# Ansell





## ERGONOMICALLY-DESIGNED GLOVE SOLUTIONS TO MINIMIZE WORK-RELATED INJURIES

Hand fatigue is a serious issue, work-related hand/wrist disorders develop from the physical activities performed by healthcare professionals. Risk factors that may contribute to muscle fatigue and the development of musculoskeletal disorders (MSDs) of the hand include:

- · exerting excessive force;
- excessive repetition of movements;
- awkward postures or unsupported positions;
- static postures or positions that a worker must hold for long periods of time;
- · compression which can concentrate force on small areas of the body;
- inadequate recovery time due to overtime, lack of breaks, and failure to vary tasks;
- and excessive vibration, usually from vibrating tools/drills which can decrease blood flow, damage nerves, and contribute to muscle fatigue.<sup>1</sup>

Additionally, when a glove is worn that restricts hand movement, the healthcare workers must exert more muscle effort to perform procedures, thereby increasing the risk of strain which can lead to hand fatigue or injury such as the carpal tunnel syndrome.<sup>2</sup> Between 23% and 40% of dentists and close to 75% of dental hygienists experience hand and wrist pain.<sup>3</sup>

The combined cost of lost wages and production, medical expenses, and worker's compensation results in a sizeable financial toll on individuals and employers.

#### THE IMPORTANCE OF ERGONOMICS

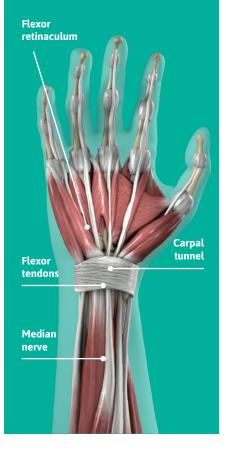
Ergonomics is the practice of preventing work-related musculoskeletal disorders (WRMSDs). Successful implementation of ergonomic practices increases productivity, reduces illnesses and injuries, and boosts satisfaction among dental professionals.<sup>4</sup> In contrast, unsuccessful implementation of ergonomic practices can lead to WRMSDs.

### For more information, visit www.ansell.com/dental

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# ABOUT CARPAL TUNNEL SYNDROME

- The carpal tunnel is a narrow passageway surrounded by bones and ligaments protecting the median nerve and flexor tendons that bend the fingers and thumb.
- Carpal tunnel syndrome occurs when the tunnel becomes narrowed or when tissues surrounding the flexor tendons swell, putting pressure on the median nerve.



### **ANSELL'S SOLUTION**

Ansell's ERGOFORM<sup>™</sup> Design Technology reduces muscle effort to support musculoskeletal health, reduce injuries, and improve worker performance.



Ergonomic fit ensures superior comfort and maximum range of motion

Our design reduces stress on joints, ligaments, and tendons

Ansell does this by measuring the toll of occupational activities and applying cutting-edge technologies to produce disposable gloves with improved dexterity, comfort, and fit when compared with competitors' gloves.

Ansell's innovative **ERGOFORM™ Ergonomic Design Technology has helped deliver improved range of motion** and enhanced comfort in protective gloves that are used daily by most workers. Ansell factors in the ergonomics of the hand by accommodating its natural state and allowing for better freedom of movement to greatly reduce the stress placed on workers' hands. This prevents the occurrence of MSDs such as carpal tunnel syndrome or tendinitis in the long term.

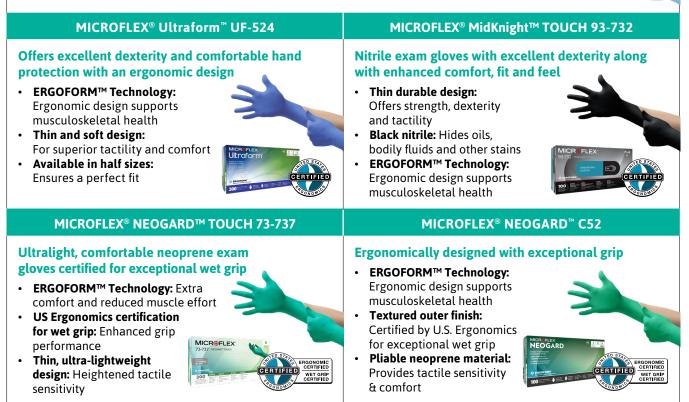
#### **GLOVE RECOMMENDATION**

#### MICROFLEX® XCEED® XC-310

#### Ergonomically designed to reduce hand fatigue

- ERGOFORM™ Technology: Ergonomic design supports musculoskeletal health
- Thin-mil design: Provides enhanced tactile sensitivity
- Low AQL: 0.65 AQL for allowable pinholes means exceptional barrier integrity





References: 1. Khanagar S, Rajanna V, Naik S, Jathanna VR, Kini PV, Reddy S. An Insight to Ergonomics in Dental Practice. J Pre Clin Dent Res 2014;1(2): 35-40. 2. Haghigh B, Khosropanah H, Vahidnia F, Esmailzadeh S, Emami Z. Association of Dental Practice as a Risk Factor in the Development of Carpal Tummel Syndrome. J Dental Shiraz Univ Med Scien 2013;14(1):37-40. 3. https://dentalacademyofce.com/courses/1878/pdf/handandwristpain.pdf.pdf 4. Gupta A, Bhat M, Bansal N, Gupta G. Ergonomists in Dentistry. Int J Clin Pediatr Dent 2014;1(1):30.

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