

# 亞裔移民婦女促進社

## 家庭護理工作者環境改造培訓

Asian Immigrant Women Advocates:

### *General Introduction to Ergonomics Training for Home Care Workers*

本教材是由職業安全衛生局及美國勞工部提供的SH-24938-13-60-F-6 資助編製。並不一定反映美國勞工部的政策，又內容提及的商業名稱，產品或組織的名字亦不反映得到美國政府的確定。

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# 培訓目標

## Training Objectives

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1. 了解工傷和骨骼肌肉病變的症狀  
To understand workplace injuries and symptoms of Musculoskeletal Disorders
2. 了解工場受傷的風險因素  
To understand workplace injury risk factors
3. 了解及討論怎樣可以環境改造的辦法來解決  
To understand and discuss possible ergonomic solutions
4. 了解及討論工人採取可行“行動”的步驟  
To understand and discuss possible “action” step for workers



# 環境改造是甚麼？

## What is Ergonomics?

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- 將工作配合工人的一門科學

A science of fitting jobs to the workers.

- 集中於設計工作站，工具及工序以達到安全，舒適及有效率的環境

It focuses on designing workstations, tools and work tasks for safety, efficiency and comfort.

- 環境改造尋求方法去降低勞累，同時增進舒適，生產力，工作上的滿足感及安全度

Ergonomics seeks to decrease fatigue and injuries, along with increasing comfort, productivity, job satisfaction, and SAFETY.

# 環境改造可以幫助預防或改善哪些常見的工傷？

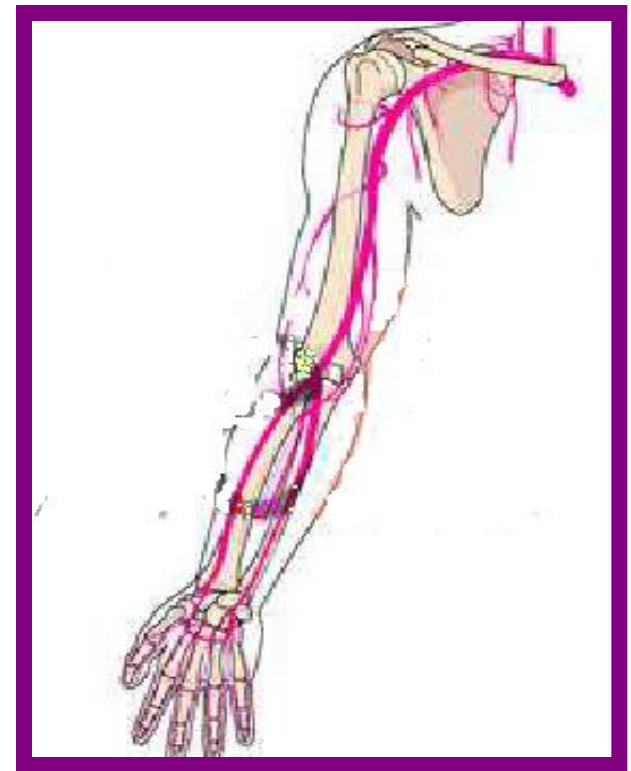
What are common workplace injuries that ergonomics can help prevent or improve?

- 由於不當行動和/或不依環境改造原則而造成的肌肉，腱，韌帶，關節，神經及椎間盤受傷

Injuries to the muscles, tendons, ligaments, joints, nerves and discs that are caused or aggravated by our actions and/or environment that does not follow ergonomic principles.

- 這又名叫「骨骼肌肉病變」

Also known as "MusculoSkeletal Disorders".

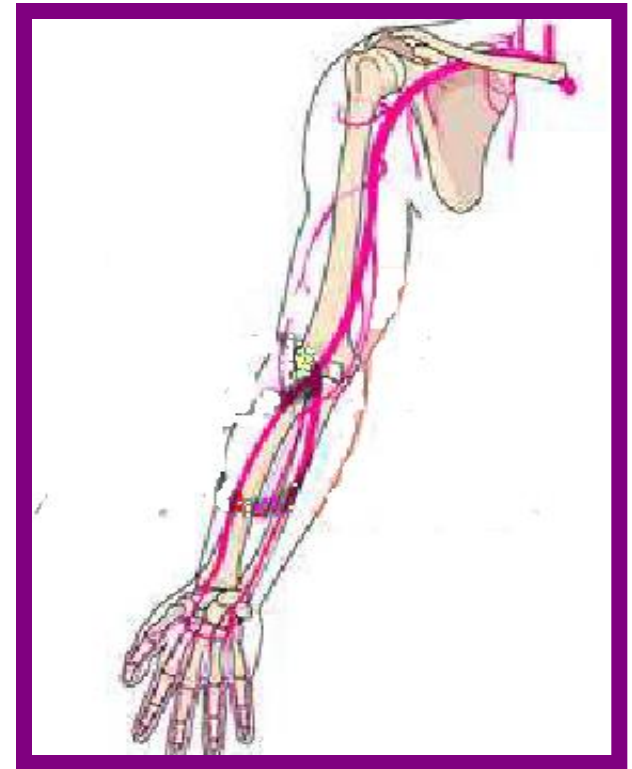


# 甚麼是骨骼肌肉病變？

What are Musculoskeletal Disorders?

- 由於不當行動或不依環境改造原則而造成的肌肉，  
腱，韌帶，關節，神經  
及椎間盤受傷或加劇傷痛

Injuries to the muscles, tendons, ligaments, joints, nerves and discs that are caused or aggravated by our actions and/or environment that does not follow ergonomic principles.





# 解剖學的探索

## Anatomy Review

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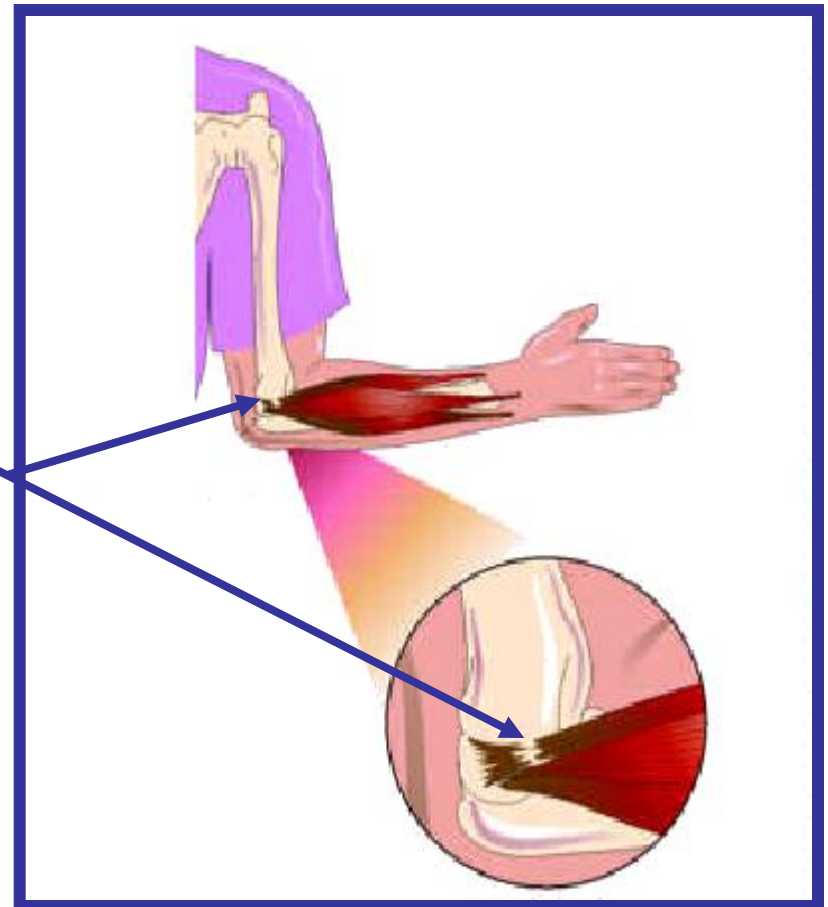
- 肌肉 – 提供身體各部份動力  
Muscles – Provide the power for you to move your body parts
- 韌 – 骨與骨之間的連結，以穩定關節  
Ligaments – Connects bone to bone, stabilizing the joints
- 韌帶 – 肌肉與骨骼之間的「滑輪」協助身體各部份的活動  
Tendons – “Pulleys” that attach muscle to bone, helping to move body parts
- 關節 – 骨與骨之間的連接  
Joints – Connection between bones.
- 神經 – 腦部與身體其他各部份的通訊  
Nerves – Carry messages between the brain and other parts of the body.

# 使用肌肉過度會怎樣？

What happens when you use your muscles too much?

使用肌肉過度  
會令肌肉輕微撕裂...

When you use your  
muscles too much, They  
get little tears...



# 令肌肉腫脹及感到...

This makes your muscle swell and feel ...

發熱!

Hot!



酸痠!  
SORE

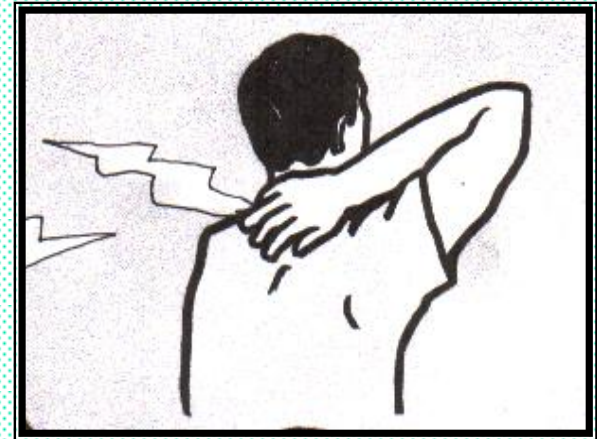


# 這是骨骼肌肉病變的警號：

These are the warning signs of  
MusculoSkeletal Disorders:



- ◇ 痛楚 pain
- ◇ 麻痺 numbness
- ◇ 刺痛 tingling
- ◇ 無力 weakness
- ◇ 腫脹 swelling
- ◇ 發熱 hot feeling



妳若有任何上述的徵狀，就要採取行動了！  
If you feel any of these symptoms, it's time to take action!



# 尋求早期醫治

Seek early medical treatment

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徵狀越長不獲治療，則日後越難治好！

The longer you have symptoms without treatment, the harder it will get to treat them successfully later!



# 服務業工人因工受傷

## Workplace Injuries Among Service Workers

- 家庭護理工作者執行類似如房間清潔員，洗碗工人，廚師，服務員，和護士助手的工作任務

Home care workers perform similar workplace tasks as Housekeepers, Dishwashers, Cooks, Servers, and Nurses Aides.

- 下圖顯示了這些工人的工傷率

The following chart shows workplace injury rates among these workers.

# 服務業工人因工受傷

## Injuries Among Service Workers

累積性創傷 Cumulative Trauma Injuries

酒店服務人員之間的比較 Comparison among hotel service workers



房間清潔員



洗碗工人



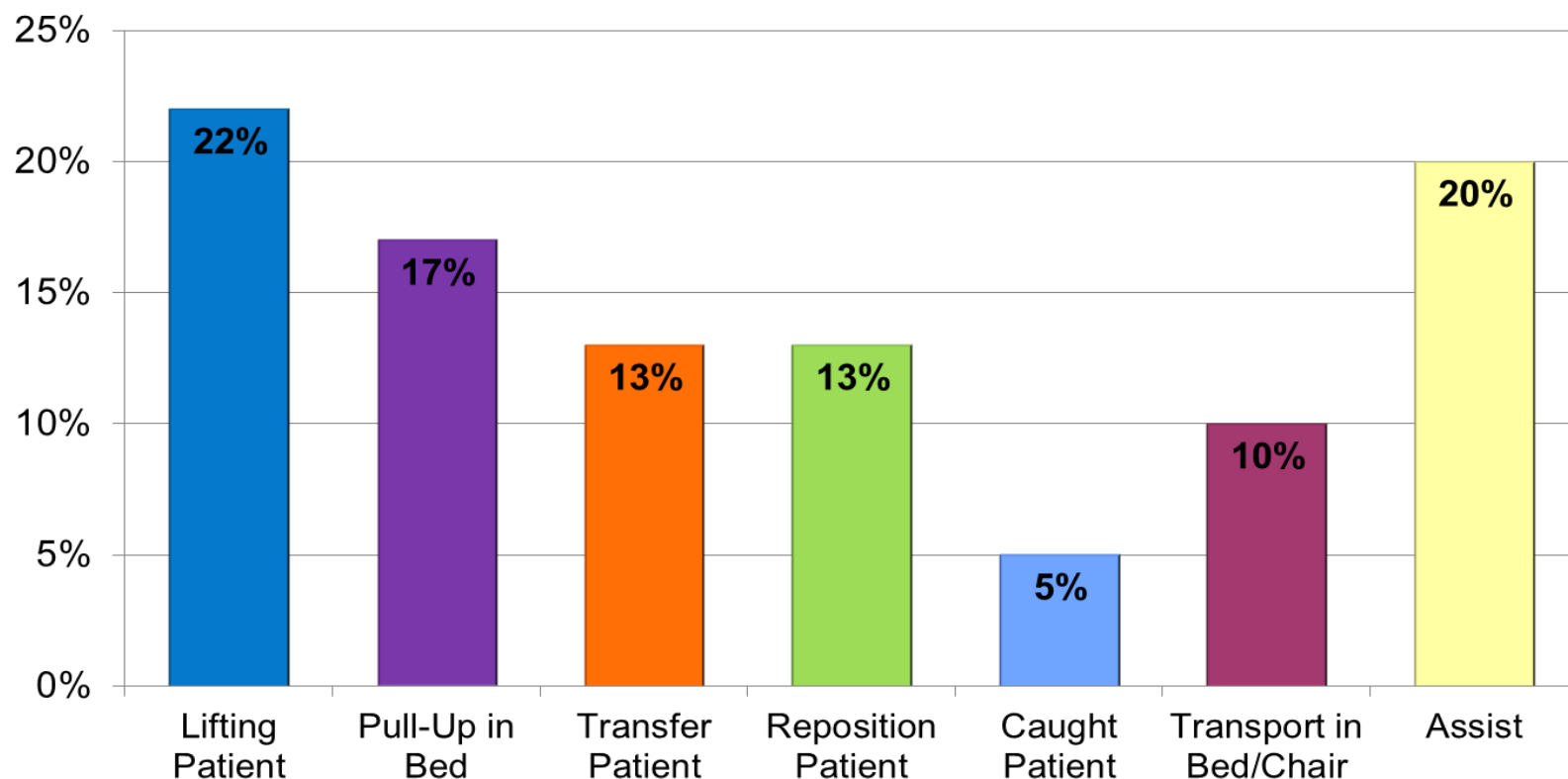
廚師



服務員



# 護士和護士助理因在處理病人時受傷的傷害索賠 Injury Claims Resulting from Patient Handling Nurses and Nurses' Aides (n = 630)



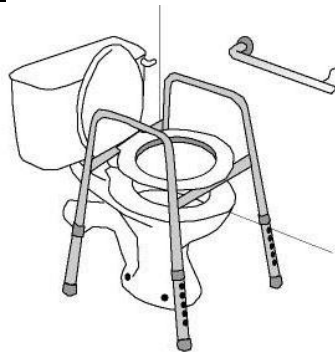
升降病人 床上拉起 轉移病人 重新放置病人 抓住病人 病床/椅子 協助  
1997-2003 運輸 13

# 具有最高風險因素的活動

## The activities with the highest risk factors

- 因起重，協助或拉病人從床上起來而受傷的佔護理工作者的**60%**

Lifting, assisting or pulling patients up in bed account for approximately 60% of ergonomic injuries for nursing home workers.





# “最佳實踐” 處理病人的實例

## Examples of a ‘Best Practice’ Patient Handling

- 一些高級的設施有“無升降的政策”或“最小的手動升降的政策”，以避免工人受傷

Some senior facilities have a “No-Lift Policy” or “Minimal Manual Lift” policy to avoid worker injuries.



# 家庭護理工作者

Home Care Workers

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## ■ 我們如何才能防止工傷?

How can we prevent workplace injuries?





# 預防骨骼肌肉工傷

## To Prevent Musculoskeletal Workplace Injuries

- 找出環境改造風險因素

Identify ergonomic risk factors

- 環境改造風險因素是引致身體勞損，導致受傷的工作環境

Ergonomic risk factors are workplace situations that cause wear and tear on the body and can cause injury

- 尋找方法去減少或消除這些因素

Work on finding ways to reduce or eliminate them

# 識別常見的風險因素及解決辦法

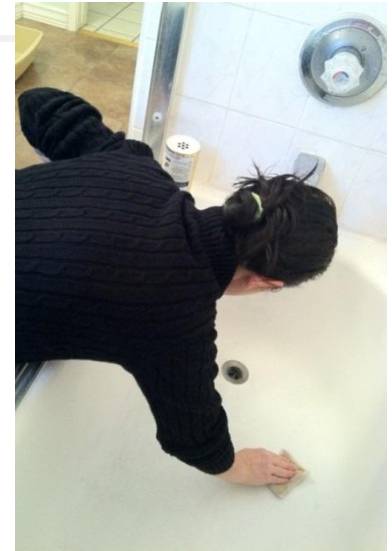
## Identifying Common Risk Factors & Solutions

- 風險因素：不良姿勢

Risk Factor: **Awkward Posture**

- 定義：彎腰，探腰，跪下，蹲下或身體任何部份時間太長

Definition: Prolonged bending, reaching, kneeling, squatting, or twisting any part of your body



# 風險因素和解決辦法

## Risk Factors & Solutions

可解決辦法：重設工序及儀器以保持身體在較「中正」的位置

Possible Solutions: Redesign tasks and equipment to keep the body in more “neutral” positions



# 風險因素及解決辦法

## Risk Factors & Solutions

- 風險因素：重力的行動

Risk Factor: **Forceful Motion**

- 定義：需要過度的力量去做拉，推，敲擊，提舉的動作

Definition: Excessive effort needed to do tasks such as pulling, pushing, pounding, lifting



# 風險因素和解決辦法

## Risk Factors & Solutions

- 可解決的辦法：重新設計工序以減少費力；增加員工；使用機械以協助

**Possible Solutions:**  
Redesign task to reduce the exertion needed; assign more staff; use mechanical assists





# 風險因素及解決辦法

## Risk Factors & Solutions

- 風險因素：直接壓力  
Risk Factor: **Direct Pressure**
- 定義：身體與硬面或尖角接壓時間太長

Definition: Prolonged contact of the body with a hard surface or edge



# 風險因素和解決辦法

## Risk Factors & Solutions

- 可解決的辦法：改善工具及儀器的設計或擺放以減輕壓力；提供軟墊物

Possible Solutions: Improve tool and equipment design or layout to eliminate pressure; provide cushioning material



# 風險因素及解決辦法

## Risk Factors & Solutions

- 風險因素：震動  
Risk Factor: **Vibration**
- 定義：使用震動性的用具或儀器

Definition: Using vibrating tools or equipment





# 風險因素及解決辦法

## Risk Factors & Solutions

- 可解決的辦法：
- 避免緊握把手
- 放輕手握力並經常換手
- 使用延長軟管和工具，以減少接觸振動設備

### Possible Solutions:

- Avoid tight grips
- grip loosely and alternate hands frequently
- use extension hoses and tools to reduce contact with vibrating equipment



# 風險因素及解決辦法

## Risk Factors & Solutions

- 風險因素：工作壓力

Risk Factor: **Work Stress**

- 定義：包括工作節奏快，休息時間不足，雇主情緒波動，拆分輪班工作，不良工序，或監管不力

Definition: Includes fast-paced work, inadequate breaks, employer mood swings, split work shifts, poor work organization, or poor supervision



# 風險因素和解決辦法

## Risk Factors & Solutions

- 可解決的辦法：編定合理的工作量，足夠的小息，不同的工種，個人的自治力

Possible Solutions: Establish reasonable workload, sufficient breaks, task variety, individual autonomy



# 風險因素及解決辦法

## Risk Factors & Solutions

- 風險因素：重複

Risk Factor: Repetition

- 定義：同一動作不斷重複

Definition: Making the same motion over and over



# 風險因素及解決辦法

## Risk Factors & Solutions

- 可行的解決方案：重新設計工序減少重複；經常換手；增加重複動作之間的休息時間；以不同的動作工序循環

Possible Solutions: Redesign task to reduce repetitions; alternate hands frequently, increase rest time between repetitions; rotate among tasks with different motions





## 討論Discussion:

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- 你在你的工作上要面對多少危險因素？  
How many risk factors do you face in your work?
- 哪些是最常見的，哪一些是可行的解決方案？  
Which ones are the most common and what are some possible solutions?

# 風險因素及解決辦法

## Risk Factors & Solutions

- 你面對風險因素越大，受傷的機會越大

The more risk factors you face, the greater your chance of injury.

- 接觸風險因素越長，受傷的機會越大

The longer you are exposed to a risk factor, the greater your chance of injury.

- 減少或消除風險因素，受傷的機會減低

By reducing or eliminating risk factors, the chance of injury can be decreased.



# 採取行動！ Take Action!!

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- 與其他家庭護理工作者傾談

Talk to your other home care workers

- 與你的僱主傾談：僱主是負責工作環境的

Talk to your employer: employer is responsible for work environment.

- 組成安全委員會討論及預防工地的受傷

Organize a safety committee to discuss and prevent workplace injuries.





# 僱主要負責

## Employer is responsible

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- 超過一位僱員獲診斷是工傷

More than one employee has been diagnosed with an ergonomic injury

- 傷自同一工種

From the exact same tasks

- 醫生診斷為與工作有關

Have been diagnosed by a doctor as work related



# 加職業安全衛生署 Cal/OSHA

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- 僱主必須依循名為加州職業安全衛生署(DOSH), 即是Cal / OSHA, 的政府機構所制定的工地安全條例。這些條例保障工人在工地受到危害，生病及受傷

Employers must follow workplace safety regulations made by a government agency called the Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA. These regulations protect workers from hazards, illnesses, and injuries in the workplace.



# 加州職業安全衛生署

## Cal/OSHA

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- 若僱主違反這條例，可向加州職業安全衛生署作健康及安全投訴

If an employer violates such regulations, a health and safety complaint can be reported to Cal/OSHA.

- 投訴是守密的。加州職業安全衛生署會調查該工地是否遵照這些安全條例

Complaints are confidential. Cal/OSHA can investigate to see if the workplace is following these safety regulations.



# 總結：緊記...

## In Conclusion: Remember to...

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- 減少及消除環境改造風險因素

Reduce and eliminate ergonomic risk factors

- 徵狀出現時要及早治療

Get early treatment if symptoms arise

- 採取行動！

Take Action!!

- 安全委員會

Safety Committee

- 向負責你的全工作安全環境的僱主傾談

Talk to your employer who is responsible for your safe work environment

- 加州職業安全衛生署

Cal/OSHA


問題

Questions

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# 謝謝!!

## Thank You!!



本培訓資料節錄自加州公共健康部，加州勞資關係部，柏克萊加大職業及環境健康中心的工人職業安全，健康專訓補充單元，德克薩斯州大學，休斯敦健康科學中心，俄亥俄州立大學的環境改造學會及美國勞工部海姆斯護理準則的修訂版. 2009.

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