



## Identification of Individual Risk Factors for Development of Work-Related Non-Specific Neck Pain among Office Workers

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Neck pain is a major concern among those working for prolonged hours using a visual display unit. The causes of neck pain among office workers are often misunderstood. Most of the complaints of pain are associated with an unknown cause of neck pain often referred to as non-specific neck pain [1].

Evidence suggests that non-specific neck pain in office workers is atraumatic and multifactorial associated with and influenced by an array of complex individual, physical and psychosocial factors.<sup>2</sup> Identification of the risk factors associated with non-specific neck pain development is an important concern to form new prevention strategies.

Current evidence on Individual risk factors for developing non-specific neck pain among office workers.

There are several individual, or person-level, risk factors associated with the development of non-specific neck pain in office workers. There is a need for awareness regarding the individual risk factors that may be predisposing to the non-specific neck pain in office workers, so that the individuals at risk are identified early during the investigation and appropriate treatment and preventive strategies can be implemented focusing on the identified risks without delaying the recovery.

### Body Mass Index (BMI)

Obesity is one of the common causes of joint degeneration, in individuals having a sedentary lifestyle and hence causes reduced mobility. There is believed to be a considerable deterioration in strength, flexibility and endurance of muscles and increased load-

ing of joints in obesity. It is one of the most discussed links between higher BMI and Pain. Overloading of muscles due to sustained posture at work, prolonged sitting hours in association with sedentary lifestyle contributes to development of non-specific neck pain among office workers [2]. Higher body mass is a result of high level of body fat which might influence pain in neck in many ways [3].

### Age

The association between older age and non-specific neck pain development among office workers has been widely supported in previously conducted studies. The musculoskeletal system weakens over time, resulting in decreased capacity, keeping this into consideration repetitive movements can cause more harm like use of mouse and keyboard and maintaining sustained posture. There is deterioration in vision with age leading to inappropriate postures attained during work. Older individuals might also become more vulnerable to workplace stress due to exaggerated emotions and reduced capacity for skill discretion [3]. It has been noted that an increased incidence of neck pain exists with age; however, this might differ according to each individual [4].

### Biological sex

There are contradicting findings in previously conducted studies about the association between female gender and development of non-specific neck pain. Some of the studies depict strong evidence for female gender to be more affected by non-specific neck pain at work while some other studies show weak or limited evidence. This conflict in findings may be because of limited female employee's inclusion in one study while more inclusions in some other studies depending on the workplace, therefore considering

biological sex as a risk factor for neck pain must not go unnoticed [3-5]. Further studies can be carried out on including a considerable participation of female gender to identify it as a potential risk at work.

### Personal habits

Smoking and alcohol consumption are often seen as a predisposing factor for neck pain. Personal habits are believed to be strongly associated with non-specific neck pain across occupations; however, show limited supporting evidence and does not clarify the relationship with non-specific neck pain among office workers [5,6].

### History of injury/pain

History of previous episode of neck pain was found to be strongly associated with non-specific neck pain among office works by the studies conducted previously. Injury to both neck and back in past is also considered to be one of the predisposing factors for the non-specific neck pain among office workers. The studies explain this to be a cluster pattern that describes pain in other regions of the body to be associated with neck. There are limited explanations for this pattern, and it may also vary in different individuals. It also directs towards the genetics, psychosocial and demographic factors [5,6].

### Conclusion

There are several individual risk factors associated with non-specific neck pain development among office workers. Identification of individual risk factors may help in increased accuracy of investigation, identification of the exact cause and reduced time for recovery. This may further help in identifying the population at risk and in forming suitable intervention strategies concerned with the recognized cause and may save a huge amount of time for clinicians and patients [7-9].

The individual risk factors can be identified during the initial stages through chief complaints, history taking and observations. Paying attention to individual demography can answer questions regarding what the potential risk factor might be if examiner has knowledge of possible risk factors to consider.

### Bibliography

1. Tsakitzidis G., *et al.* "Non-specific neck pain: diagnosis and treatment". *KCE Reports* (2009).
2. PP Mohanty, *et al.* "Risk factors responsible for Musculoskeletal Pain among Computer operators". *EC Orthopaedics* (2017): 15-31.
3. Jahre H., *et al.* "Risk factors for non-specific neck pain in young adults. A systematic review". *BMC Musculoskeletal Disorders* 21 (2020): 366.
4. Cote P., *et al.* "The burden and determinants of neck pain in workers: results of the Bone and Joint Decade 2000---2010 Task Force on Neck Pain and Its Associated Disorders". *Spine (Phila Pa 1976)* 33.4 (2008): S60-S74.
5. Paksaichol A., *et al.* "Office workers' risk factors for the development of non-specific neck pain: a systematic review of prospective cohort studies". *Occupational and Environmental Medicine* 69 (2012): 610-618.
6. McLean SM., *et al.* "Risk factors for the onset of non-specific neck pain: a syatematic review". *Journal of Epidemiology and Community Health* 64 (2010): 565-572.
7. Jun D., *et al.* "Physical risk factors for developing non-specific neck pain in office workers: a systematic review and meta-analysis". *International Archives of Occupational and Environmental Health* (2017).
8. Cagnie B., *et al.* "Individual and work-related risk factors for neck pain among office workers: a cross sectional study". *European Spine Journal* 16 (2007): 679-686.
9. Petit A., *et al.* "Risk factors for episodic neck pain in workers: a 5-year prospective study of a general working population". *International Archives of Occupational and Environmental Health* 91 (2018): 251-261.
10. Ye S., *et al.* "Risk factors of non-specific neck pain and low back pain in computers using office workers in China: A Cross-sectional study". *BMJ Open* 7 (2017): e014914.

11. Chen X, *et al.* "Modifiable individual, work-related factors associated with neck pain in 7440 office workers: a cross-sectional study". *Brazilian Journal of Physiotherapy* 22.4 (2018): 318-327.
12. Darivemula S., *et al.* "Work-related neck pain among Desk job workers of Tertiary care Hospitals in India". *Indian Journal of Community Medicine* (2015): 117.