

## Posturedontics

**Vinej Somaraj\***

*Associate Professor, Department of Public Health Dentistry, Rajas Dental College and Hospital, Tirunelveli, Tamil Nadu, India*

**\*Corresponding Author:** Vinej Somaraj, Associate Professor, Department of Public Health Dentistry, Rajas Dental College and Hospital, Tirunelveli, Tamil Nadu, India.

**Received:** March 30, 2022; **Published:** May 27, 2022

Musculoskeletal disorders (MSD's) is the leading contributor to several injuries. It is mainly due to poor posture, improper work habits, poor lighting, genetics, stress, poor postural muscle strength, improper design of the dental chair and magnification tools, repeated activities like heavy lifting, bending, twisting. The manifestations of MSD's are extreme tiredness in the shoulder and neck, weak grip, cramping of hands, numbness in fingers and hands, clumsiness and dropping of objects, hypersensitivity in hands and fingers.

All together MSD's can be ascribed to several risk factors and they can be reduced by the right ergonomics. The right ergonomic process provides the well-being and safety of patients. Ergonomics can be defined as "an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely". Unsuccessful application, on the other hand, can lead to work-related musculoskeletal disorders (MSD's). It's one of the main reasons for early retirement among dentists.

Musculoskeletal disorders come in a variety of forms like back problems, hand and wrist problems. Lower back pains are so common and last longer. Healing is so difficult with a decrease in regeneration due to ageing. While upper back pain occurs less in comparison to the other and is mainly from postural and scapular muscles. Hand and wrist problems are due to constant flexion and extension motions of the wrist and fingers & repetitive movements, working for a too long period without allowing rest or alternation of hand, forceful work and extended use of vibratory instruments.

**The course of action involved in MSD's:** When standing or sitting in a posture for a prolonged time leads to reduced blood flow, pain, tissue damage, reduction in the oxygen supply, muscle imbalance, ischemia, spinal disk degeneration and accumulation of lactic acid and other metabolites.

**The types of musculoskeletal disorders:** Neck and shoulder disorders, hand and wrist disorders, back disorders.

**The forestalling methods to reduce MSD's:** Erect posture, saddle style and tilted seats, the instrument design should prevent negative health effects, usage of proper fit gloves, the help of dental assistants, correct temperature.

**Signs of MSD's:** Decreased range of motion, grip strength, Loss of normal sensation, normal movement, and coordination.

**Symptoms of MSD's:** Excessive fatigue in the shoulders and neck, Tingling, burning or other pain in arms, Weak grip, cramping of hands, Numbness in fingers and hands, Clumsiness and dropping of objects, Hypersensitivity in hands and fingers.

There are many risk factors for MSD's, if occurring at high levels and in combination like:

- **Awkward postures:** More stress is placed when handling objects with the back bent or twisted, and are used to obtain an optimal view of teeth.

- **Forceful exertions:** Tasks that require forceful exertions place higher loads on the muscles, tendons, ligaments and joints lead to MSD's.
- **Repetitive motions:** If motions are repeated frequently and for prolonged periods, fatigue and muscle-tendon strain can accumulate.
- **Duration:** The longer the period of continuous work the longer the recovery or rest time required.

Some interventions like proper adjustment at the workstation and early diagnosis and treatment of MSD, maintaining proper posture while working can reduce the occurrence of MSD. Supine positioning of the patient in the chair is usually the most effective way to help to maintain a neutral posture. The dental equipment and instruments should be centred on the dental assistant, helping in providing effective delivery systems. Lightning and magnification adjustment to reduce movements unnecessarily.

Dental professionals are prone to unique muscle imbalances and require special exercise and ergonomic interventions to maintain optimal health during their careers.

### Conflict of Interest

None.

### Source of Funding

None.

**Volume 21 Issue 6 June 2022**

**© All rights reserved by Vinej Somaraj.**