「起動、靜養、身心靈」計劃

運動與身心健康的關係

2023年2月16日星期四

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身心伸展熱身運動

1. 會心微笑 (Smile)

2. 慢動作 (Slow)

3. 按步就班 (Step-by-step)

目標 => 1. 恆常體能活動

2. 減少靜態行為

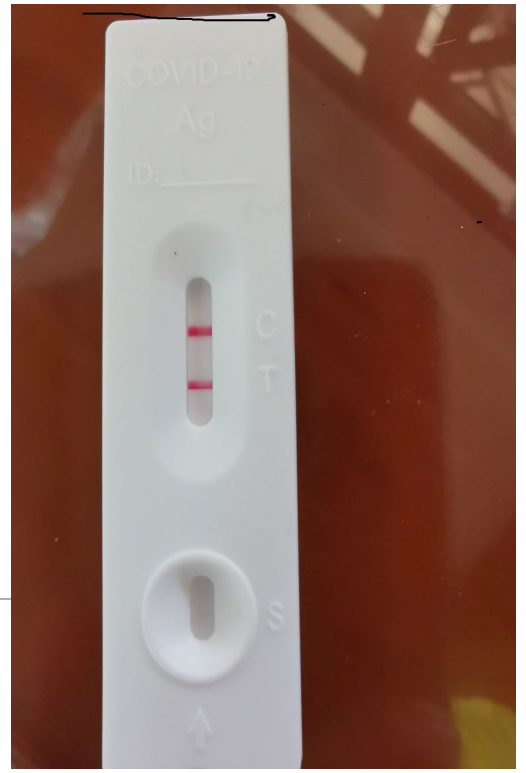
Stay Happy Stay Healthy !

「起動、靜養、身心靈」計劃

我的座右銘

1）在疫情下仍能有健康身體

＝對自己和家人最大的祝福



2) 喜樂的心是良藥 =>

好的情緒+正面思維

可以提升免疫力

3) 運動是良藥 =>

可以怎樣維持健體習慣？


5
4
3

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GWANGJU
Fina
DIVE INTO PEACE
Seoul Tent
KIA
광주은행
WATER IS OUR WORLD


作者 楊慶新 田湘桂教練
程偉健博士 呂宇俊博士
暢「游」人生下半場
重奪人生的金牌

「起動、靜養、身心靈」計劃

鮪魚肚

請問相片中是您嗎？

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減肥的效果

１磅脂肪	＝	３５００卡路里
步行１英哩	＝	１００卡路里
減１磅	＝	３５英哩
		（１４０個圈）

辛苦！辛苦！辛苦！

OPEN

The Health Benefits of Resistance Exercise: Beyond Hypertrophy and Big Weights

Sidney Abou Sawan, Everson A. Nunes, Changhyun Lim, James McKendry, and Stuart M. Phillips

ABSTRACT

It is well established that exercise is associated with a reduced risk of several chronic diseases. Currently, aerobic training (AT) receives primary attention in physical activity guidelines with a recommendation for ~150 min of moderate-to-vigorous AT weekly. In most physical activity guidelines, resistance training (RT) is termed a beneficial activity, with a recommendation to engage in strengthening activities twice weekly. However, we propose that the health benefits of RT are underappreciated. There is evidence, established and emerging, that RT can, in many respects, elicit similar health benefits to AT. When combined, AT and RT may yield ostensibly optimal health benefits versus performing either exercise exclusively. We discuss the health benefits of engaging in RT, including healthy aging, improved mobility, cognitive function, cancer survivorship, and metabolic health in persons with obesity and type 2 diabetes—all of which can influence morbidity and mortality. Many of the health benefits of RT can be achieved by lifting lighter loads to volitional failure, highlighting that the benefits of RT do not necessarily require lifting heavier weights. Accumulating evidence also shows a lower mortality risk in those who regularly perform RT. To optimize health, especially with aging, RT should be emphasized in physical activity guidelines in addition to AT.

Keywords: skeletal muscle, type 2 diabetes, cancer, aging, cognitive function

INTRODUCTION

As a form of physical activity, exercise is generally dichotomized into resistance training (RT) and aerobic training (AT) categories. Although there is overlap between the two modalities, the intensity and duration of exercise produce distinct molecular signals that result in divergent phenotypic adaptions (1). For example, the phenotypic adaptations associated with RT are underpinned by the synthesis of new myofibrillar and mitochondrial proteins that increase muscle size and endurance, respectively (1). Prescription of RT and AT programs is often based on a relative percentage of maximal strength (i.e., single-repetition maximum (1RM)) and oxygen consumption (i.e., peak oxygen uptake ($\dot{V}O_{2peak}$) or maximum heart rate (HR_{max})). For example, lifting heavier loads (>70% of 1RM) of RT is recommended to build muscle mass (2), whereas both moderate-intensity continuous exercise (~70% of HR_{max}) and high-intensity interval training (~85%–90% of HR_{max}) can induce AT adaptations (3). However, there is emerging evidence that, in addition to increasing muscle size and strength, RT can induce mitochondrial adaptations that are typically associated with AT (4). For example, performing RT with lower loads (i.e., ~30% of 1RM) to volitional fatigue induces an increase in mitochondrial proteins and muscle oxidative capacity (4). Importantly, lower load RT offers an alternative to RT with heavier loads in populations in which traditional RT is neither preferred nor warranted (e.g., aging, cancer). To reduce chronic disease risk, AT remains at the forefront of physical activity guidelines, highlighted by a prescription of ~150 min of moderate-to-vigorous or 75 min of vigorous AT weekly (5). Although RT is recommended in the current physical activity guidelines, there is emerging evidence demonstrating that RT alone or when combined with AT is equal or superior to AT alone in maximizing health. Here, we highlight some of the numerous health benefits of RT (Fig. 1), which extend far beyond muscle hypertrophy and the requirement to lift heavy weights.

MOBILITY AND FALLS

The global population is aging, and those older than 70 yr are the most rapidly expanding population demographic. Aging is associated with sarcopenia, the age-related loss in muscle mass, strength, and function, which is inversely related to morbidity and mortality (6). The treatment costs associated with sarcopenia in the US health system are ~$19 billion per year in direct (e.g., hospitalization due to falling) and indirect (e.g., injury-related work disability) costs (7). Severe falls reduce the quality of life and exacerbate cognitive function declines, which reduce independence (8). Importantly, lifelong physical activity can help attenuate declines in muscle mass and strength (6). Unsurprisingly, RT improves

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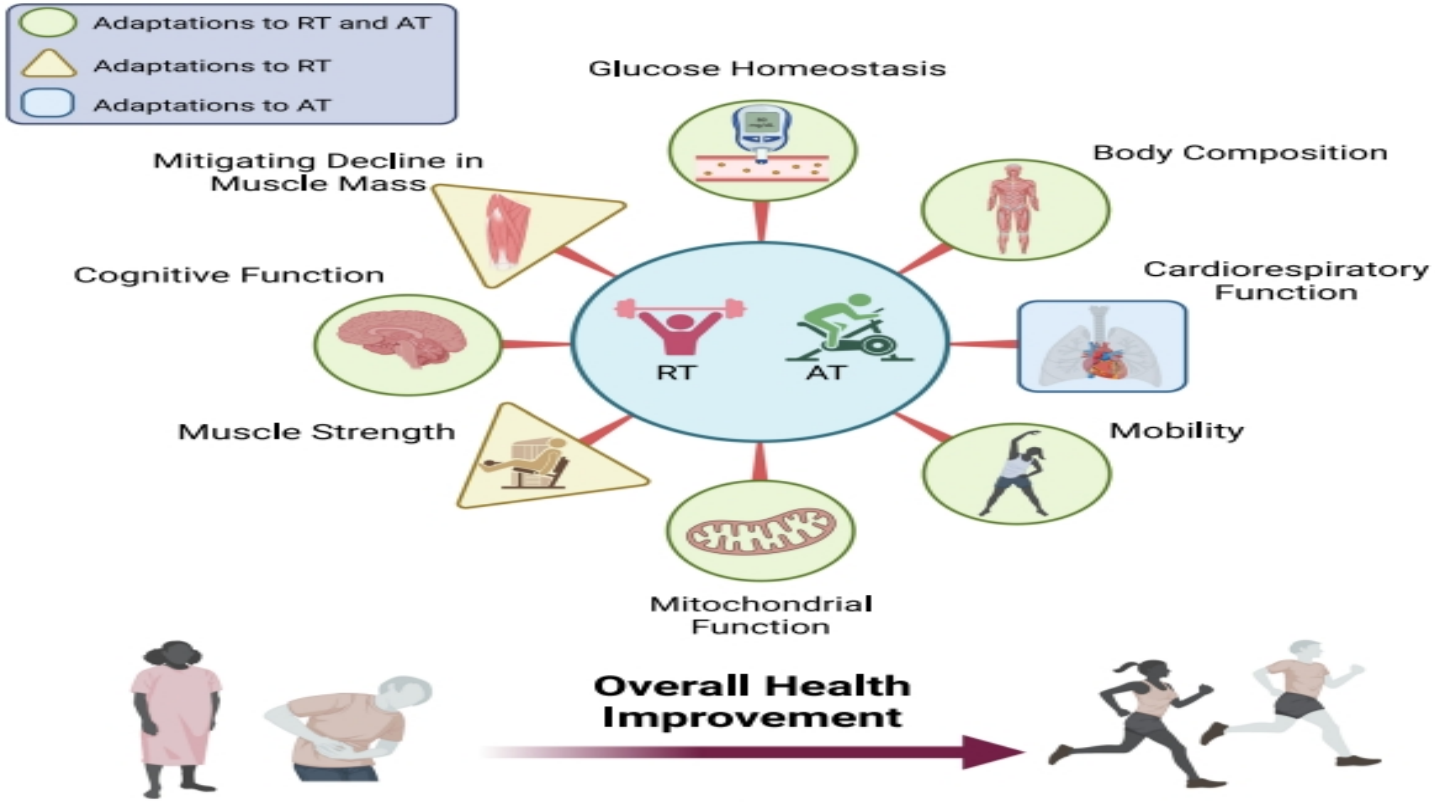


Figure 1. Health adaptations resulting from regularly engaging in resistance training (RT) versus aerobic training (AT) in addition to the concurrent effects of AT + RT.

mobility in the elderly and combining RT and AT (along with balance training) effectively reduces falls in care facilities (9,10). How-

twice a week for long periods (≥16 wk) and at moderate intensity (50%–70% 1RM) is more likely to improve overall cognitive func-

1）一直以來，每星期150分鐘中至高強度帶氧運動，有效減低多種慢性病

2）原來每星期兩次阻力訓練証實可產生類似的健康益處

3）益處包括：抗衰老，改善活動能力，增強腦認知功能，抗癌症，減低二型糖尿病和肥胖症

4）只要舉輕重量（12-15RM） 亦可有效

5）最終降低重症和死亡機率

6）附合台灣三大研究中的一個結果：多鼓勵長者進行阻力訓練

7）手術之後3日冇活動減1公斤肌肉

8) 65歲以下昔日有運動，30日冇活動減1磅肌肉

9）65歲次上，10日冇活動減1公斤肌肉

10）到80歲少左30％肌肉量

11） 冇阻力訓練容易有糖尿病，肌肉流失更厲害

12）少10％肌肉：抵抗力即跌；少20％肌肉：傷口癒合差；少40％肌肉：易肺炎感染致命

13）用手握力測試：男28磅力，女18磅力

所有的成年人都需要避免「唔運動」。

有氧
Aerobic

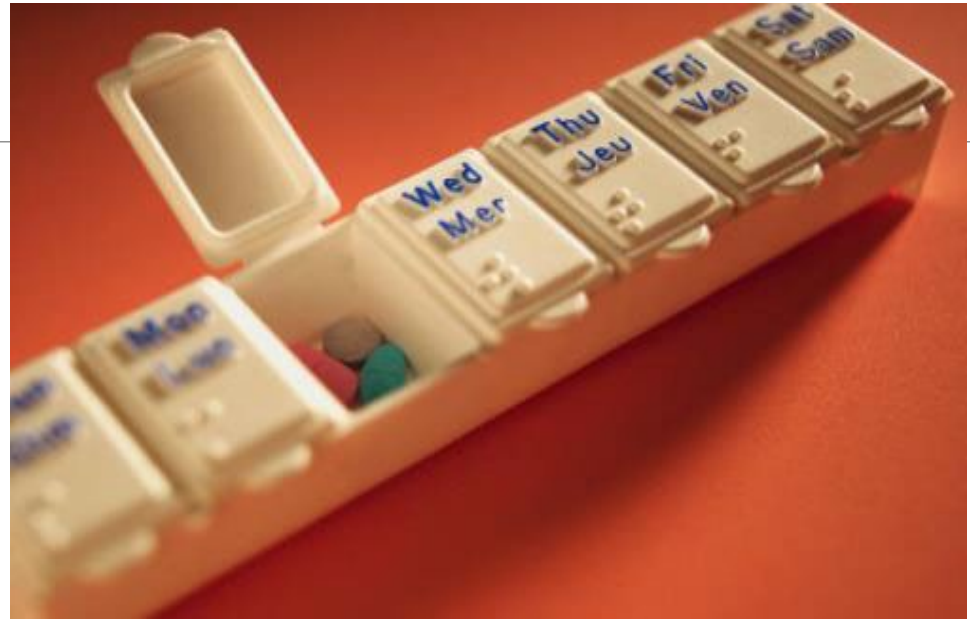
如想獲取任何實質上的健康益處，成年人需要每周進行150至300分鐘中等強度的體能活動。

阻力訓練
Resistance Training



如想獲取額外的健康益處，
成年人仍需要每周進行**2次**或以上
中強度、甚至高強度**肌肉鍛練**。

容易跌倒的長者應該選擇進行一些維持或提升身體平衡的運動。



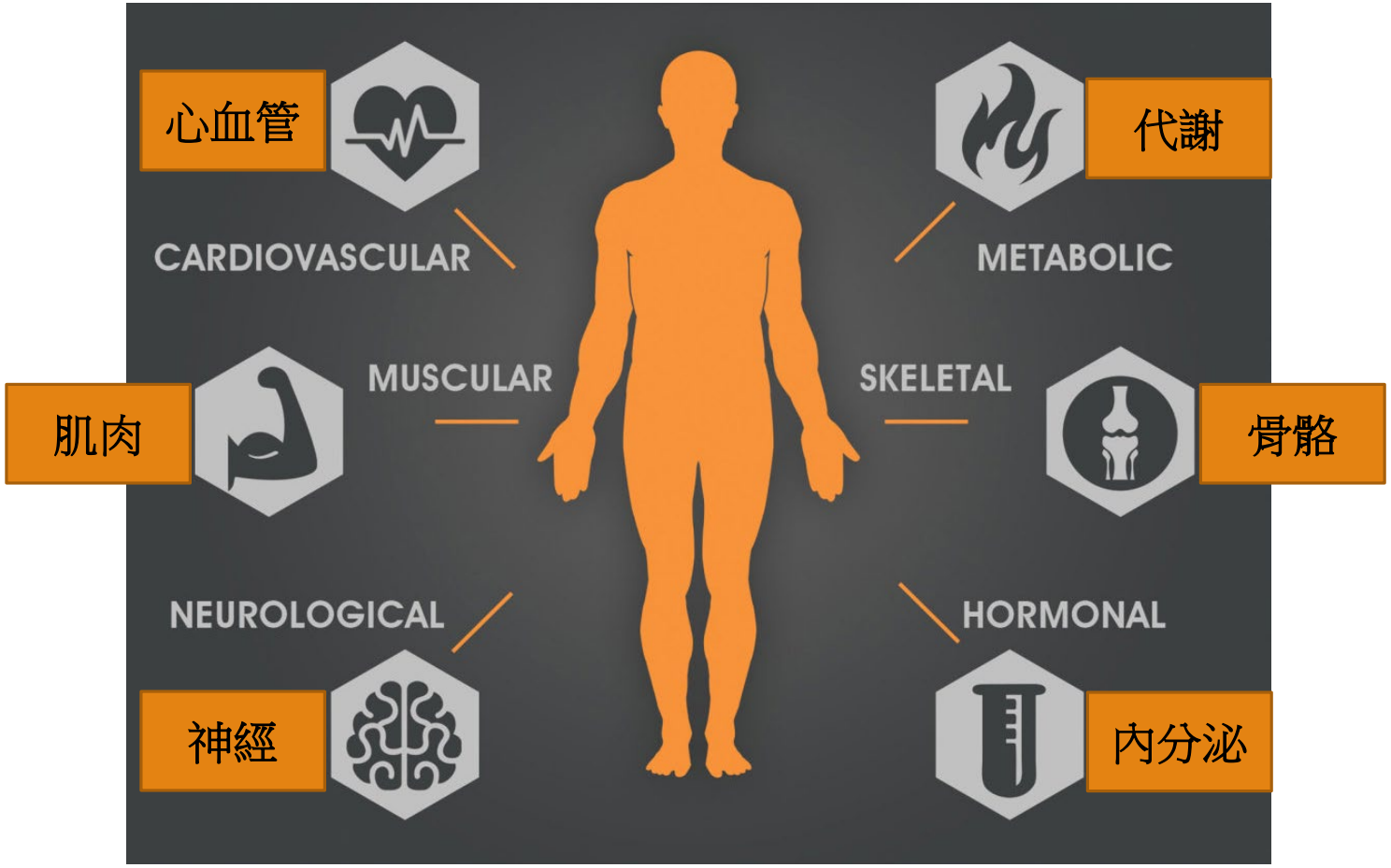
患有長期病患的長者需要清楚知道如何根據自己的身體狀況，及運動後對身體所造成的影響而安全地進行恆常的運動。

體能活動的需要

5-17歲兒童及青少年	18歲或以上成年人
MVPA60/D 每天60分鐘中等至劇烈強度有氧性質體能活動	**MVPA150/W** 每週150分鐘中等至劇烈強度有氧性質體能活動
2-3RT/W 每週兩次阻力訓練	

World Health Organization, 2020

體能活動帶來整體健康裨益



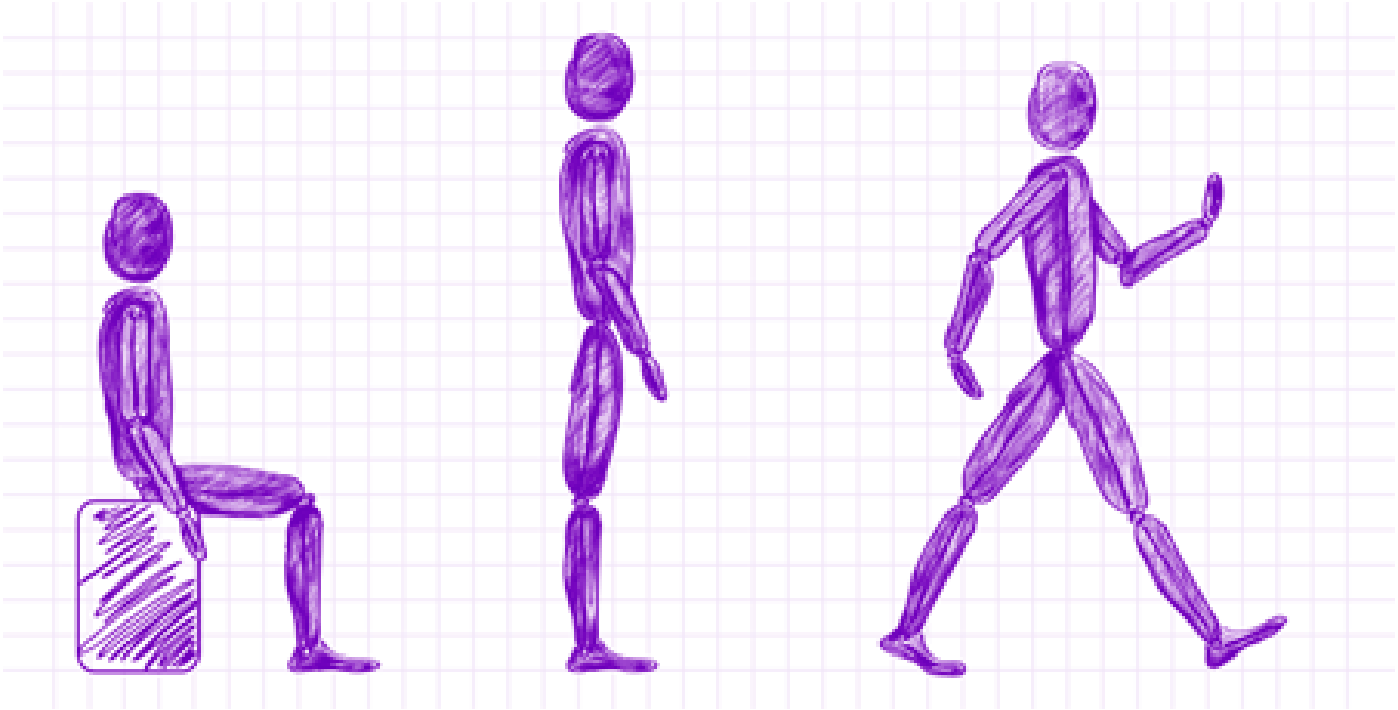
靜態行為

《英國醫學雜誌》刊登一項關於“久坐行為”的新研究發現，

長時間窩在沙發上看電視會增加早死危險。每天看電視2小時會

導致折壽1.4年。

重要概念 1：
行比企好，企比坐好



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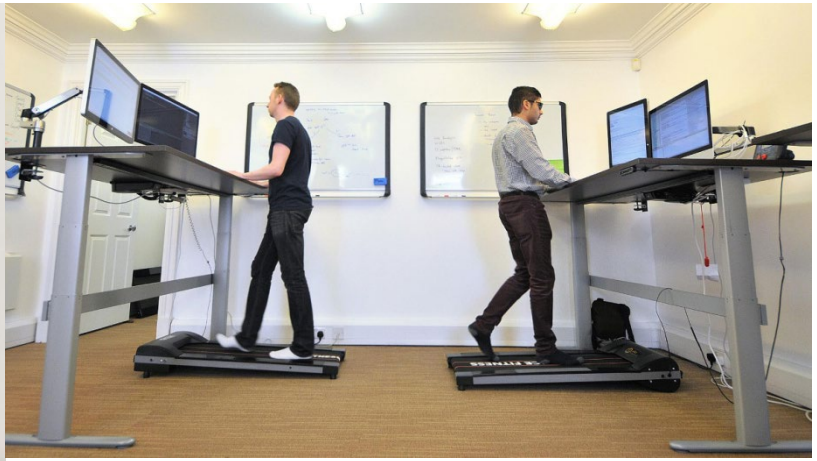

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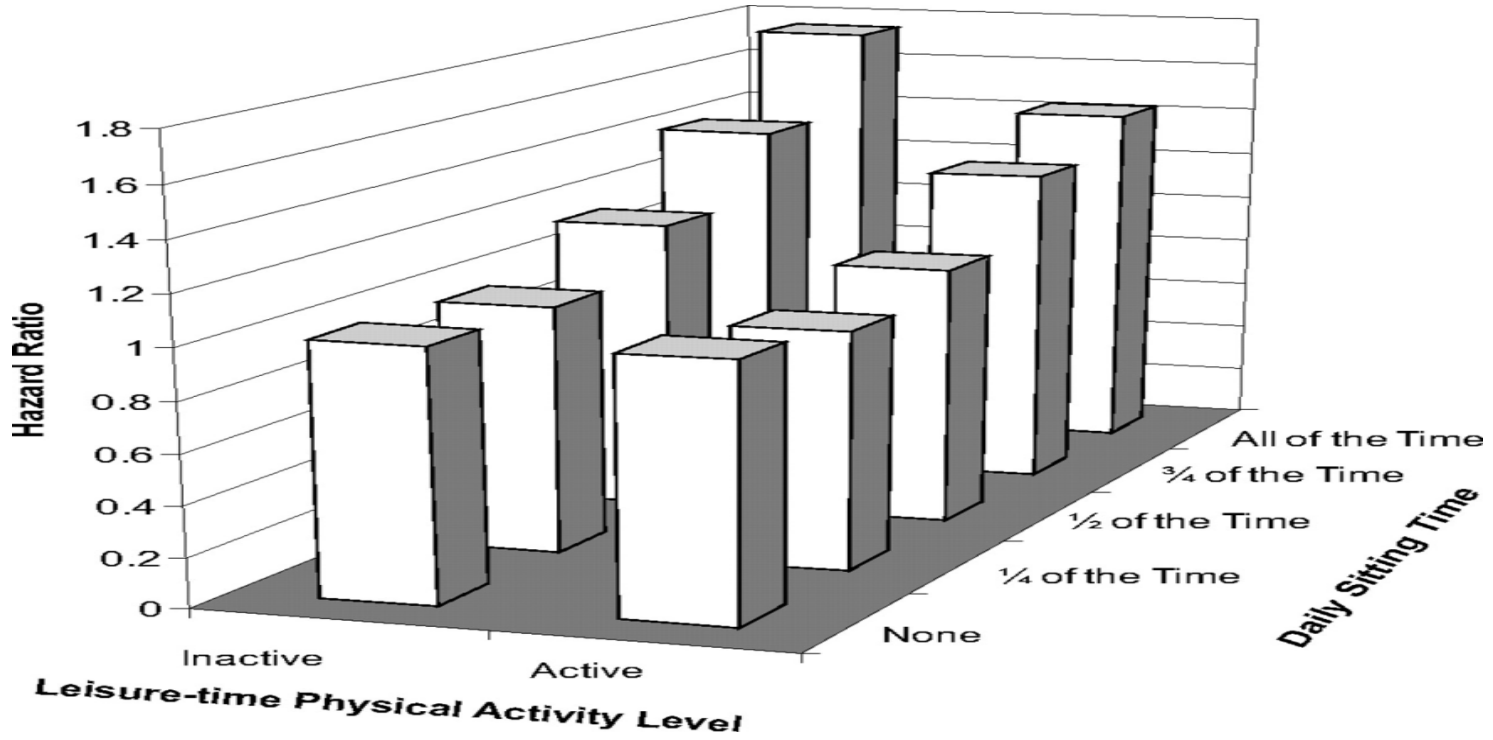
重要概念 2：
坐得愈耐，死得愈早



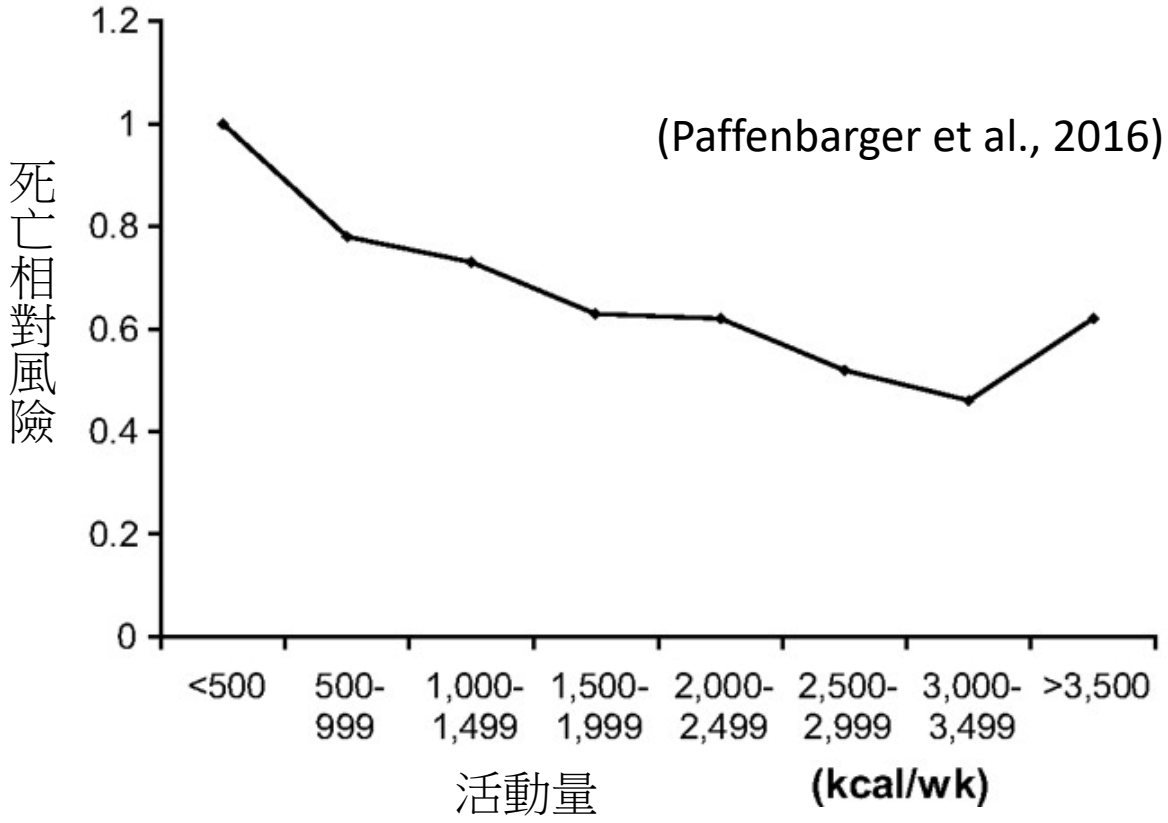
(Katzmarzyk et al., 2019)


WALK

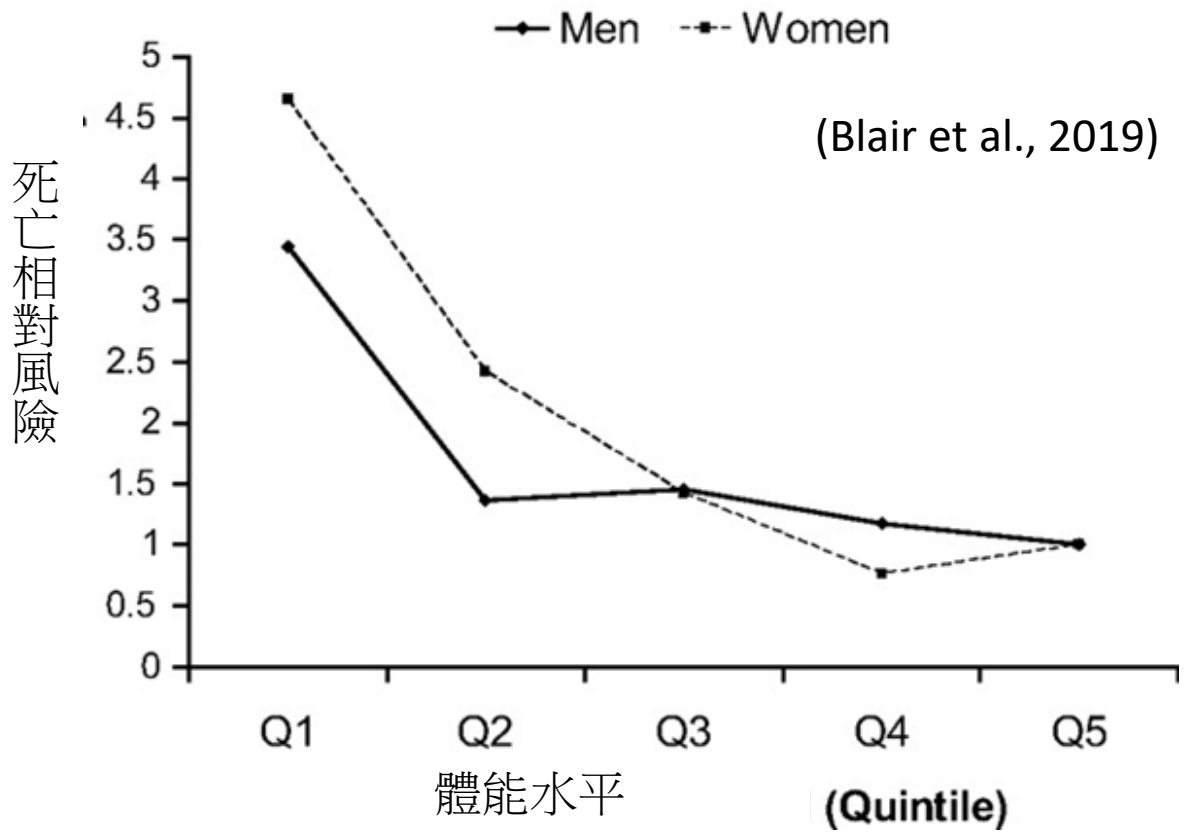
重要概念 3：適量就夠


Benefits
Risks and harms
Active living
Activity for health
Exercise for fitness
Training for sport

活動量與死亡風險


(Paffenbarger et al., 2016)
死亡相對風險
1.2
1
0.8
0.6
0.4
0.2
0
<500
500-999
1,000-1,499
1,500-1,999
2,000-2,499
2,500-2,999
3,000-3,499
>3,500
活動量
(kcal/wk)

重要概念4：積極人生在乎FIT



(Blair et al., 2019)

行動建議

實踐方法1：
講多無謂，行動最實際

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實踐方法2：善用社交媒介

實踐方法3：
善用可攜式裝置

何詩蓓教伸展:

Siobhan 1
https://www.facebook.com/arenahk/videos/2720097121636944/
Siobhan 2 Ab:
https://www.facebook.com/arenahk/videos/1472223201998 51/
Siobhan 3 Core:
https://www.facebook.com/arenahk/videos/818575782256505/
Siobhan 4 Power:
https://www.facebook.com/arenahk/videos/1245902322897581/

何詩蓓教伸展:

Siobhan 1 ：12 minutes

https://www.facebook.com/arenahk/videos/2720097121636944/

甚麼是身心伸展的鬆弛效果？

1) 通過重新認識身體結構功能，了解身體的正確功能。

2）藉生動有趣的簡單技巧，引導自我動作的探索。

3）透過基本身心伸展鬆弛的動作，增進愉悅心靈和體適能狀態。

4）透過自己掌控身體健康，掌握自己的身體和心靈，享受簡易的鬆弛技巧。

烏龍絞柱

1）雙膝微屈站立並吸氣，雙手慢慢由兩側向上舉，呼氣時枕放後腦，即手指頭托著後腦。

2）雙手十指互扣並把頭置於其上，上半身向後延伸至心口向天，然後兩手肘向外延伸 。

3) 吸氣後心口向上，如盤旋狀向左轉，同時左手肘向左後繞一個大圈 。

4）呼氣時右手肘順勢向下帶動上半身至前彎的位置 。

5）同時雙膝微屈，令尾骨向下如坐椅上，完成後慢慢向上，然後換另一邊再做 。

6）左右交替兩次後，吸氣圓背，慢慢將脊椎一節節地把上身帶起 。

7）兩手從頭後向上領到頭頂上方延伸出去，然後慢慢將手向外打開，在身體兩旁放下 。

8）最後自然站立，兩膝微屈平行站立，身心放鬆並保持微笑，從腳踝、膝蓋、髖關節、骼薦關節、腰椎、胸椎、頸椎到頭頸之間，感覺到各個關節空間的存在。

Q & A

再會

十分感謝聆聽

— 完 —

BYE BYE!