

# 橫隔膜呼吸法 Breathing and Pain

## 正確的橫隔膜呼吸已証實 可改善慢性的腰背痛<sup>4</sup>



### 什麼是橫隔膜呼吸法？

橫膈式呼吸，是一種呼吸方法。腹式呼吸法對人體的神經肌肉骨骼系統十分重要，正確的呼吸力學對脊椎及姿勢穩定亦相當重要<sup>1</sup>。若與一般自然的呼吸法比較，研究發現這種呼吸可幫助增加血液中的血氧水平及改善肺部的氣體交換<sup>2</sup>。

### 什麼是一個正常的呼吸力學？

一個正常的呼吸機制，胸腔，呼吸肌肉和橫膈膜之間都會參與運作。這些呼吸肌肉包括肋間肌、腹橫肌、頸部的深層肌肉和骨盆底肌肉<sup>3</sup>。正確呼吸時，較下的胸腔會產生一個類似“水桶手柄向上移動”的動作。(即是每當深呼吸時，你可感覺較下的肋骨在微微外移)

### 錯誤的呼吸方法會有什麼結果？

一些研究報告顯示，錯誤的呼吸方法可引致頸痛<sup>1</sup>。錯誤的呼吸方法會增加頸痛的次數及程度，引致慢性頸痛，同時可引起腰背痛。

### 橫隔膜呼吸法有什麼好處？

一些呼吸肌肉可助穩定脊椎及姿勢。正確作橫隔膜呼吸時，會使用主要的肌肉，幫助穩定脊椎及姿勢。因此，腹式呼吸法已証明可改善慢性的腰背痛<sup>4</sup>。

### 如何發現自我的呼吸方法是否正確？

- ▶ 呼吸時胸部(心口)的動作佔較多
- ▶ 呼吸時上胸部經常上移
- ▶ 欠缺了下側肋骨外展動作
- ▶ 呼吸時經常過分使用頸部及上背肌肉，如胸鎖乳突肌及斜方肌

### 一個正確呼吸方法的標準：

- ▶ 呼吸應由腹部開始。吸氣時，腹部應向兩邊外展；呼氣時，腹部應向內收縮
- ▶ 下側邊肋骨會向外展
- ▶ 上胸部不會向上移動

### 有什麼因素會影響到正常的呼吸機制？

- ▶ **力學因素:**肋骨的關節受限制或肌肉出現不平衡
- ▶ **心理因素:**意志消沉或出現焦慮症

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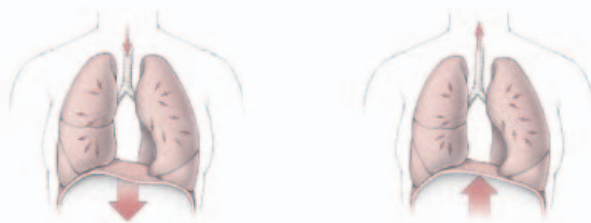
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HCC20121029-8E

Proper breathing using the diaphragm  
help reduce chronic neck and low back pain.



You may be frustrated by the chronic nagging low back pain and that your neck pain comes and goes. Causes of the chronic pain are multifactorial. The pain is usually related to faulty habit or behavior. Yet, one of the factors that people tends to neglect is their breathing. You may be surprised to learn that your breathing may be related to your neck and low back pain. Proper breathing using the diaphragm would stabilize the spine and help reduce chronic neck and low back pain.

### ***Are you breathing properly?***

Face a mirror and take a deep breath. If you find that you are raising the shoulders and your rib cage, you are breathing wrongly.

### ***What are the consequences?***

According to some researches, faulty breathing is highly correlated to the development of neck pain<sup>1</sup>. Faulty breathing may increase the episodes and level of neck pain, causing chronic neck pain. Besides, middle and lower back pain may be developed due to a faulty breathing, as the lower part of the spine is not stabilized.

### ***Why Diaphragmatic breathing is Important?***

Diaphragmatic breathing, also known as deep breathing, is a type of breathing method. It plays an important role in both spinal and postural stabilization<sup>1</sup>.

### ***What is diaphragmatic breathing?***

When you are breathing in correctly, the rib cage does not rise; it should expand to the front. The lower ribs should expand sideways and the entire abdomen should fill with air. Pressure should be felt as far down as the inguinal areas.

During a correct diaphragmatic breathing pattern, with a proper recruitment of the core muscle, spinal and postural stabilization will develop. Recurrence of low back pain would be reduced. Therefore, diaphragmatic breathing should be practiced by patients with chronic low back pain<sup>4</sup>. This method has been found to be associated with an increase in oxygen level in blood and improve the gas exchange in the lung when comparing to natural breathing method<sup>2</sup>.