UQ Wellness Seminar

Exercise in the Office

The Evolution of Man

Categories of Energy Expenditure

Activity  Inactive  Sedentary

Changing Times

- Clerical and administration workers are the most sedentary occupation (22-23 hours) per working week.
- Technicians and trades workers (8.5 hours)
- Workplace technology leading to a new type of injury e.g. personal devices.


Risks Associated With Sedentary Work

- Death
- Obesity
- Diabetes
- Cardiovascular disease
- Decrease mood
- Decreased productivity
- Musculoskeletal pain and performance
Consequences of Work

- Sedentary behaviour
- Workplace design
- Poor posture
- Ergonomics
- Other factors

Incident

- In 2009-2010, 638,400 workers reported they had incurred a work-related injury.
- During a two week period in 2011, 12.9% of individuals indicated that they had time away from work because of an injury or illness.
- Most common reported injuries are sprains and strains of joints and adjacent musculature.

(Safe Work Australia, 2012; National PHE Strategy, 2010)

Work-Related Injuries in 2009-10 and How They Occurred

- Muscular stress
- Hitting or being hit or cut by an object
- Falls
- Exposure to mental stress
- Contact with chemical or other substance
- Other mechanism

(Safe Work Australia, 2012)

What Do We Know About Office-Related Pain?

- 44.3% of office workers reported neck pain over a 12 month period.
- Women have 2.9 the risk of developing neck pain.
- If you are over 50 years of age, there is more than twice the risk of having neck pain.
- People who have neck pain may be more likely to:
  - Hold their neck in a forward posture for a prolonged time
  - Sit for a prolonged time
  - Use repetitive actions at a high frequency
  - Have greater mental tiredness at the end of the workday
  - Have higher stress, or work longer hours.

(Coglia, Donneds, & Cambie, 2007)

Prevention

Can We Prevent Office-Related Pain and Symptoms?

Lack of available research to demonstrate prevention.

What has been investigated:

- Exercise
- Postural education
- Ergonomically designed devices
- Information on ergonomic workstation set up
- Implementation of workstation change
- Rest breaks.
**What Do We Know About Prevention?**

- Exercise decreased sick days and absenteeism.
- Being physically active correlates with decreased likelihood of having neck pain.
- Small effect of ergonomics training and workstation adjustments, new chair and rest breaks.
- Arm support with change of mouse reduced the number of new neck and shoulder disorders.
- Stretching improves flexibility and self-worth.

**Compliance With Office Exercise**

**PROS**
- Decrease amount of neck and back pain and work if we set it.
- Short sessions add up.
- Increase in work productivity.
- Better psychological wellbeing.

**CONS**
- 10 week program minimum.
- Supervision is needed.
- There is no one size fits all.
- So much other work to be done and can not afford the time to exercise.
- Reluctance to change.

**Management**

- Altered muscle activities.
- Neck & Back pain: Decrease in stabilizers, increase in movers.
- Abnormal muscle pattern to stabilise head on shoulder or lower back movements.

(Shipton et al., 2004; Hui et al., 2006)

**Effects of Pain in Structures of Back and Neck**

- Motor re-training exercise program.
- Increase in activation of stabiliser muscles & decreases in pain.

(Fatou et al., 2012)

**Exercise in the Office**

- Positive effect of strength & endurance exercises in the office for treatment neck & back pain.
- Reduced sick leave, use of analgesics & pain intensity.
- Conflicting evidence of effectiveness of stretching exercises in the office to relief neck pain.
- However, stretching exercises significantly relieve back pain.

(Sjögren et al., 2005; Vicenzino et al., 2005; Wilson et al., 2005)
Ergonomics & Posture Re-Training

- No significant effect of physical ergonomic interventions (e.g. technical devices, re-designing workplace)
- Not one size fits all
- Strong relationship between postural correction & activation of deep muscles
- Postural correction may indirectly help with neck & back pain.

Guidelines

- Every 30 minutes do SOMETHING
- Light activity
- Up to 2 minutes total
- In between breaks – MOVE
- Compliance improves if supervised or supported by the organization.

Exercises

Sitting: Postural Correction

Sitting: Back Rotations

Sitting: Chin Nod
Sitting: Neck Flexibility

Sitting: Ankle Circles

Standing: Squats

Standing: Calf Raises

Walking

Drink Water!

1.5 to 2 litres per day
PhysioTec Office Exercise Program

www.physiotec.org
Username: gwmcnui
Password: bfhx8vy

Take Home Message

- Stretching and exercise can decrease MS pain in the back and neck.
- Increasing activity levels can improve your glucose regulation, decrease cardiovascular risk, lift mood and productivity.
- Program minimum of 10 weeks.
- At least 2 min every 1/2 hour - you need to move.
- Any movement is better.

References


References


