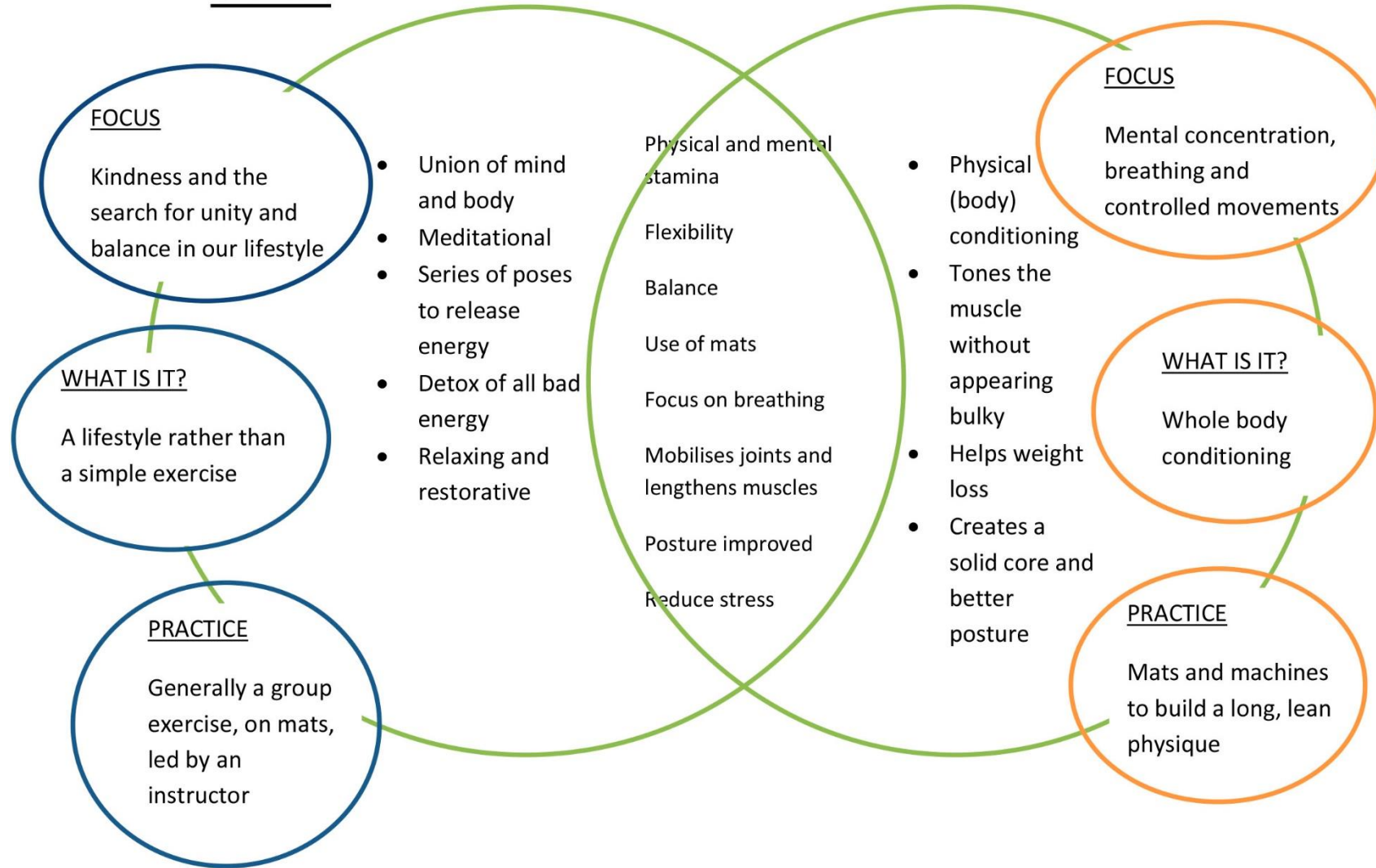


YOGA



PILATES



研究：運動增肌肉提高乳癌病人存活率

【本報綜合報道】癌症病人面對種種療程，會出現體重下降及免疫力減弱情況，美國有家庭醫學及癌症的研究院發現，乳癌患者的肌肉量高影響存活率，專家鼓勵癌症患者若體力許可盡量做運動，如稍為做舉重運動、瑜伽、普拉提等，有助建立肌肉。

http://orientaldaily.on.cc/cnt/news/20180418/00176_068.html

The Cardiac Rehabilitation Model Improves Fitness, Quality of Life, and Depression in Breast Cancer Survivors

Lianne B. Dolan, PhD; Danielle Barry, BSc; Teresa Petrella, MD; Lindsay Davey, MSc, PT; Ann Minnes, RN; Allison Yantzi, MD; Susan Marzolini, PhD; Paul Oh, MD

Purpose: Exercise is a demonstrated, therapeutic strategy for cancer survivors to minimize many treatment-induced side effects and may decrease risk of recurrence. Nonetheless, structured programs that combine exercise and education are not yet standardized within cancer care. The Health, Exercise, Active Living, Therapeutic lifestyle (HEALTH) program is a clinical exercise program based on the established cardiac rehabilitation

vent acute death from cancer, but it predisposes survivors to increased risk for developing comorbidities, which have associations with further disease development and early mortality.^{2,3} These treatment-related short- and long-term side effects can encompass weight gain, decline in aerobic capacity, increased fatigue, pain, depression, vasomotor symptoms, loss of fertility, early onset of menopause, fear

[Sports Physical Therapy]

Pilates: What Is It? Should It Be Used in Rehabilitation?

Christine E. Di Lorenzo, PT, DPT, CPI

Context: The interest and popularity of Pilates is increasing worldwide. In addition to being used in fitness programs, it is being used in some rehabilitation programs.

Evidence Acquisition: This review summarizes level III evidence from 1995 to 2009 obtained from PubMed (MEDLINE), CINAHL, and the Internet. Meta-analyses, systematic reviews, randomized controlled trials, and controlled trials published in peer-reviewed journals were retrieved for appraisal. The key words searched were *Pilates* and *core stabilization*.

Results: Ninety articles were identified in MEDLINE and CINAHL; 9 articles satisfied the inclusion criteria for level III evidence.

Conclusion: There is a scientific basis for the effectiveness of Pilates exercise, with limited evidence to support it as a rehabilitative intervention.

Keywords: Pilates; rehabilitation; core strengthening

Joseph Pilates was self-educated in anatomy, bodybuilding, boxing, wrestling, yoga, gymnastics, and martial arts. At the outbreak of World War I, he was interned as an enemy alien in England and became a nurse-physiotherapist to his fellow internees who were sick or injured. He took bedsprings and rigged them to posts, headboards, and footboards of the bed frames, transforming them into resistance-type equipment for disabled patients. These designs were the early models of his universal reformer (Figure 1) and trapeze table (the "Cadillac"; Figure 2) and are the benchmark apparatuses in every Pilates studio today.

Joseph Pilates published 2 books,^{20,60} the first in 1934 and the second in 1945, in which he passionately described his overall philosophy on holistic health and balanced well-being but not his method of exercise. Pilates believed that his method, called *contrology*, would activate brain cells to stimulate the mind and affect the body.⁶⁰ Recently, science has substantiated that exercise improves cognition—specifically, executive function.^{51,60,71}

FAD OR TREND?

In Google, there are 16 400 000 entries for *Pilates*. Entering the term *Pilates exercise* reduces that to 11 700 000. There are also 330 000 citations for the *benefits of Pilates*. In 2000, Yahoo! Chang reported in *Newsweek* that 10 years ago, 5000 people



Figure 1. The reformer (image courtesy of True Pilates, New York, New York).

did Pilates exercise; today, the number is 5 million in America alone.⁵⁹ According to a 2005 Sporting Goods Manufacturers Association Topline Report,⁵⁸ the growth of Pilates skyrocketed from 1.7 million in 2000 to 10.5 million in 2004; 67% of Pilates participants took up the activity in 2002. The growth rate from 2000 to 2006 was 613.3%.⁵⁸ The American College of Sports Medicine's survey of fitness trends worldwide shows

From the West Side Physical Therapy, New York, New York.

Address correspondence to Christine E. Di Lorenzo, PT, DPT, CPI, (e-mail: christinedilorenzo@gmail.com). Note: CPI = Certified Pilates Instructor, Romana's © Pilates, New York, NY.

DOI: 10.1177/1941738111410285

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- "I must be right. Never an aspirin, Never injured a day in my life. The whole country, the whole world, should be doing my exercises. They'd be happier.

- —"Joseph Pilates, age 83

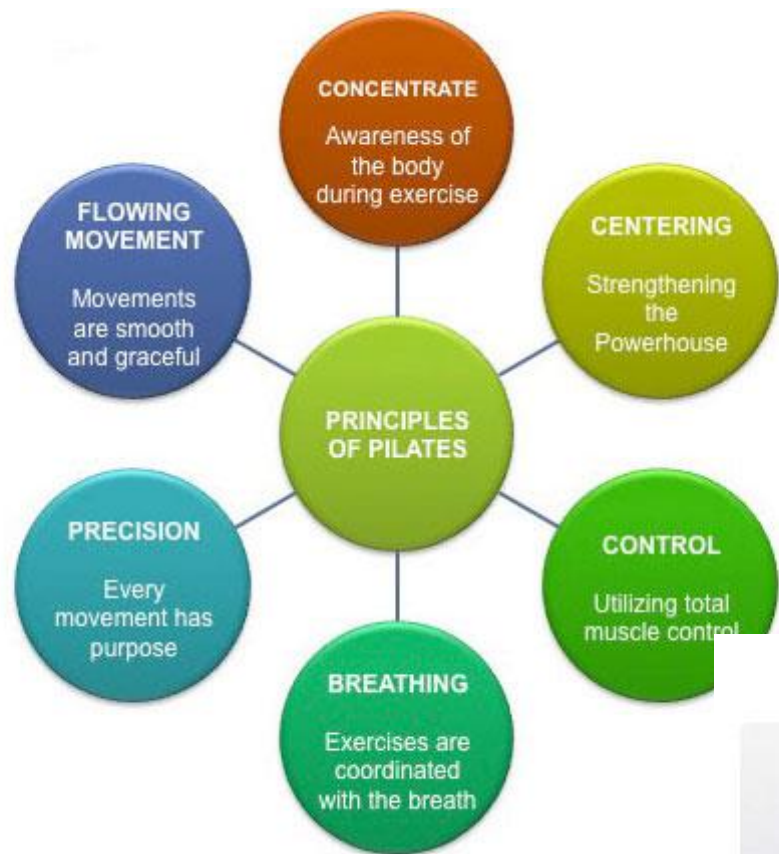
- 我一定是正确的。在我的生命中，从来没有阿司匹林，从来没有一天遭受损伤病痛。整个美国，整个世界，都应该来做这个锻炼，他们将从中受益变得更快乐。

- ——约瑟夫·普拉提于83岁



"Good posture can be successfully acquired only when the entire mechanism of the body is under perfect control."

J. Pilates



皮拉提斯

『專注、呼吸、核心、控制、精確與流暢』是Pilates原創的六大原則，而Pilates針對現代人不同的生活習慣加入更多不同的指導方針例如延伸脊柱增加脊椎活動度建立穩定的肩頸重新檢視軀幹的穩定排列動作靈活整合進而達到穩定核心的效果

臨床普拉提的優點

增強軀幹核心
(脊骨、肩部和盆
骨帶)的穩定性

改善身心控制

增強姿勢的意識

鍛鍊有效的呼吸及
動作模式

發展平衡的身體

提升肌肉的狀態及
靈活性

Common Exercise For Women After Breast Surgery

1 Elbow winging	2 Wand exercise
3 Chest wall stretch	4 Side bending
5 Shoulder blade squeeze	6 Shoulder blade stretch
7 Shoulder stretch	8 Shoulder stretch

Why do I need to rest?

01

- Studies show that women and men who follow precautions while drains are still in plus three more days have less wound drainage volume and tend to get their drains out sooner. tend to get their drains out sooner.

02

- Your body doesn't care if your house needs cleaning, or your garden needs weeding, or the dog needs walking.

So, what does that mean?



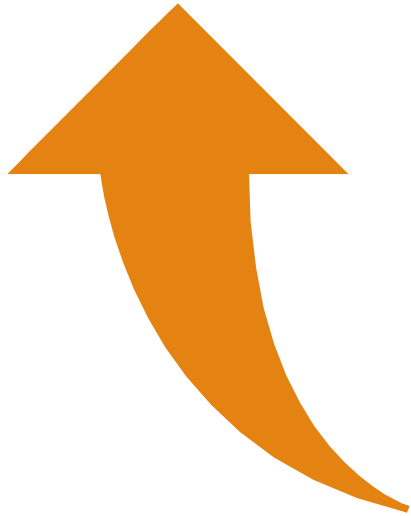
- Avoid cooking or household chores
- Avoid working, decrease computer activity
- Have someone else walk the dog and take care of pets
- Avoid exercise for cardiovascular conditioning or weight loss - don't do too much, too soon
- Movement restrictions of the arm –below 90 degrees of motion (shoulder height)

What CAN I Do?



- Shoulder rolls: Gently lift your shoulders towards your ears, roll them back and complete a full circle. Do this 10-15 times a few times a day, both forward and backwards. Keep arms at your side
- Deep Breathing -this moves skin over rib cage, can help prevent pneumonia and blood clots
- Light walking around your house
- You can use your arms below 90 degrees –eating, etc is OK!

Posture, Posture, Posture!



- Posture is VERY important!!
- Avoid hunching forward, rolling your shoulders in, slouching down and having your shoulder hunch up toward your ears.
- These are all positions that you will feel like assuming when
 - These are all positions that you will feel like assuming when you come out of surgery, but they will all cause you more pain down the road and actually delay return to movement.
- Although we restrict your movement of your arm during the first week, you can work on your posture and your body position immediately, which will provide some pain relief

Manage your pain



Feeling sore or some pain when exercising is normal. For example, you may feel like something is pulling inside. This is normal. You are feeling your scar tissue stretching.

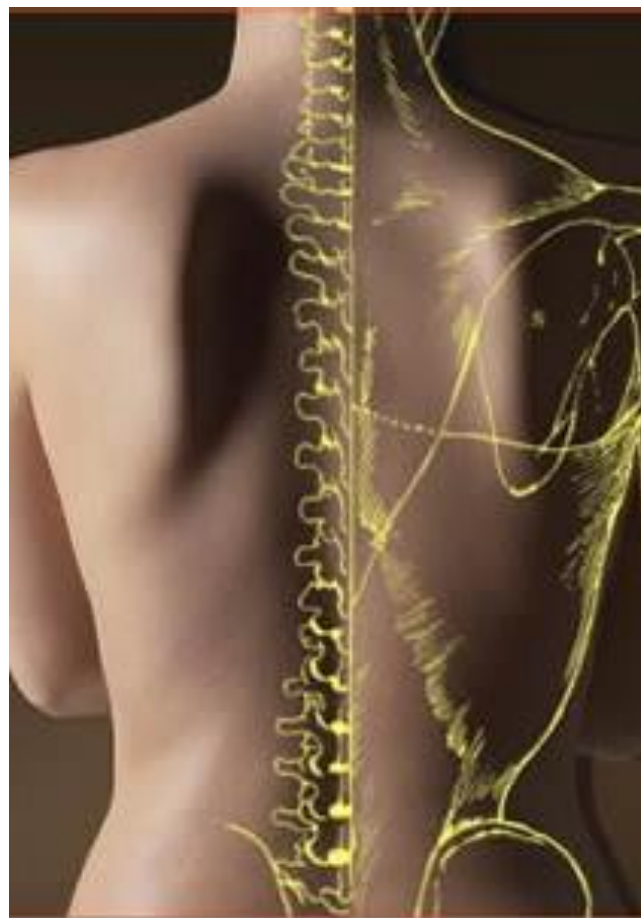
If it is very painful or uncomfortable, take a break. But, don't stop exercising completely. Start slowly, and keep doing the exercises 1 step at a time. Be patient with yourself. You will slowly get stronger.

If you feel you cannot do your exercises because of pain, try to do the exercises about 20 to 30 minutes after taking pain medicine or a shower. Talk to your doctor, nurse, physical therapist or occupational therapist for ideas on how to manage your pain better.

When you exercise:

- Begin exercises slowly, without tiring or straining yourself. Do not force any movements. This includes activities you do at work, at home, or during sports and hobbies.
- Start with whatever you are able to do and slowly add more until you are able to repeat each exercise 5 to 10 times, 2 to 3 times a day. Hold each stretch for 3 to 5 deep breaths. Continue with these exercises every day until you can use your arm the way you did before.
- If you can, do the exercises in front of a mirror so you can make sure you keep good posture.

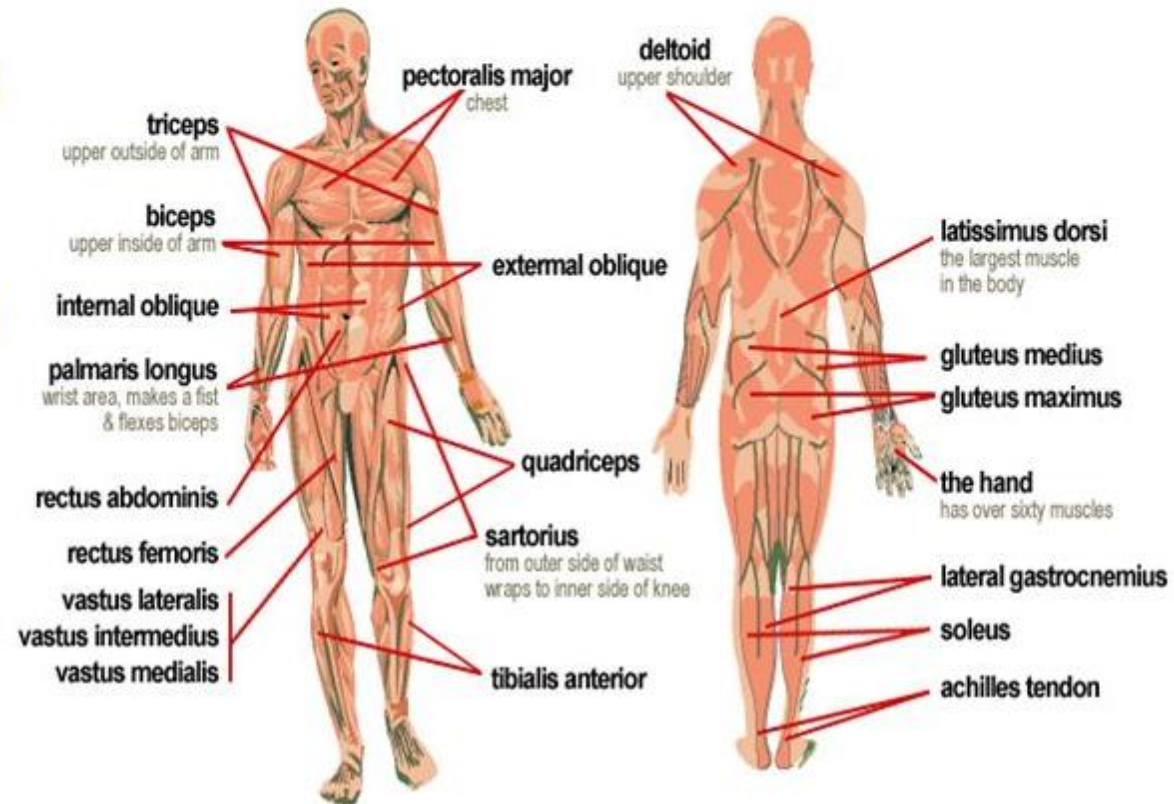




乳房手術側的
胸壁、肩膀、
腋下及手臂

You should stretch the following muscles

- sides (external obliques)
- neck
- forearms and wrists
- triceps
- chest (pectoralis major)
- buttocks (gluteus)
- groin (adductors)
- thighs (quadriceps and abductors)
- calves (gastrocnemius and soleus)
- shins (tibialis anterior)
- hamstrings (rectus femoris)



乳房手術後的 復健運動

傳導感覺：

手術側的胸壁、肩膀、腋下及手臂，可能會有一些奇怪的感覺，如麻木、針刺感、觸電感、沉重感、燒灼感，或有「水滴」沿手臂下流的感覺。這些感覺可能在疲累、情緒不穩，或天氣變化時特別明顯，這是因為手術時皮表神經受損的緣故。

可以用另一側的手輕輕拍打感覺異常的地方，以減低敏感度。隨著神經的再生，上述的感覺會逐漸減弱，**通常在手術後到六個星期可以逐漸恢復**

皮膚的感覺大概要在手術後八到十個月才會逐漸恢復。不需要因為感覺異常，而影響到日常生活及復健運動。

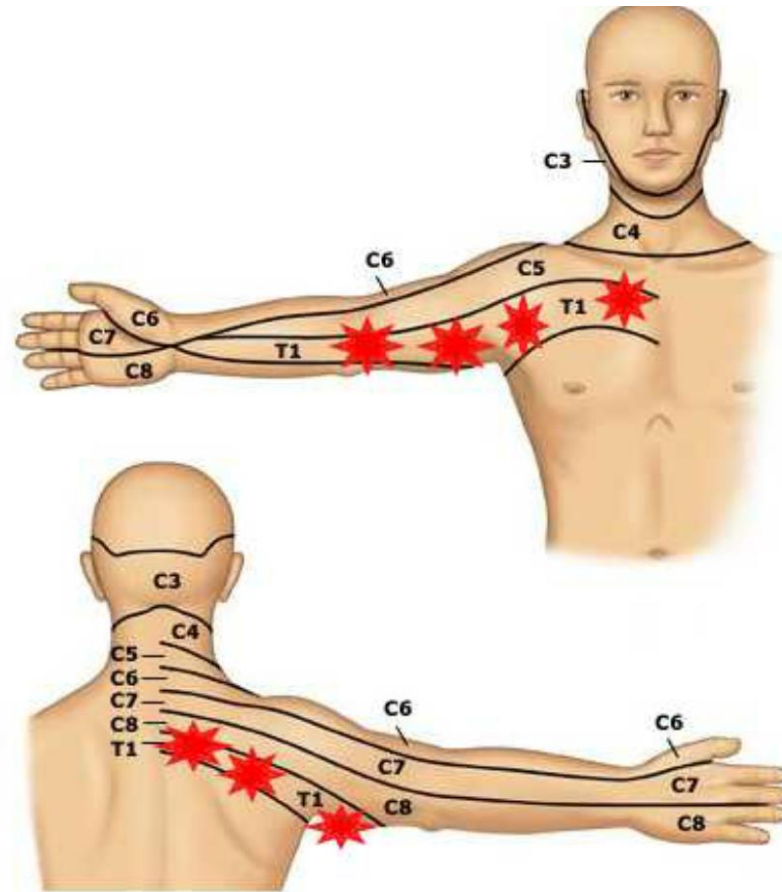
手臂疼痛與 緊繃感覺

1

少數病人手術側的手臂會產生一至數條緊繃帶，牽扯時會疼痛。這多是因為局部靜脈發炎或肌膜沾連所致，通常一至二個月就會恢復。

2

做**肩部運動**可把手肘略彎以減少牽扯痛。



T1 dermatome

不得不認識的脊椎構造！

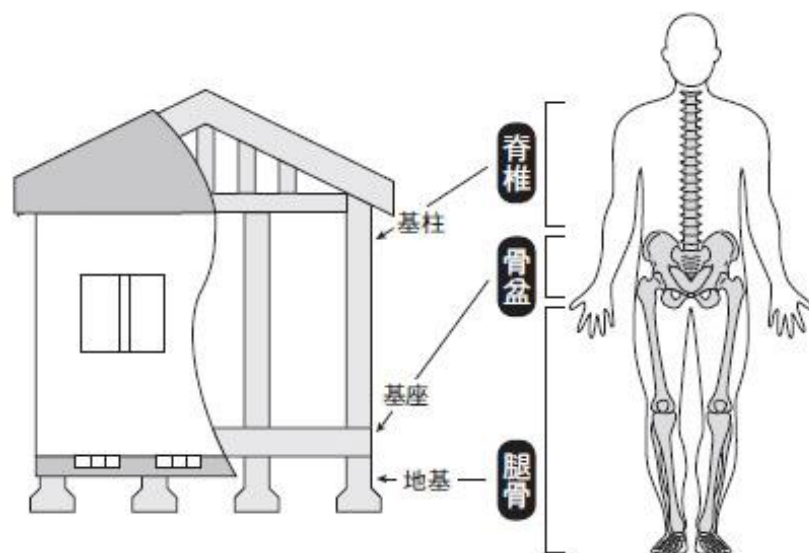


7節頸椎

12節胸椎

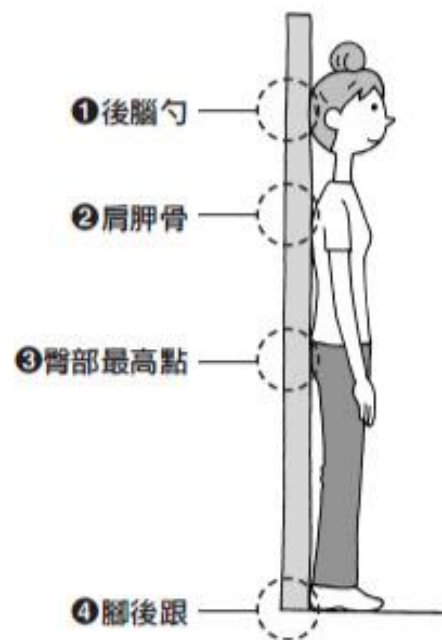
5節腰椎

人體如同房子，每個部位都是重要角色



「脊椎」是房子的基柱，「骨盆」是支撐柱子的基座，「腿骨」則是下方的地基。位於身體中心位置的骨盆扮演著重要角色。當骨盆歪斜，將會牽動全身骨骼，連帶影響所有的身體功能。

試一試！〔脊椎歪曲度自我檢測〕



請將背部貼牆站立，腳後跟緊緊貼牆，並將脊椎伸直。這時候後腦勺、肩胛骨、臀部最高點、腳後跟等四處都能緊貼牆壁的話，表示脊椎沒有歪斜彎曲。

背部或頸部必須出力才能讓四點貼牆的人；或是腰貼牆、臀部卻沒有貼牆的人，代表脊椎可能歪斜，從現在開始，請不要再輕忽這個現象。

簡單的小檢測

您可以和身邊的朋友一起做做看

A solid pink horizontal bar at the bottom of the slide.



Posture Score Card

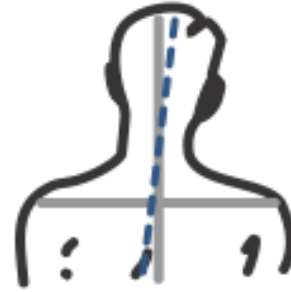
Head:

The head should be centered

Good - 10



Fair - 5



Poor - 0

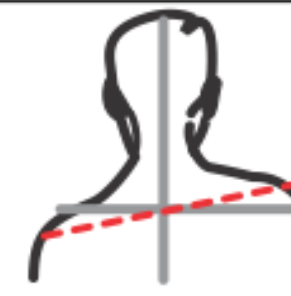
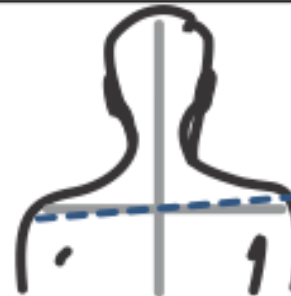


Your
Score

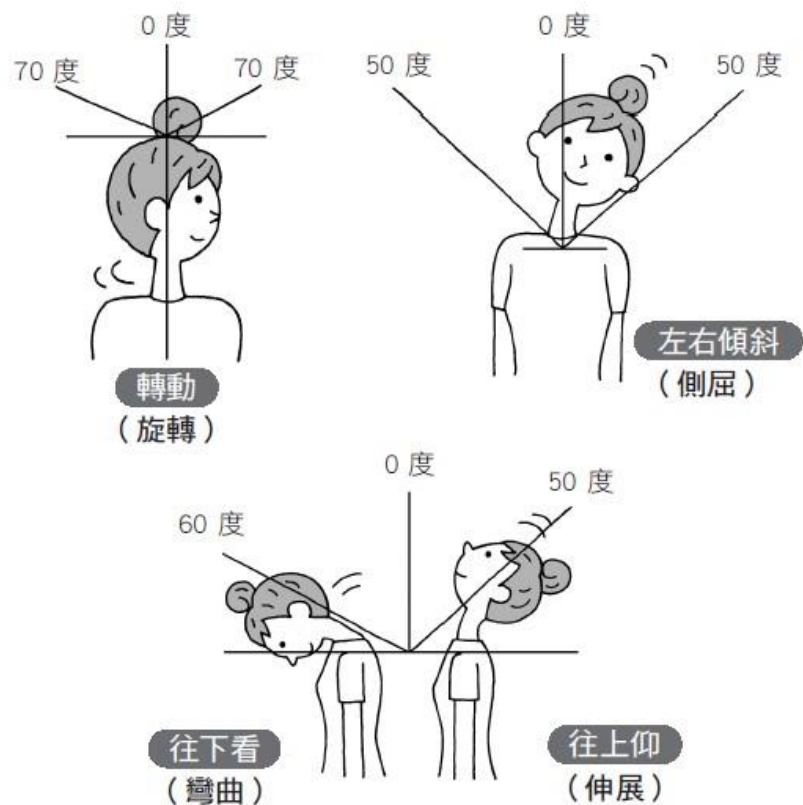


Shoulders:

The shoulders should be level



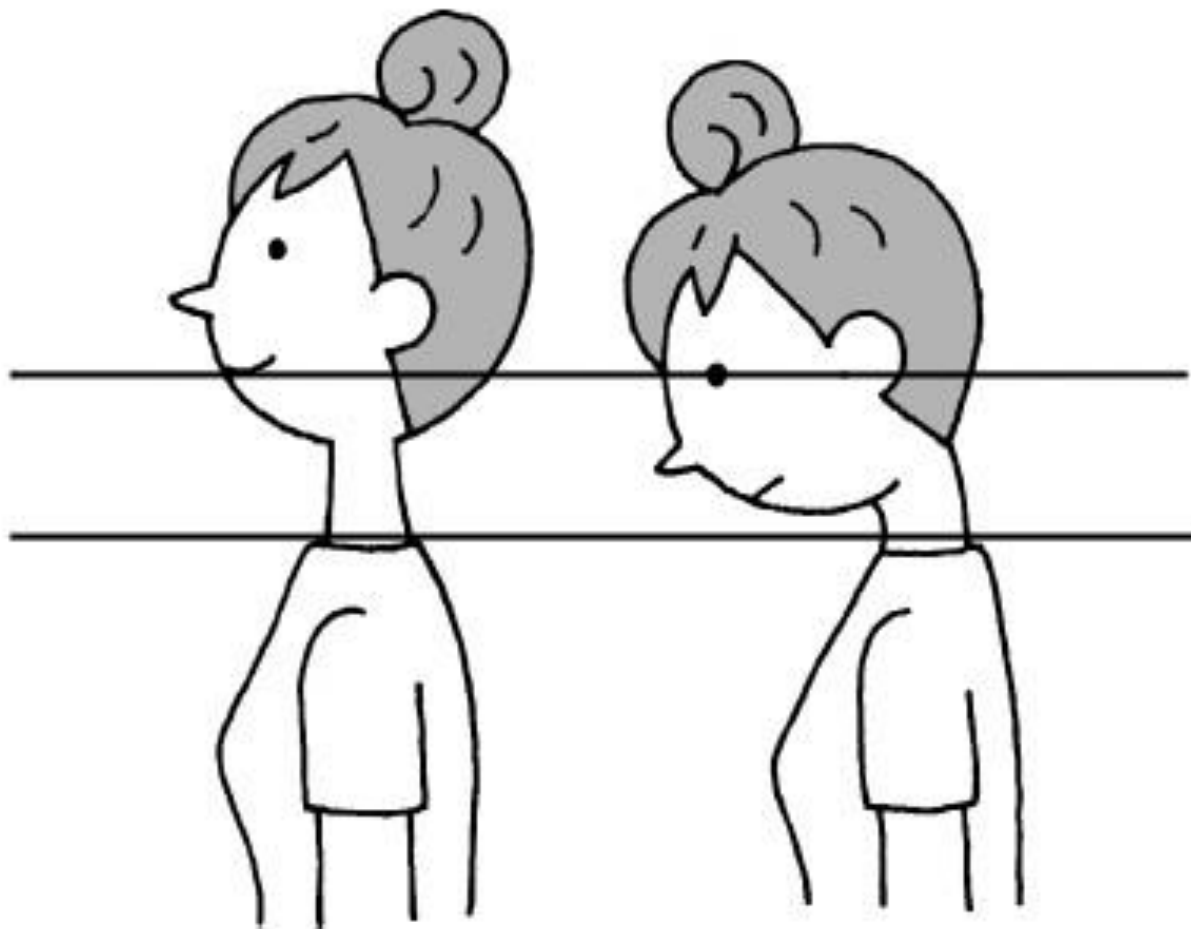
測量頸部的可動範圍



頭部往上仰的動作會越來越困難。

左右傾斜與轉動時，兩邊的幅度均等最為理想。

如果覺得活動困難，請針對肌肉緊繃的那一邊集中伸展，並利用熱敷舒緩肌肉，促進血液循環。



低頭習慣 頸部慢性疼痛 反覆發生的最大原因

當左右轉動頭部時，正常人都以上方線條為基準線轉動。然而，有低頭習慣的人，轉動頭部時後腦勺就會來到上方線條的位置、下巴位於下方線條上，呈現彎腰駝背的姿勢。

這個姿勢會使唯一沒有關節結構的肩胛骨肌肉緊張，過度拉扯而無法活動自如。漸漸地，上背部到肩膀的肌肉開始慢性僵硬，頸部也會產生慢性疼痛。

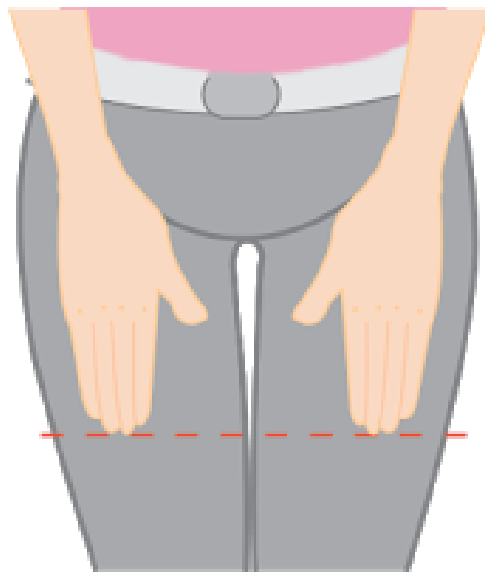
GO! GO!



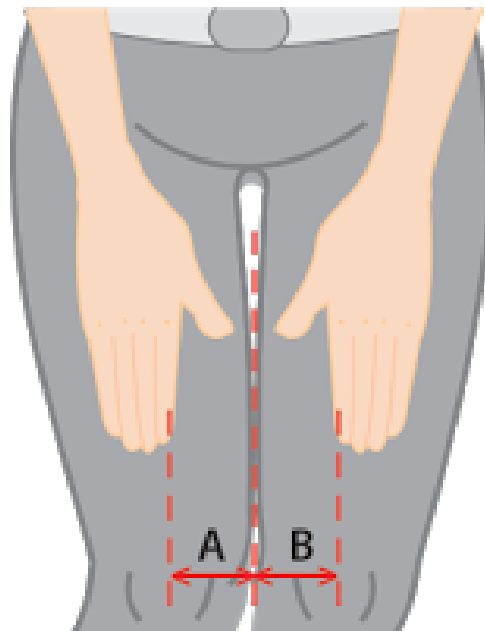
您是否有高低肩

身體站直，雙手放在大腿上，看左右手的中指哪一個比較長？

>> 如果左邊比較長，則右肩較高；反之亦然。



GO! GO!



您的盆骨是否不平衡？

身體坐正，把雙腿合起來，坐姿呈90度，雙手放在大腿上，用長尺量看左右膝蓋哪邊較突出？

>> 比較突出的一邊，則旋轉比較多（盆骨不平衡）。

GO! GO!



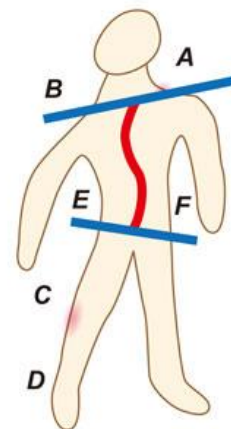
您是否有脊椎旋轉？

90度彎腰，請朋友站您背後，從後面看您兩邊肩膀是否平衡？

>> 如果有一邊較高，則您的脊椎已經旋轉，盆骨亦不平衡。



脊椎側彎了 怎麼辦？



發現問題

- A. 肌肉僵硬增加肩頸神經壓力。肩頸及頭部位置常沒在正中間。
- B. 肩膀肌肉軟弱無力，肩胛骨往後凸出。
- C. 肌肉僵硬小腿肌肉收縮。
- D. 腿有坐骨神經痛毛病，緊張的肌肉壓迫坐骨神經。
- E. 腰椎肌肉僵緊，腰背部常常酸痛。
- F. 腰椎肌肉無力

背面觀

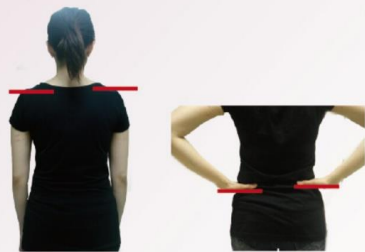


改善對策

- A. 肌肉伸展，維持頸椎及頭部位置在正中間。
- B. 肩膀及後上背部肌肉強化運動。
- C. 伸展小腿肌肉。
- D. 伸展小腿和大腿後側肌肉。
- E. 腰椎肌肉伸展運動。
- F. 強化腰椎肌肉的力量。

判斷側彎自己來!

★第一步：站姿下觀察肩膀及骨盆兩側



★第二步：觀察者位於受試者後方，受試者雙腿站直，身體向前彎呈90度鞠躬狀。



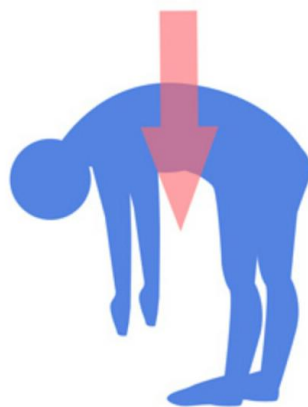
當站姿下(第一步)觀察可能有側彎時:

1 若背部無左右高低及肩胛骨隆起

➡ 非結構性脊椎側彎

2 前彎姿勢下，有出現脊椎兩側左右高低或肩胛骨隆起

➡ 結構性脊椎側彎

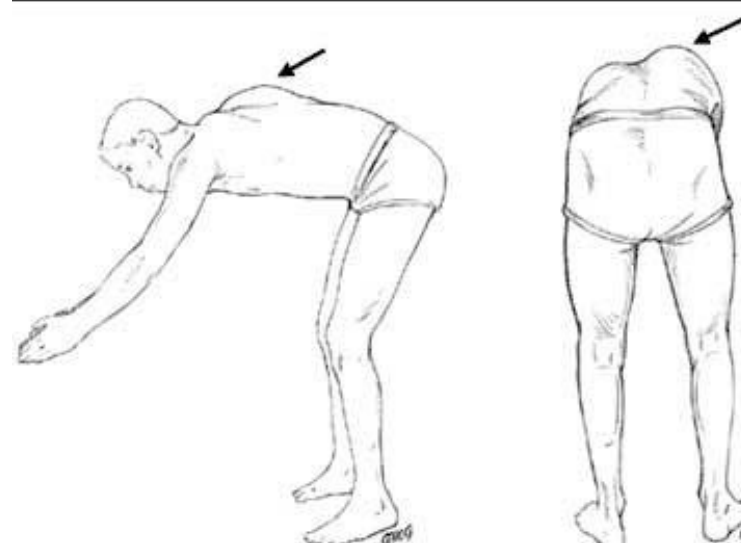


從正後方水平看背部

↑ 左側彎



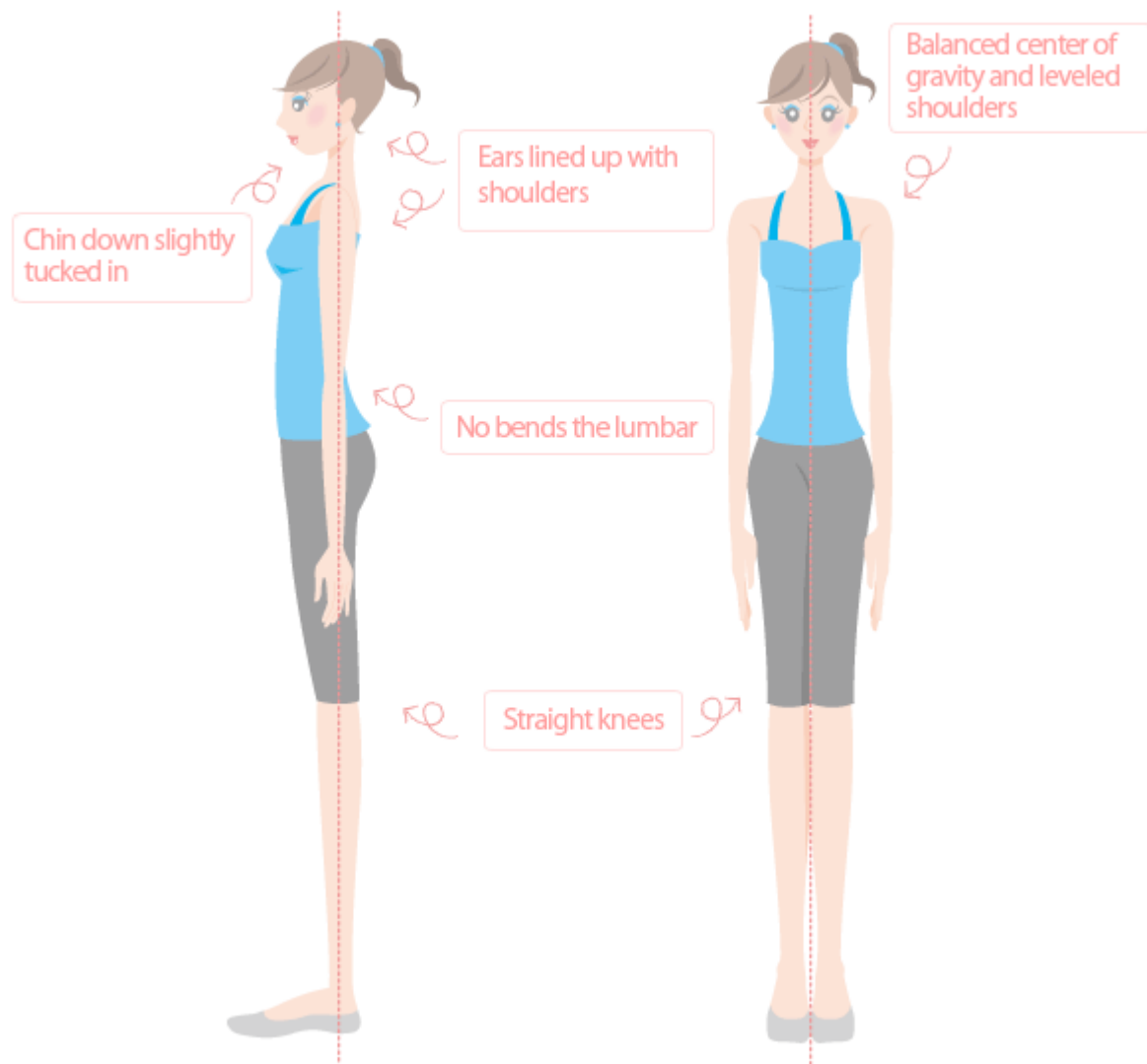
右側彎 ↑

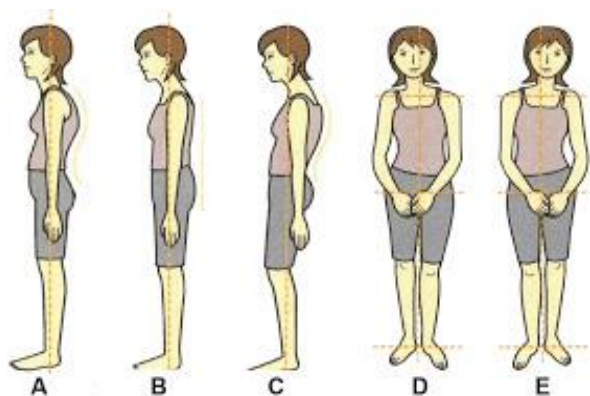


GO! GO!



Straightening out your posture



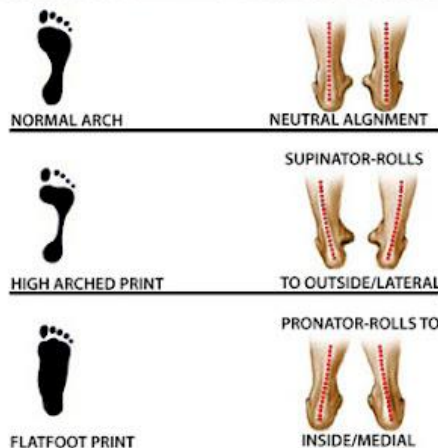


檢查您的站姿

身體站直，雙手自然下垂，對著全身鏡子檢查或請朋友在旁為您檢查您屬於哪一種體型？

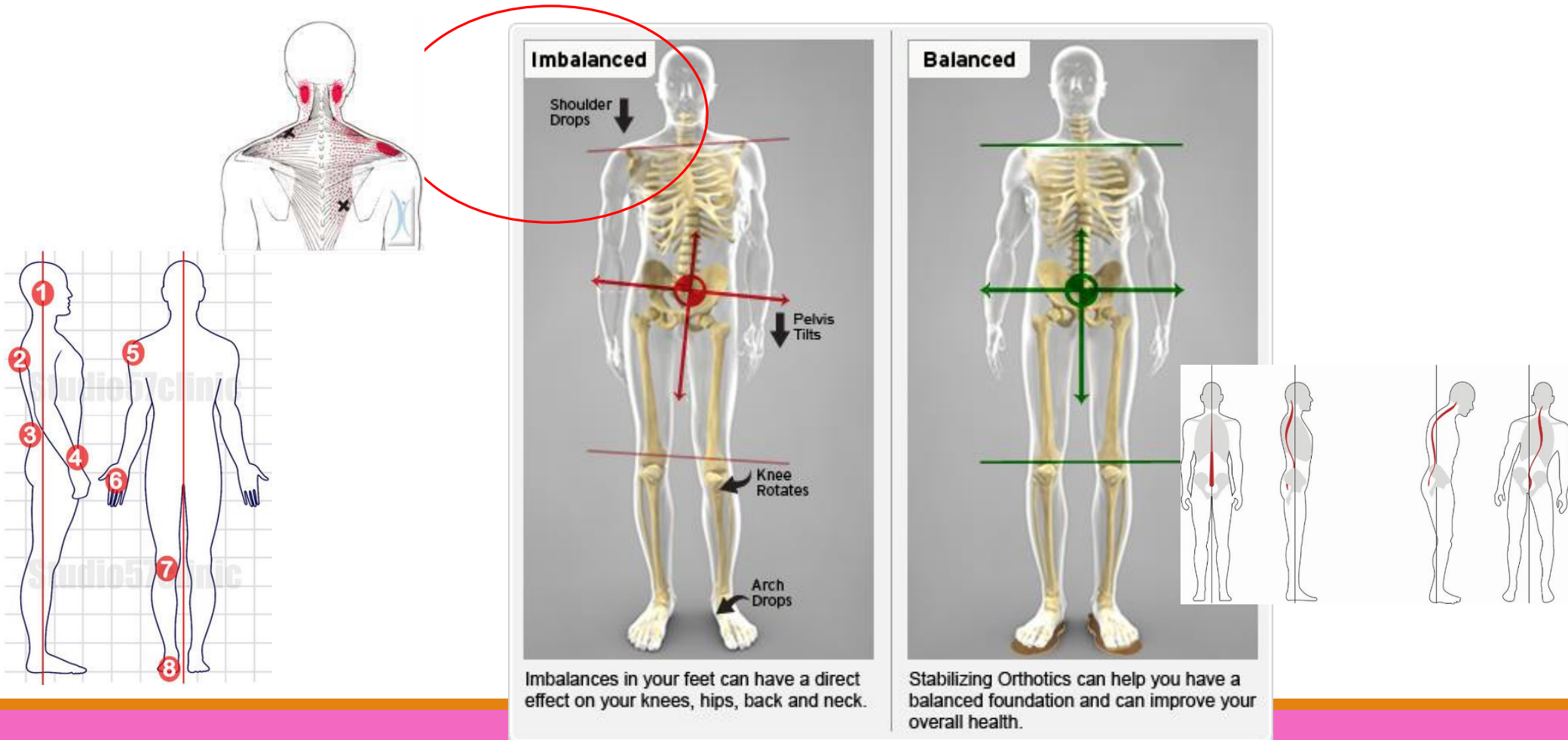
>> 骨架不平衡會影響一個人站立、步行、和坐著的姿態。優美的姿態會讓人對您有更良好的印象。

ARCH TYPE — FOOT ALIGNMENT



- A：盆骨向前傾
- B：盆骨向後傾
- C：貓背型
- D：左肩下垂
- E：右肩下垂

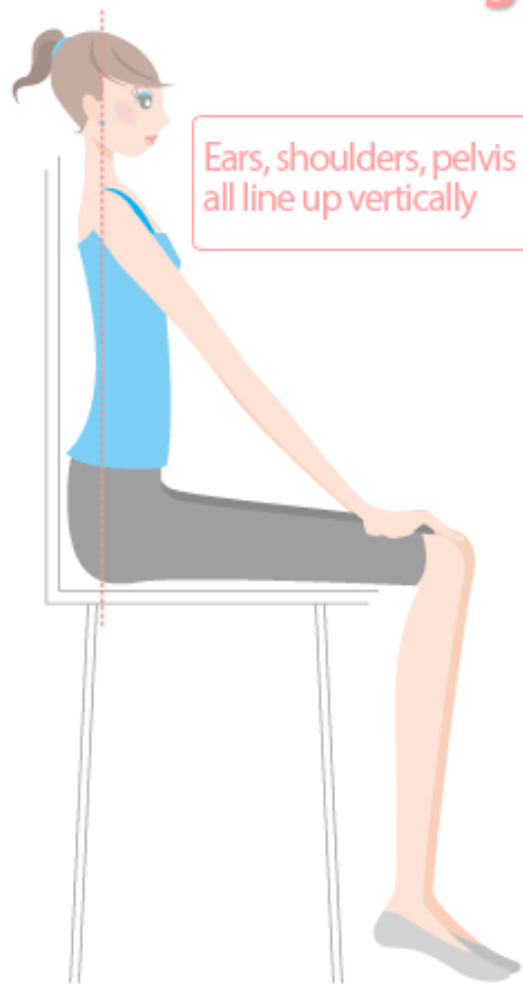
Imbalanced



GO! GO!

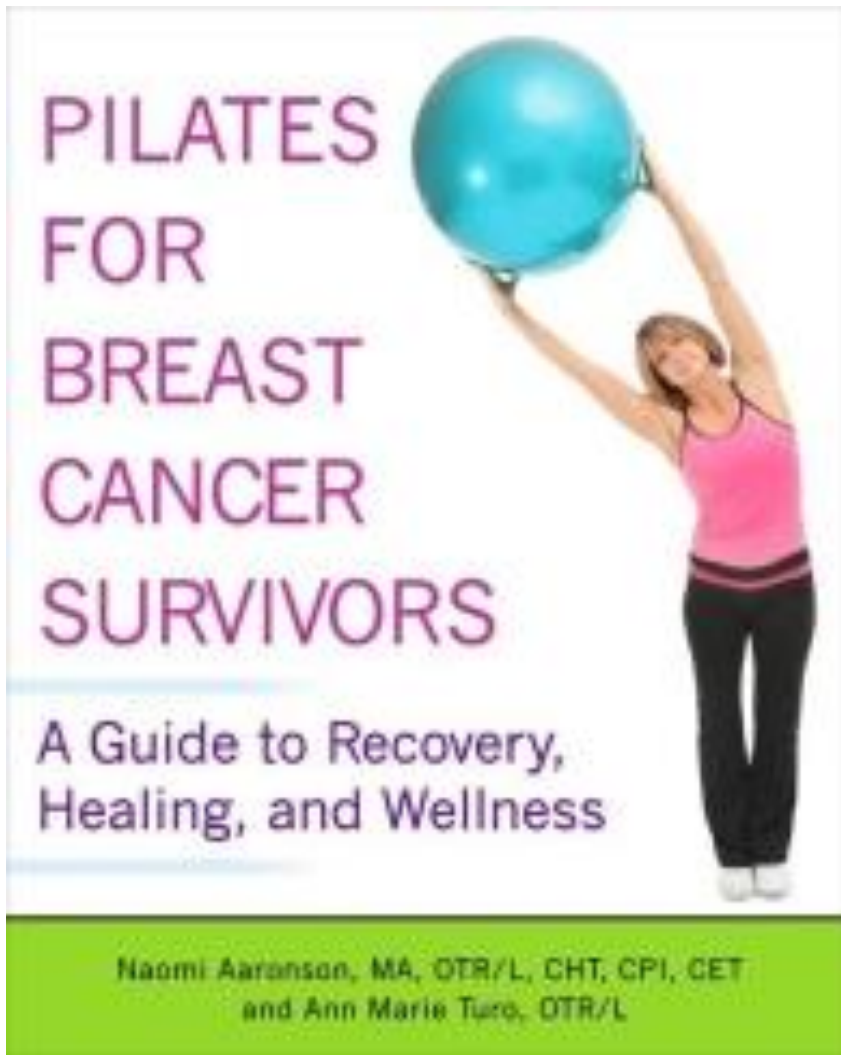


Acceptable posture while sitting

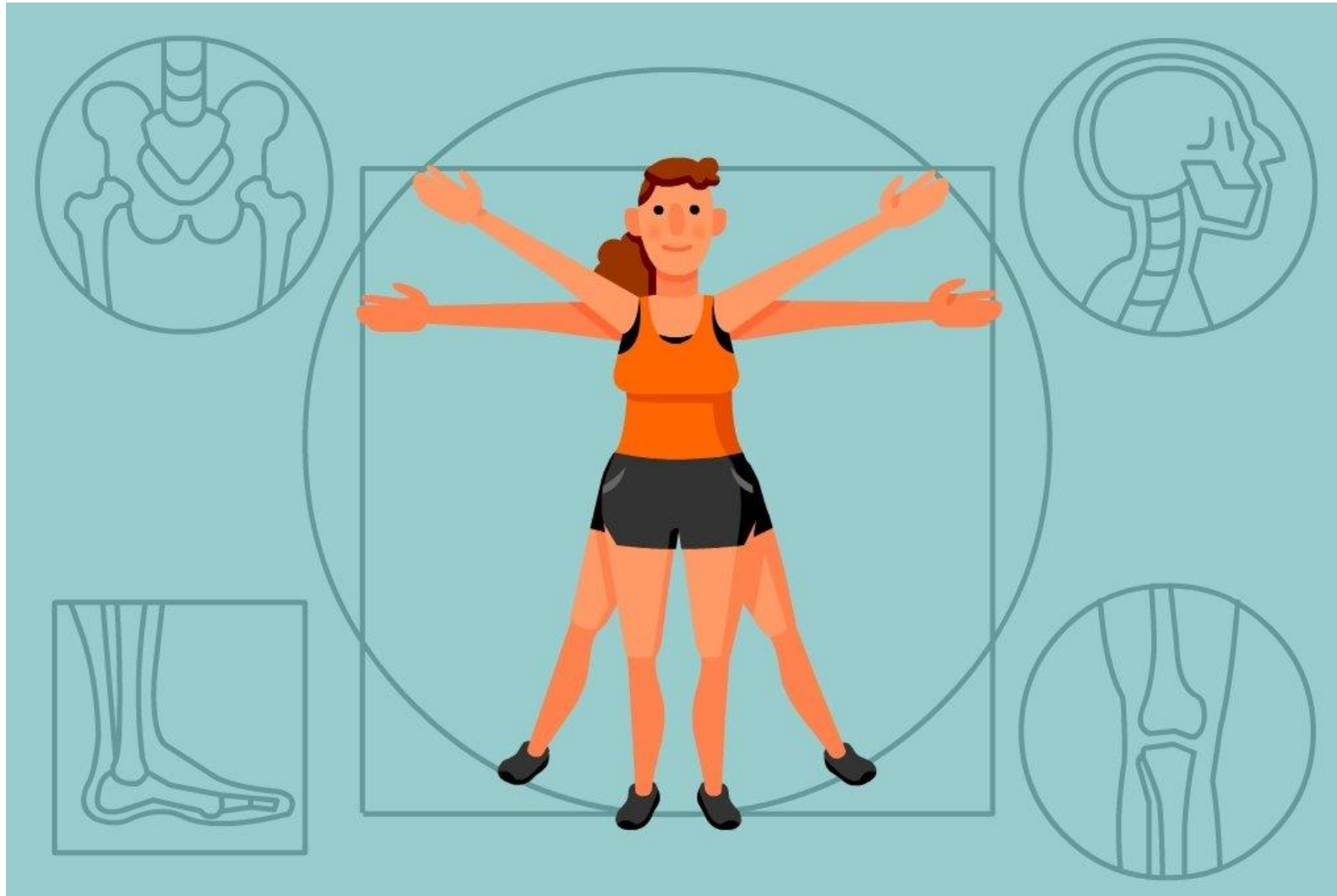


Ears, shoulders, pelvis
all line up vertically





普拉提



Good posture

Balanced upright posture with shoulders down and relaxed

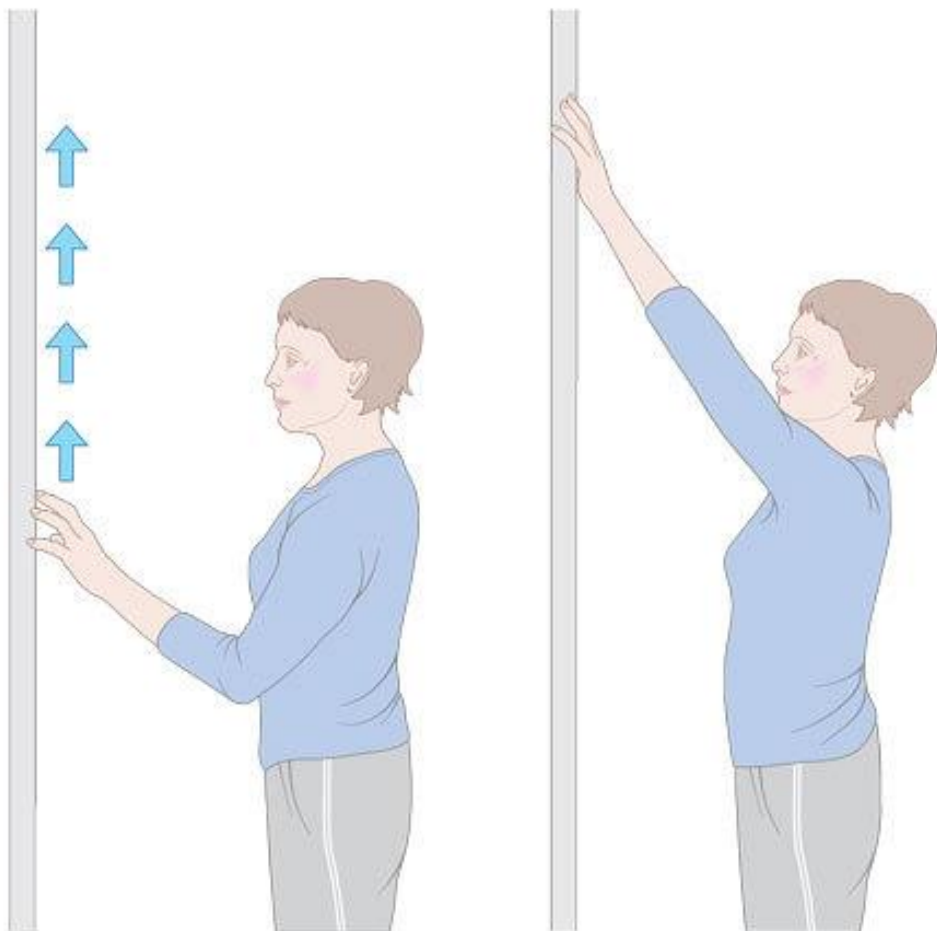
Abdomen tucked in

Poor posture

Sway back posture with rounded shoulders and over arched spine

Abdomen protruding

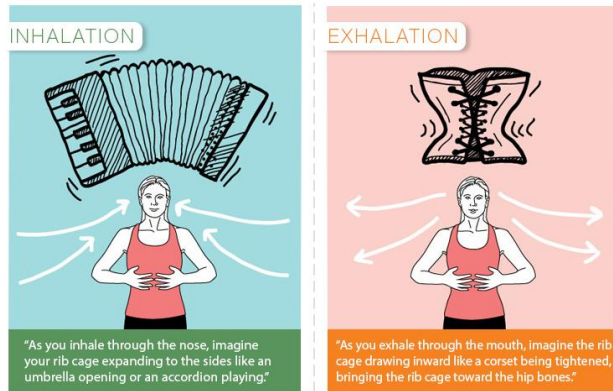




Cancer Research UK

呼吸的方法：

- ①用鼻子吸氣，用嘴呼氣，講究呼氣的深度，盡可能地運用腹式呼吸的方法。
- ②呼吸的速度不易太快，與動作的速度基本一致，不要憋氣進行訓練。



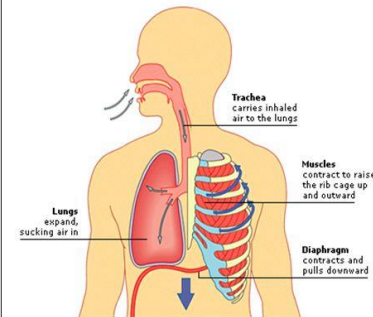
Sources: Pilates Illustrated, by Portia Page (Human Kinetics 2011)
Pilates Anatomy, by Rael Isacowitz and Karen Clippinger (Human Kinetics 2011)

③運動時注意呼氣，靜止時注意吸氣。這樣可以緩解因肌肉用力而給身體內部帶來的壓力。

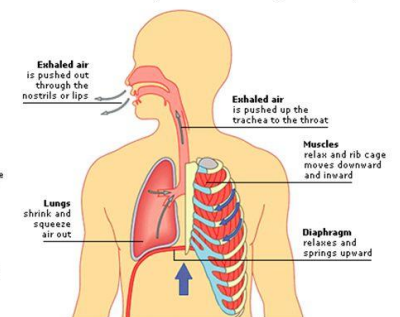
④通過控制呼吸，把注意力集中在呼吸上，減少人對肌肉酸痛的敏感度。

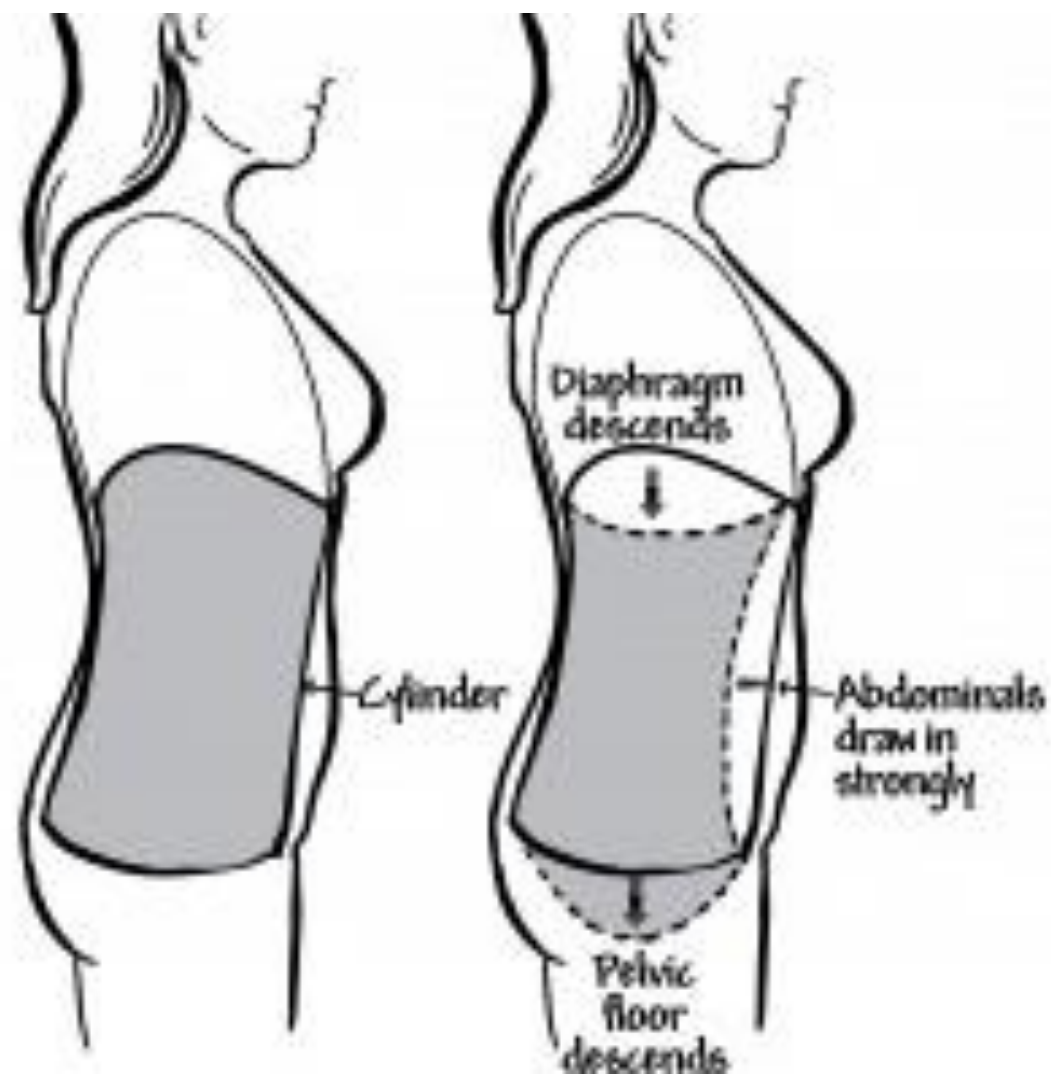
BREATHING DIAGRAM

Inhale (Breathing In)



Exhale (Breathing Out)

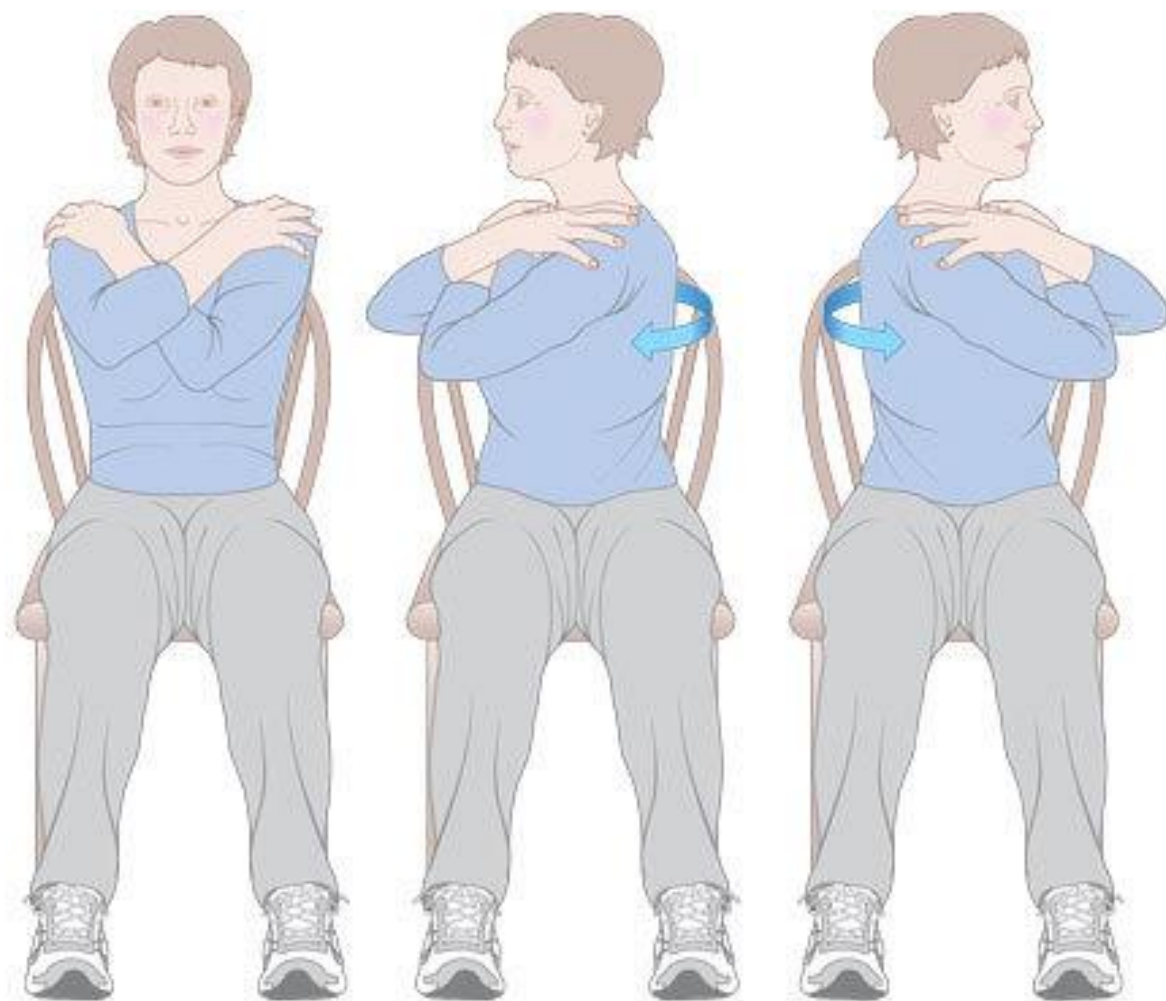




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Sit in a straight backed chair in a comfortable position and relax. Place both of your hands on your lower ribs, out to the side. When you breathe in, concentrate on pushing your ribs and hands out. When you let your breath out, let your hands go in and push in slowly. Repeat.



Cancer Research UK

Upper Extremity Stretches

Perform each stretch 3-5 times and hold 8-15 seconds



SHOULDERS & MID - UPPER BACK



TRICEPS & SHOULDERS



SHOULDERS & TRICEPS



TRICEPS



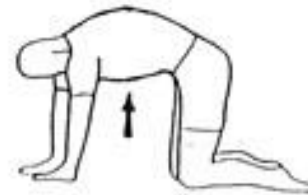
BICEPS & SHOULDERS



ARMS & SHOULDERS



CHEST & SHOULDERS



BACK



NECK & SHOULDER



TRICEPS & SIDES

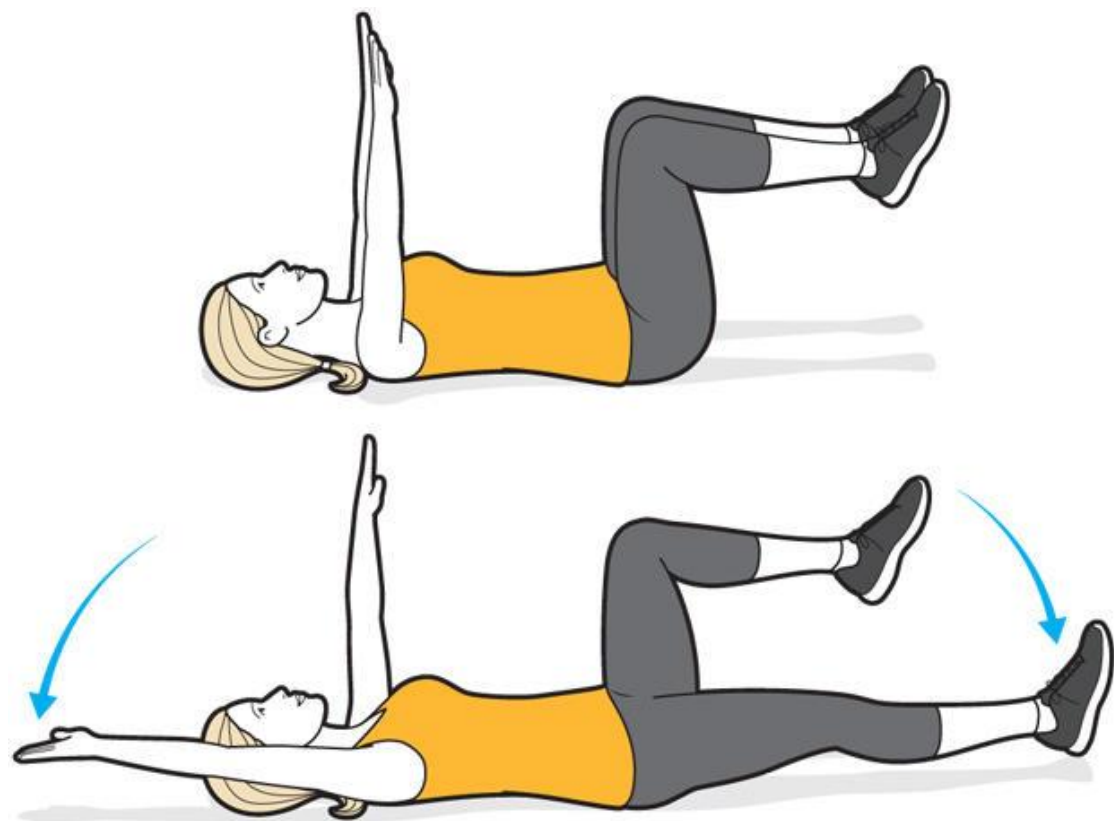


FOREARMS



SHOULDERS & TRICEPS & SIDES





HIGH MARCH TO LOW RUN

- A.** March in place, lifting your knees higher each time.
B. Run in place for 15 seconds.



SHOOT THE HOOP

- A.** Bend knees and lower into a squat.
B. Push up as though shooting a basketball.



REPEATERS

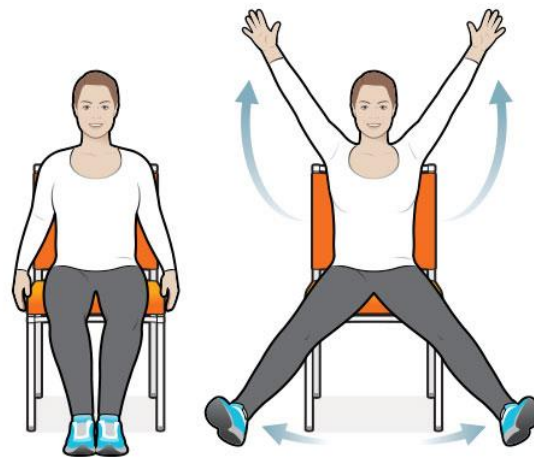
- A.** Step one foot forward, then lift opposite foot to knee.
B. Tap foot back to the floor and repeat lift 7 times. Change legs.



SQUAT TO KICK

- A.** Step feet out and sink into a squat.
B. Stand and extend one leg as though kicking open a door.





THANK YOU
