

# The challenge of preventing musculoskeletal disorders at the working place

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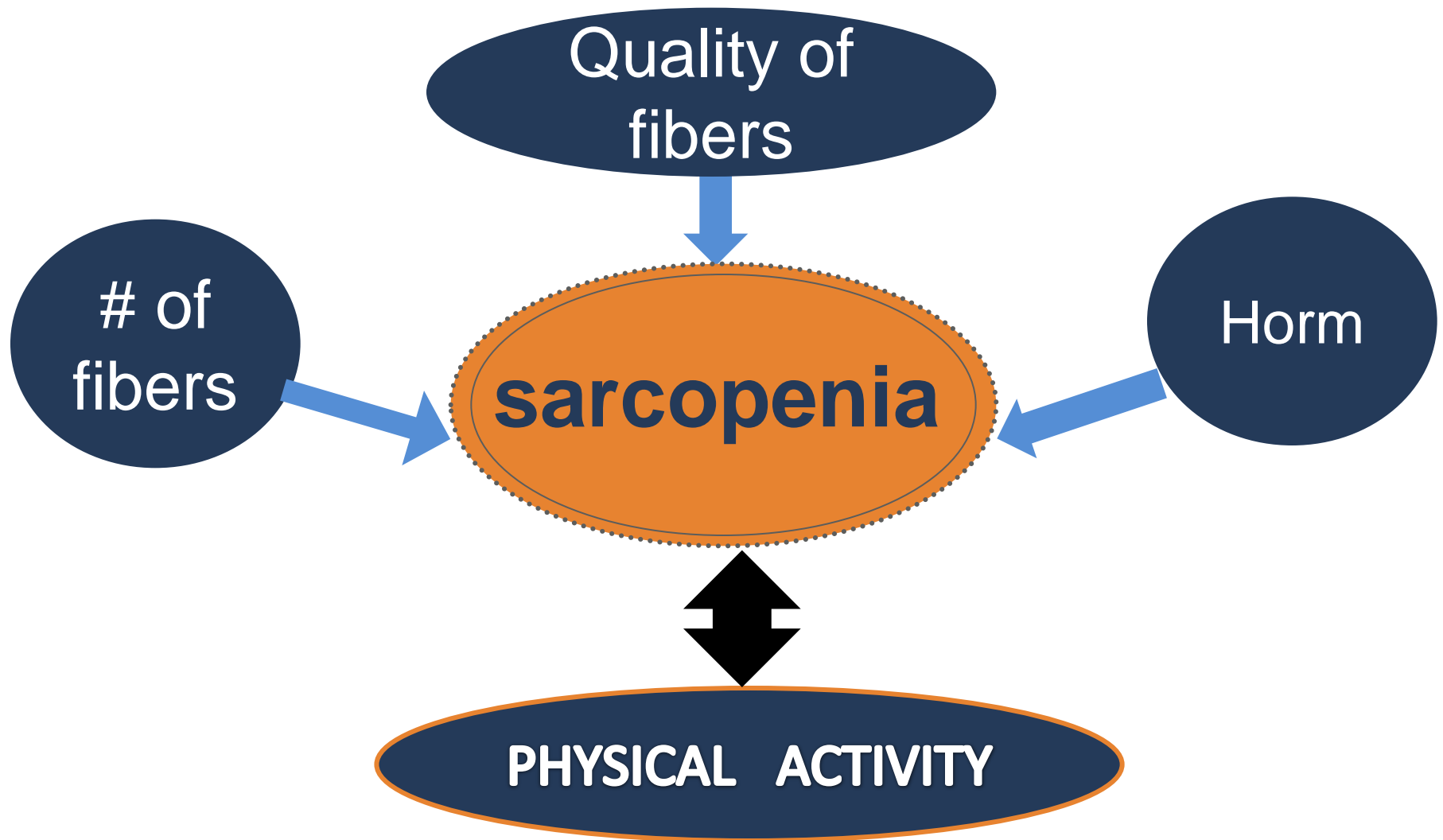
St Antoine University Hospital - Paris



**“Lack of activity destroys the good condition of every human being, while movement and methodical physical exercise save it and preserve it.”**

**– Plato 380BC**

● AGING = REDUCTION of muscle mass & structure

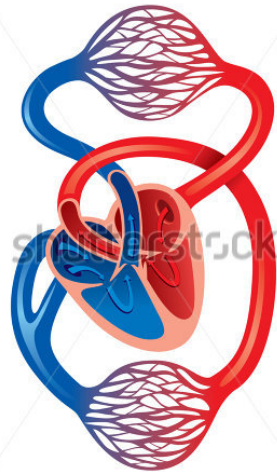
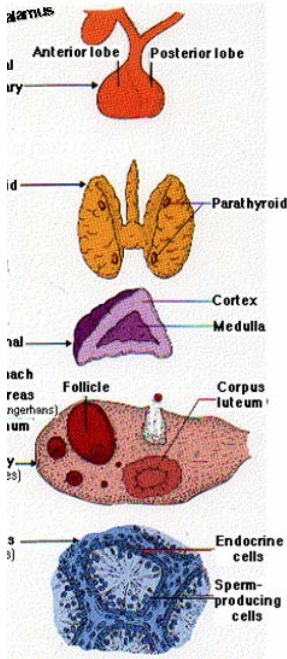




**Irrefutable evidence**

**PHYSICAL ACTIVITY**

**sarcopenia**



- **Low back pain**
- **Fall – fractures**
- **Osteo Arthritis**

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## Benefits of promoting physical activity - **EMPLOYERS:**

- Positive effects on job performance
- Positive effects on absenteeism & presenteeism
- Increase employee self-confidence
- Job satisfaction

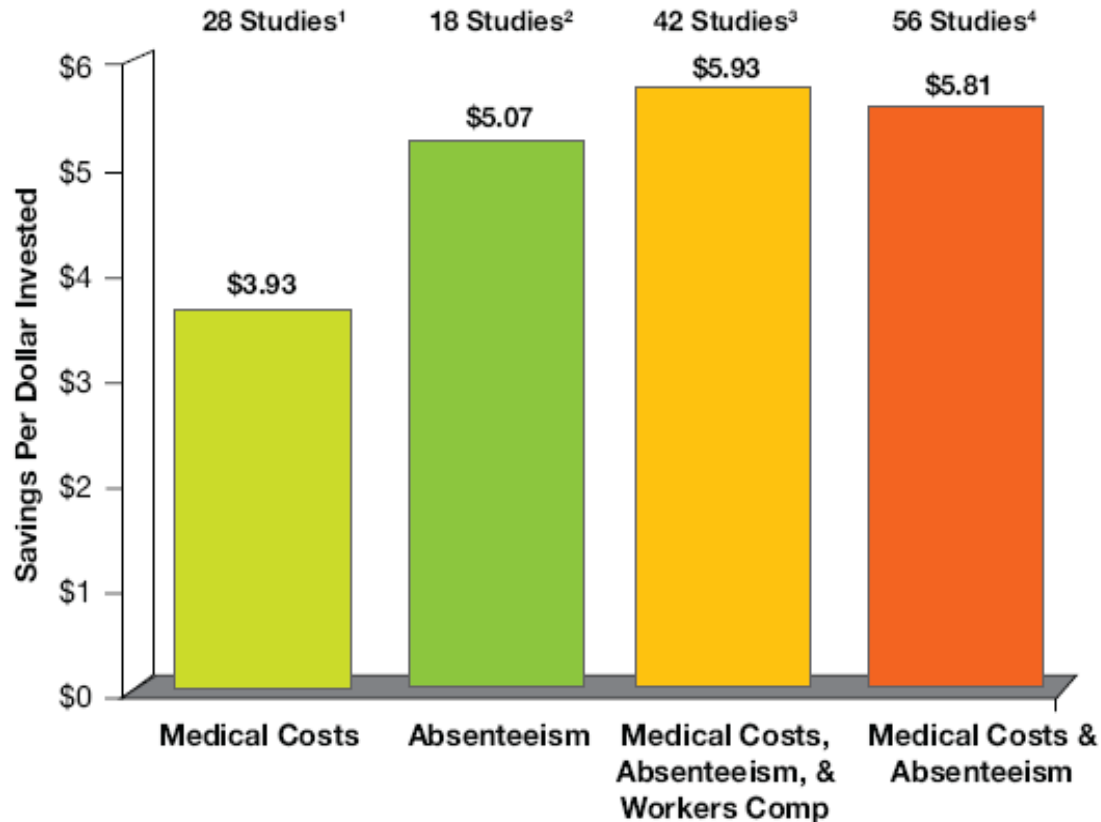


**Cost Effectiveness  
Proven Return on Investment**



# Return on Investment In Worksite Health Promotion

## American Institute for Preventive Medicine -Wellness White Paper - 2008



1. Source: Aldana, SG, *Financial impact of health promotion programs: a comprehensive review of the literature*, *American Journal of Health Promotion*, 2001, volume 15:5: pages 296-320.
2. Source: Aldana, SG, *Financial impact of health promotion programs: a comprehensive review of the literature*, *American Journal of Health Promotion*, 2001, volume 15:5: pages 296-320.
3. Source: Chapman, LS, *Meta-evaluation of worksite health promotion economic return studies*, *Art of Health Promotion*, 2003, 6:6, pages 1-16.
4. Source: Chapman, LS, *Meta-evaluation of worksite health promotion economic return studies: 2005 Update*, *Art of Health Promotion*, 2005, p. 1-16.



## Return on Investment



- Weak effectiveness evidence
- PA maintained long enough to obtain the health benefits
- Uncertainty surrounding the health cost saving estimates



- Beneficial to the employer in terms of reduced absenteeism/presenteeism
- \$1.59USD returned for every dollar invested in the workplace physical activity program (Bown – Anderson)



**The importance of promoting physical activity is undeniable**



## Barriers to physical activity at work

### Personal

- Information
- Motivation
- No obligation

### Organisational

- Flexible work hours
- Locker & shower
- Exercise facilities
- Qualified personnel



**The goal is to sustain Physical Activity**

## ● Effective exercises

**Aerobic exercises:**  
rhythmic & repetitives movements  
of larges muscles



**Progressive resistance exercises**

**Flexibility exercises**







# Why should workplace interventions be used to promote physical activity?

1

**Information and motivation without changing the environments are ineffective at long-term** (Golaszewski et al., 2008; Sallis and Glanz, 2009).

2

**Individuals with higher worksite support had higher mean physical activity score** (Tamer et al., 2011)

3

**Workplace policies and environmental changes were strongly and consistently associated with leisure-time physical activity** (Lucove & al., 2007)

# ● The challenge of preventing musculoskeletal disorders at the working place

**Thanks for your attention**



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