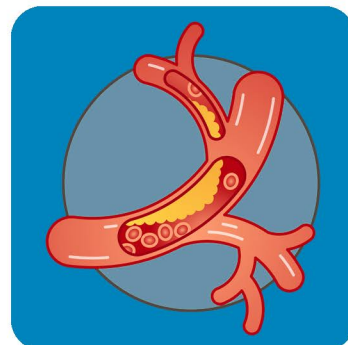


Exercise and Hyperlipidemia

Hyperlipidemia, also known as high cholesterol, is the elevation of different lipoprotein concentrations such as cholesterol and triglycerides within the blood, which is due to a high level of LDL (bad) cholesterol or a low level of HDL (good) cholesterol in your blood. The combined effects of gender, age, body fat distribution, diet, smoking, some medications, genetics, and regular physical activity can affect blood lipid levels and subsequent coronary artery disease risk.



In Hong Kong



Hyperlipidaemia is a disease with both a high incidence and prevalence rate in Hong Kong. In the 2014/15 population health survey, the prevalence of high cholesterol for people aged 15 to 84 in Hong Kong was 49.5%. This condition is associated with a high morbidity and mortality.

Why Can Exercise Help?



Exercise helps in lowering triglycerides and increasing “good” HDL cholesterol levels. The latter is involved in the reverse transport of cholesterol from the peripheral tissues back to the liver. An improved cholesterol profile can be seen with exercise with a low-fat diet, weight loss and reduction in central adiposity.

Exercise Recommendations

Aerobic Exercise



Stay active on most days of the week, aiming for more than 5 days per week.



Accumulate 30 minutes or more of continuous or intermittent exercise per day.



Start with low intensity (40% HRR) and gradually increase the intensity (80% HRR).



Moderate level exercises include brisk walking, light cycling, water exercises or dancing.

Resistance Training



At least 2 days per week, non-consecutive days.



Exercises at a light-moderate level or below pain threshold.



2-3 sets of 10-15 reps of major muscle group exercises.



Body weight exercises, exercise machines or free weights exercises.

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

Tips for Getting Started

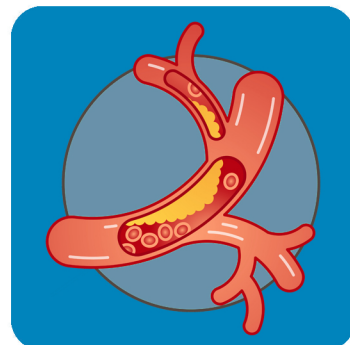
- Exercise is only part of your program to change your blood lipids. Changes in diet and medication also are required for success.
- Choose low-impact activities that you enjoy, such as walking, cycling or water exercises. Remember that duration is more important than intensity.
- If you have been inactive for a long time, start with short sessions, gradually build up the intensity and duration of your exercise sessions.

References

- 1) Report of population health survey 2014/2015. Surveillance and Epidemiology Branch, Centre for Health Protection, Department of Health, HKSAR
- 2) Executive summary of the third report of the National Cholesterol Education Program (NCEP). Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). JAMA. 2001;285(19):2486-2497. [Online]. Available at www.nhlbi.nih.gov/chd
- 3) Grundy SM, Cleeman Jr, Merz CNB, et al. Implications of recent clinical trial for National Cholesterol Education Program Adult Treatment Panel III guidelines. Circulation. 2004;110:227-239.

運動與高血脂

高血脂，俗稱高膽固醇，是血液中不同脂蛋白濃度（例如膽固醇和三酸甘油酯）水平的異常升高。這是由於血液中低密度脂蛋白(LDL)，也稱壞膽固醇的水平偏高，或高密度脂蛋白(HDL)，也稱好膽固醇的水平偏低所致。性別，年齡，體內脂肪分佈，飲食，吸煙，藥物使用，遺傳和運動水平等不同因素皆會影響血脂水平和冠心病風險。



本地情況



高血脂與多種疾病的形成和死亡有密切關係。在香港，高血脂是一種發病率高的流行病。2014/15年度的人口健康調查顯示，本港15至84歲的人口中患有高膽固醇的比率為50%。

運動怎麼可改善？



運動有助於降低三酸甘油酯並增加高密度脂蛋白(HDL)水平: HDL可移除堆積在外週組織血管壁中過多的膽固醇，反向傳送回肝臟。低脂飲食，適當運動，減重和降低中央肥胖，是改善高膽固醇狀況的上策。

運動建議

有氧運動



每週運動次數: 每周大部分時間保持活躍，目標是維持五到七天運動。



運動時間: 每天進行30分鐘或以上連續或間歇運動。



運動強度: 從低強度開始(40%心率儲備)逐漸增加到中高強度(80%心率儲備)。



運動模式: 用大型肌肉群（如步行，騎自行車或游泳）進行長時間，連續的活動。

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: 目標是改善力量和肌肉耐力，以大肌肉為主，可組合約6個動作，並各完成2-3組，每組8-12次。



運動強度: 中強度。



運動模式: 針對所有主要肌肉群的自由重量或器械阻力訓練。

開始時注意事項

- 恆常運動是改善血脂的一環。成功需要加入改變飲食習慣和遵守處方藥物。可選擇低撞擊性的活動，如散步，騎自行車或進行水上運動等。請記住: 持續時間比運動強度更重要。
- 如長時間沒有運動，請從短時間的訓練開始，並逐步增加運動的持續時間和強度。

參考資料

- 1) Report of population health survey 2014/2015. Surveillance and Epidemiology Branch, Centre for Health Protection, Department of Health, HKSAR
- 2) Executive summary of the third report of the National Cholesterol Education Program (NCEP). Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). JAMA. 2001;285(19):2486-2497. [Online]. Available at www.nhlbi.nih.gov/chd
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