

## Exercise and Low Back Pain

Lower back pain (LBP) is one of the most common medical complaints in the world. Lower back pain can be defined as pain and discomfort, localized below the costal margin and above the inferior gluteal folds, and may be accompanied by pain in the legs. Though there are many causes of LBP, most are mechanical resulting from overloading or injuring the back. LBP can be acute (less than three months) and chronic (more than three months). For both types you should avoid any movement or activity that causes symptoms or pain.



### In Hong Kong



In Hong Kong, an estimated 57.1% of the population suffered from low back pain at least once in their lifetime. Research also shows that it is a common reason for people seeking health care and was the second most prevalent illness caused by work and the commonest illness made worse by work.

### Why Can Exercise Help?



Staying active can help people to manage their low back pain. Strength training improves muscle strength, particularly in the small muscles that stabilize the lower back, which help in preventing future back pain episodes. Adding stretching exercises helps to increase the range of motion for the back muscles and reduce stress on the back.

## Exercise Recommendations

### Aerobic Exercise



Be active for at least three days a week.



Exercise at a fairly light to somewhat moderate level.



Start with 10 mins, gradually build up to 30-60 mins over the day.



Do low-impact exercises like walking and swimming.

### Resistance Training



Two or three days per week. Rest in between.



Exercise with light effort and slowly build up.



Aim for 2-4 Sets of 10-15 Reps. Build up to 8-12 Reps with a higher Load.



Target major muscle groups using free weights or machines.

### Stretching Exercise



Two to seven days per week.



Slow and steady movements without bouncing. Stretch just to the point of mild discomfort.



Hold for 10-30 secs (30-60 secs for older adults). Aim for 10-15 mins at a time.



Warm-up with dynamic stretch, cooldown with static stretch.

### Tips for Getting Started

- Avoid high-impact activities, such as running. Instead choose low-impact activities, like walking or swimming.
- Modify activities to reduce stress to the lower back, especially at first. Avoid any movement or activity that causes symptoms or pain.
- Exercise is a key part of the treatment, so try to return to normal levels of activity as soon as feasible. Avoid bed rest except during times of severe pain.

### References

- 1) Manipulative Physiol Ther. 2004; 27(4):238-44.
- 2) Cheng, L. & Lau, K.K.S. & Lam, W.K. & Lau, D.M.W. & Ng, M.Y. & Lau, P.L. & Wong, W.M. & Ho, C.H.. (2012). Evidence-based guideline on prevention and management of low back pain in working population in primary care. Hong Kong Practitioner. 34. 106-115.
- 3) Australian Acute Musculoskeletal Pain Guidelines Group. 2003. Australian Academic Press.
- 4) Hides JA, Jull GA, Richardson CA. Multifidus muscle recovery is not automatic after resolution of acute, first-episode low back pain. Spine 1996; 21(23):2763-9.
- 5) Green, J. (n.d.). Exercise Guidelines for Clients with Lower Back Pain : NCHPAD - Building Inclusive Communities. Retrieved March 19, 2020, from <https://www.nchpad.org/887/5010/Exercise~Guidelines~for~Clients~with~Lower~Back~Pain>



## 運動與腰背痛

腰背痛是常見的健康問題，它可定義為腰背肋骨對下至臀部及大腿後側範圍所發生的痛楚。儘管腰背痛的成因很多，但大多數是由意外創傷，或姿勢不良引致勞損造成的。腰背痛可歸類為急性（少於三個月）和慢性（超過三個月）兩種類型。無論什麼類型，都應避免可引起症狀或疼痛的活動。



### 本地情況



在香港，約有多達57%的人，最少會經歷一次腰背痛。研究顯示腰背痛亦是排名第二的工傷原因。

### 運動怎麼可改善？



保持活躍可減輕腰痛。而力量訓練則可以強化肌肉，增強身體軀幹的承托力，尤其以保護腰椎的下背肌肉為重點。強化軀幹能減少再次受傷及腰背痛復發的機會。適當的伸展運動有亦助於放鬆繃緊的組織及減少背部壓力。

## 運動建議

### 有氧運動



每週運動次數：目標至少維持三天運動。



每次運動時間：從每天10分鐘開始，逐漸累積至每天30-60分鐘。



運動強度：輕至中強度。



運動模式：選擇低撞擊性的運動，例如散步和游泳等。

### 阻力訓練



每週運動次數：每周至少兩天，兩節課之間休息最少一天。



每次運動時間：以大肌肉及核心肌為主，可組合約6個動作，並各完成2-3組，每組10-15次。



運動強度：低強度開始。



運動模式：針對所有主要肌肉群及核心肌的自由重量或器械阻力訓練。

### 伸展運動



每週運動次數：每週兩至七天。



每次運動時間：每次伸展保持10到30秒（長者應保持30到60秒）。整個程序大約10-15分鐘。



運動強度：動作緩慢而平穩，伸展至肌肉感覺輕度緊張的程度。



運動模式：通過動態伸展進行熱身，並利用靜態伸展進行緩和運動。

### 開始時注意事項

- 避免高撞擊性(如跑步)的活動。並選擇較低撞擊性的活動，如散步或游泳。
- 需要時，可調整活動以減輕腰部壓力。尤其是在剛開始時，避免任何可能引起症狀或疼痛的活動。
- 運動是治療的關鍵部分，因此，除劇烈疼痛外應避免長期臥床休息。

### 參考資料

- 1) Manipulative Physiol Ther. 2004; 27(4):238-44.
- 2) Cheng, L. & Lau, K.K.S. & Lam, W.K. & Lau, D.M.W. & Ng, M.Y. & Lau, P.L. & Wong, W.M. & Ho, C.H.. (2012). Evidence-based guideline on prevention and management of low back pain in working population in primary care. Hong Kong Practitioner. 34. 106-115.
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