

How to prevent musculoskeletal disorders caused by poor ergonomics?

- 1) Power putty/stress ball
- 2) Dental magnification loupes
- 3) Proper positioning- dental hygienists should maintain a neutral, balanced body position and then alter the patient's chair and dental equipment.
- 4) Proper instrument handling
- 5) Hand and arm stretching in between patients
- 6) Maintaining a natural lower back



<http://www.kampeerder.be/images/pho tolib/17507.jpg>

References

1. Gehrig, Jill S., Ginger Ann. Houseman, and Jill S. Gehrig. Fundamentals of Periodontal Instrumentation. Baltimore: Williams & Wilkins, 1996. Print.
2. Hayes, Melanie J., Derek R. Smith, and Jane A. Taylor. "Musculoskeletal Disorders in a 3 Year Longitudinal Cohort of Dental Hygiene Students." The Journal of Dental Hygiene 88.1 (2014): 36-41. Ebsco Host. Web. 6 Apr. 2015.
<<http://content.ebscohost.com.cit ytech.ezproxy.cuny.edu:2048/ContentServer.asp?T=P&P=AN&K=2012498259&S=R&D=ccm&EbscoContent=dGJyMMvi7ESeprQ4y%2BbwOLCmr02eqLBSsay4SL eWxWXS&ContentCustomer=d>.
3. Hayes MJ, Taylor JA Smith DR. Int J Dent Hygiene 10, 2012: 265-269. Predictors of work-related musculoskeletal disorders among dental hygienists.
4. Khan and Yee Chew BMC Musculoskeletal Disorders 2013, 14:118
<http://www.biomedcentral.com/1471-2474/12/118>



Effects of Ergonomics in Dental Hygiene



<https://ergoguy.files.wordpress.com/2010/02/lowerbackpain1.jpg?w=244&h=300>



Paige Zambito
Bella Yakubova
Gabiella Weiman

What is Ergonomics?

An applied science concerned with the “fit” between people and their technological tools and environments. It is a discipline focused on making products and tasks comfortable and efficient for the user.



What is the effect of ergonomics?

Improper ergonomic practice results in many musculoskeletal disorders in different areas of the body. In a dental hygiene study done over a 3 year period from 2008-2010, students from Australia reported common areas affected from unprofessional ergonomic practice:

- Neck 67%
- Shoulders 47.73%
- Upper Back 40.46%
- Wrists/Hands 39.7%
- Lower Back 63.7%



http://www.gentledental-pa.com/files/dca-blog_dental-hygienist-and-cleaning-kid.jpg

Workplace characteristics affecting ergonomics/risk factors

- Amount of clinical hours
- Awkward or sustained postures
- Clinician/patient positioning
- Gender: women have a higher prevalence
- Forceful exertion or strain on fingers or wrists
- Exposure to vibration in hands from powered instruments
- Exposure to heat/cold



<http://www.sheervision.com/SheerVision%20Loupes%20Help%20Ergonomic%20Posture%20440B.jpg>

Who is affected by improper ergonomic practice?

Dental hygiene students, dental hygienists, dentists and other dental professionals.

Musculoskeletal Disorders Common in Dental Healthcare Providers:

- Thoracic outlet syndrome
- Rotator cuff tendinitis
- Pronator syndrome
- Extensor wad strain
- Carpal tunnel syndrome
- Ulnar nerve entrapment
- Tenosynovitis
- Tendinitis



<http://www.smeadvisor.com/wp-content/uploads/2011/04/Corporate-wellness-April2011.jpg>