼結構變得脆弱，因而增加骨折的風險。患者一般沒有病徵，直到發生骨折才會被發現。在停經後，骨質會因女性荷爾蒙減少而加速流失，所以骨質疏鬆症較常見於更年期後的女性。



本地情況



根據香港政府統計處2014年的報告顯示，本港有53,900人患有骨質疏鬆症。女性患骨質疏鬆症的比率高於男性，佔整體的84%。

運動怎麼可改善？



運動阻力和有氧運動能增強肌力和關節穩定性，維持健康的體脂比例，因而舒緩關節疼痛和減慢惡化，有助改善生活質素。

運動建議

有氧運動



每週運動次數：每周3-5次。



運動時間：由10分鐘低至中強度運動作開始，逐漸延長至30分鐘。



運動強度：低至中強度。



運動模式：任何負重運動，包括步行、遠足



每週運動次數：每周2-3次。



每次運動時間：每次2-4組，每組10-15次。



運動強度：低強度，動作並不造成痛楚。



運動模式：徒手訓練，器械訓練、阻力帶或自由重量。

開始時注意事項

- 應避免軀幹旋轉或軀幹過度屈曲的動作，如仰臥起坐、軀幹前彎觸摸腳尖或划船等。
- 應避免高撞擊性或有身體碰撞的活動，這類活動會增加骨骼負荷及跌倒的風險，簡單的平衡訓練能有效預防跌倒。
- 保持良好的飲食習慣，每天補充1000毫克鈣質。攝取維他命D有助身體吸收鈣質，攝取途徑包括身體接觸陽光或從食品中攝取，如蛋黃、牛奶等。

參考資料

- 1) Bow, CH, Cheung, E, Cheung, CL, Xiao, SM, Loong, C, Soong, C, Tan, KC, Luckey, MM, Cauley, JA, Fujiwara, S & Kung, AWC 2012, 'Ethnic difference of clinical vertebral fracture risk', Osteoporos Int, vol. 23, pp. 879-885.
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