

何謂運動處方?

如何擬定增進健康的運動處方

-以肥胖族群為例

國立體育大學 陸上系四年級  
趙鈺欽

# 綱要

- 前言
- 運動處方
- 結語

# 前言

- 現在社會當中，肥胖的比率逐漸的上升，2007年世界衛生組織指出，全世界已有16億的成人過重，4億的成人是肥胖者，運動處方和肥胖又有什麼直接關係呢。

# 人體熱量平衡



平衡

正

負

## Neutral Calorie Balance

Calories Consumed = Calories Used | No change in Weight

## Positive Calorie Balance

Calories Consumed > Calories Used | Weight Gain

## Negative Calorie Balance

Calories Consumed < Calories Used | Weight Loss

攝取熱量  
(進食)



基礎代謝率

身體活動

運動

up with a new blockbuster chicken McNuggets in 1983, began, We Love to See You and many people happy on the counter in quite a while. More than half its 13,099 stores, which could cost the chain as \$800 million over the next years, is only part of CEO Jack Greenberg's plan to get the old McDonald's back in shape. Greenberg's plan leads to a renewed commitment to a friendly service, to roll out a "dollar value menu" and a new national ad campaign. In addition, the company is experimenting with all sorts of new restaurant formats: an upscale sit-down dining room, a fast-casual outlet offering burgers and pizza (both of which are popular in the Northeast), and small snack bars inside Home Depot. He is even considering using his vast real estate to sell antiques, which could mean selling toys to videos.

Greenberg is acknowledging the company's decline. He says, "That brand, as powerful as it was, is going, who some critics say, may not have to return it to its former glory after expanding

for much of the past decade. McDonald's market-leading share of the \$46 billion fast-food burger industry in the U.S. has lately flattened out at around 43%. Wendy's, boasting a popular line of premium salads and a strong reputation for freshness, grew its share to 13.2% in 2001, up a point and a half since 1998, according to industry research group Technomic. (Perennial runner-up Burger King's share dropped to 18.5% from 20.4% during the same period.)

Heightened competition from the likes of Subway, which has dethroned McDonald's as nationwide champ in total stores with 13,101, has added to the McWoes. Subs and other custom-made sandwiches are growing 12% a year as a fast-food category vs. a paltry 2% to 3% for burgers. Meanwhile, a range of upstart "fast casual" restaurants such as Panera Bread and Baja Fresh, which serve up a slightly more upscale dining experience, "have raised the bar for the fast-food industry," says Robert Sandelman, president of Sandelman & Associates, a market-research firm.

McDonald's is doing its best to cash in on changing tastes. Its Crispled Chicken Flatbread sandwich, introduced this sum-

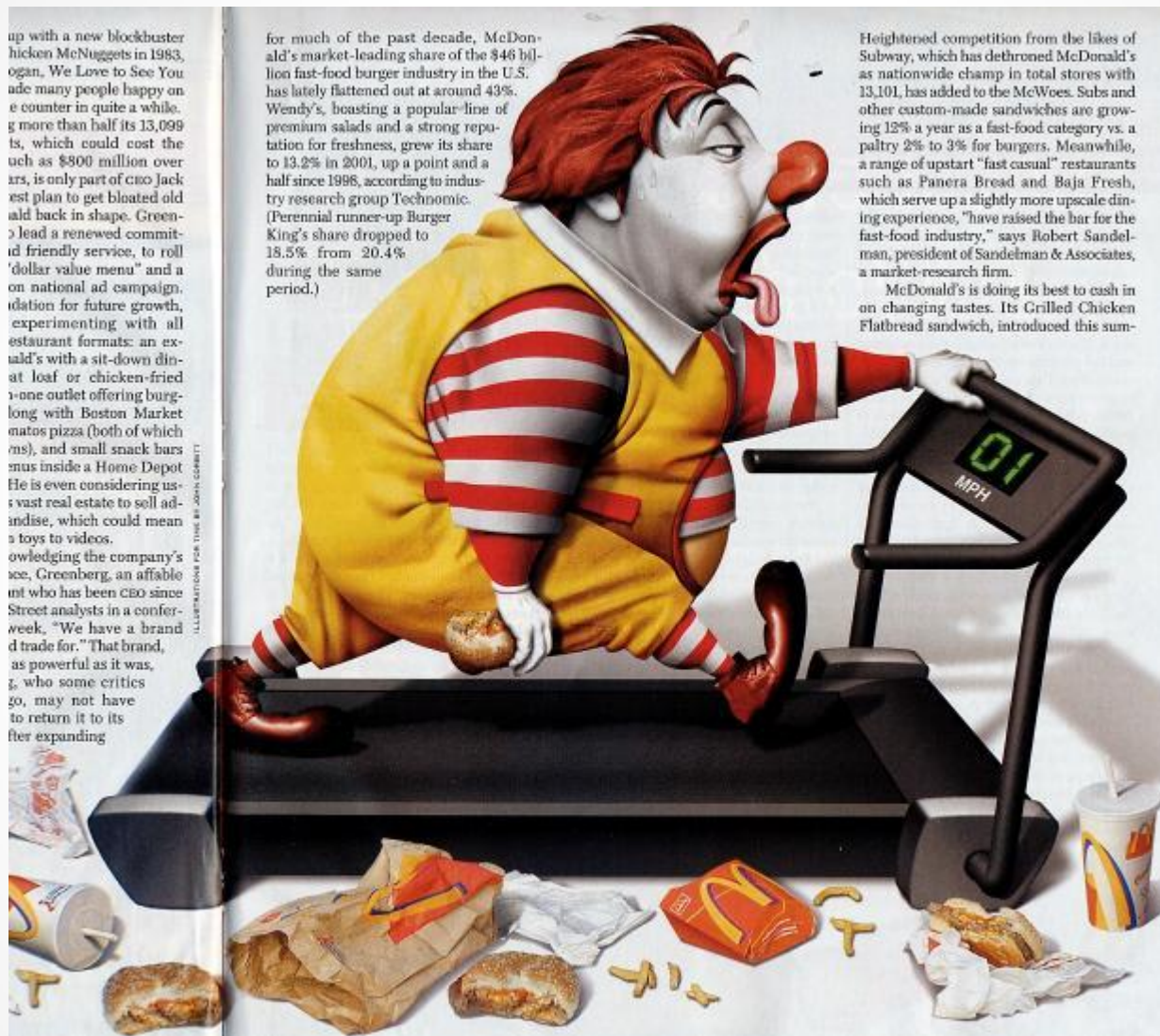
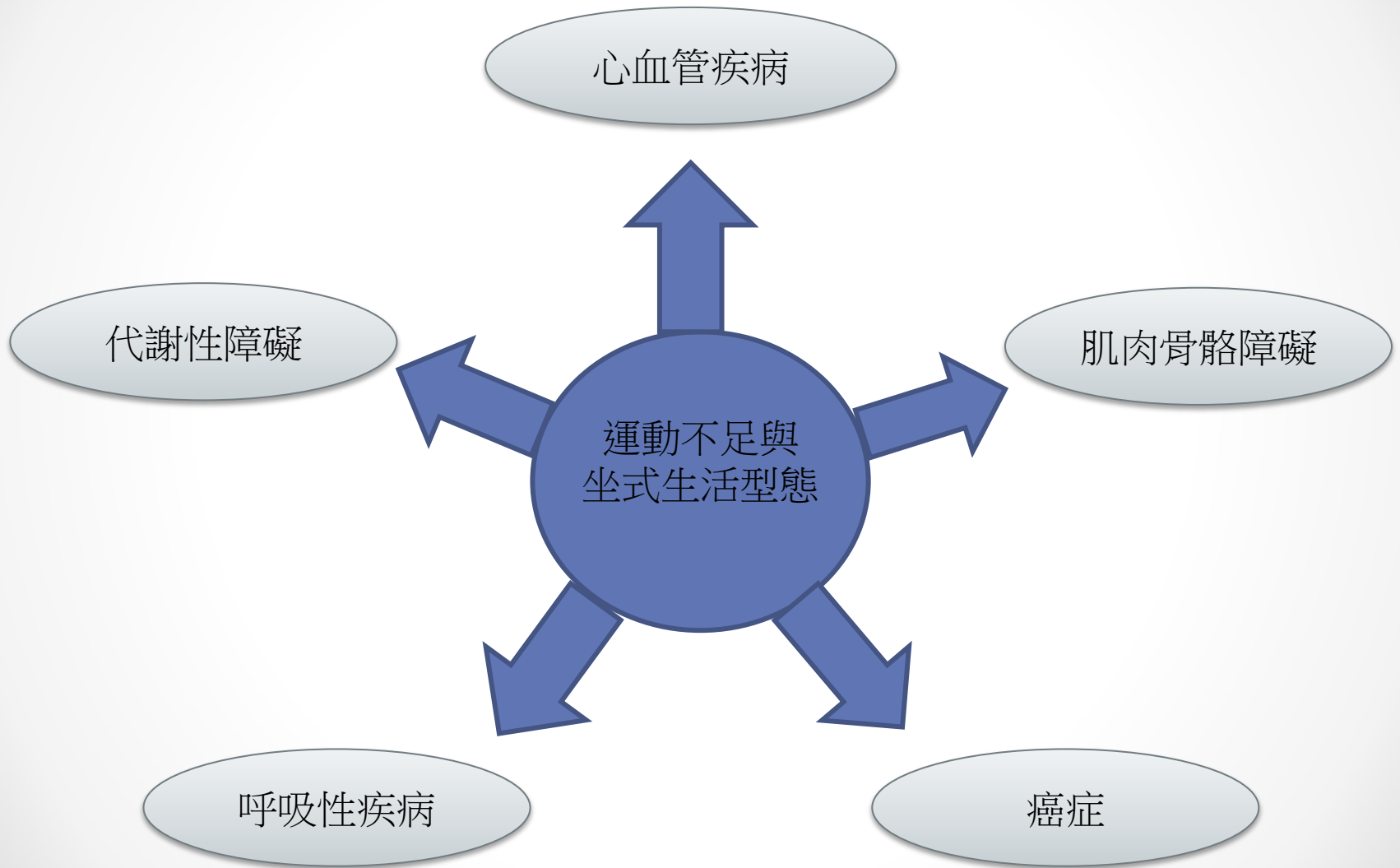


ILLUSTRATION FOR TIME BY JOHN CORRETT

成人肥胖定義	身體質量指數(BMI) (kg/m <sup>2</sup> )	腰圍 (cm)
體重過輕	BMI < 18.5	X
健康體位	18.5 ≤ BMI < 24	
體位異常	過重：24 ≤ BMI < 27 輕度肥胖：27 ≤ BMI < 30 中度肥胖：30 ≤ BMI < 35 重度肥胖：BMI ≥ 35	男性：≥ 90 公分 女性：≥ 80 公分

體重70 身高177

$$\text{BMI} = 70 \div 1.77 = 22.3$$



## • 十大死因

- 惡性腫瘤
- 心臟疾病
- 腦血管疾病
- 肺炎
- 糖尿病
- 慢性下呼吸道疾病
- 高血壓性疾病
- 腎病症候群及腎病變
- 事故傷害
- 慢性肝病及肝硬化



其中至少有7項死因都跟肥胖有著直接或間接的關係！



# 運動處方

## 何謂運動處方？

- 當一個人的體適能不足，必須由專業人員根據每一個人的體適能缺乏狀況及目的，設計一套適合個人需要的運動計劃，以有效改善體適能危機，促進身體健康，這套運動計劃內容就是所謂的「運動處方」（又名訓練計畫）。

# 運動處方擬定原則

**FITT原則**：

運動頻率 (frequency)

運動強度 (intensity)

運動類型 (type)

運動持續時間 (time)

運動的漸進性

# 運動類型



# 心肺適能(有氧)

- 運動類型(肥胖者)
  - 固定式腳踏車
  - 飛輪
  - 手搖車
  - 游泳
  - 水適能



# 水適能運動



<https://www.google.com.tw/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjTnfeotPPTAhVKxrwKHdhNAmQQjRwIBw&url=http%3A%2F%2Fcheap2.pixnet.net%2Fblog%2Fpost%2F251796778-%25B%25E%258F%25B0%25E5%258C%2597%255Dgogym-%25E5%2581%25A5%25E8%25BA%25AB%25E4%25BF%25B1%25E6%25A8%2582%25E9%2583%25A8--vip%25E5%25B0%2588%25E5%25B1%25AC%25E6%2595%2599%25E7%25B7%25B4%25E8%25AA%25B2%25E7%25A8%258B%25E9%2580%259A%25E7%2594%25A8&psig=AFQjCNHBUCM6fcaZarVfcWJM4Dmjs67x6Q&ust=1494989528757797>

# 肌肉適能

- 阻力訓練
  - 機械式重量訓練器材
  - 彈力帶



表 9-9 有益健康、健康減重及體重管理的身體活動與運動量建議

目標	強度	時程	次數 (1 週)	來源
有益健康	溫和	至少 30 分鐘	最少 5 天	ACSM 及 AHA
	激烈	20 分鐘	最少 3 天	
	溫和	1 週 150-300 分鐘		USDHHS
	激烈	1 週 75-150 分鐘		
減重	溫和	1 週 150-250 分鐘		ACSM
維持體重與預防體重增加	溫和至激烈	45-60 分鐘	5-7 天	IASO、IOM、USDHHS
	溫和	150-250 分鐘		ACSM
預防復胖	溫和	60-90 分鐘	7 天	USDHHS
	溫和	至少 60 分鐘, 最好 80-90 分鐘	7 天	IASO
	激烈	至少 35 分鐘	7 天	IASO
	溫和	1 週超過 250 分鐘		ACSM

備註：ACSM=美國運動醫學會；AHA=美國心臟協會；IASO=國際肥胖研究學會；IOM=醫學組織（美國）

- 身體活動 ✓

- 運動





# 影片

- <https://www.youtube.com/watch?v=zA2nQhxoeCw>

# 結語

坊間有很多瘦身的方式，但其實用運動減肥是最天然健康的方式，對於肥胖者，增加適合個人身體的活動量和規律的運動習慣，也並加上裡面沒談論到的飲食控制，可達到減肥的效果。

Exercise is medicine (運動是良藥)

# 參考文獻

[https://www.google.com.tw/search?q=%E6%B0%B4%E9%81%A9%E8%83%BD&source=lnms&tbn=isch&sa=X&ved=0ahUKEwismJeNtPPTAhWlvrvwKHZMvAgQQ\\_AUICigB&biw=1348&bih=602#imgdii=ZMM5yZeBwegKYM:&imgsrc=5dRMgwEdzCR1bM](https://www.google.com.tw/search?q=%E6%B0%B4%E9%81%A9%E8%83%BD&source=lnms&tbn=isch&sa=X&ved=0ahUKEwismJeNtPPTAhWlvrvwKHZMvAgQQ_AUICigB&biw=1348&bih=602#imgdii=ZMM5yZeBwegKYM:&imgsrc=5dRMgwEdzCR1bM):

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<http://www.nhcue.edu.tw/~linhan/fitness3.htm>

[http://stud.adm.ncku.edu.tw/hea/4work/wedu/e2/e232/pah\\_G.htm](http://stud.adm.ncku.edu.tw/hea/4work/wedu/e2/e232/pah_G.htm)

謝謝大家