

# Does surgical stalwartness insinuate physical fitness as well? An understanding of “ergonomics”



### INTRODUCTION

Oral and maxillofacial Surgery is a rapidly emerging and thought-provoking field, which builds a connecting bridge between Dentistry and Medical Science. It not only confines its expandability within the oral cavity or 32 teeth but also covers many extensive as well unique clinical scenarios involving the head and neck region. The unique services provided by oral and maxillofacial surgeons range from simple tooth extraction to dentoalveolar surgeries, management of facial fractures, cleft lip and palate repairs, oral cancer management with reconstruction using local flaps and microvascular free tissue transfers, salivary gland diseases, temporomandibular joint (TMJ) disorders, skeletal deformities of the face, and many more. Although most surgeons enhance the quality of a patient's life by performing these life-saving interventions, very few take out their valuable time to look in the mirror optimizing their own physical fitness.

### IMPORTANCE OF THE ROLE OF ERGONOMICS

“Ergonomics” is the science of corresponding working environments and human capabilities and it plays a vital role in eliminating the risk of developing musculoskeletal disorders. The actual concept of this is to facilitate the individual performing their professional work and other activities carefully as well as competently. Hence, it emphasizes the need for recognizing adverse circumstances that may lead to potential discomforts. Subsequently, to curtail or eradicate those circumstances, physical exercises in the forms of Yoga, free hand workouts, or going to a gymnasium play a very vital role in improving the ergonomics of a professional individual. Mostly, oral and maxillofacial surgeons struggle with continuous awkward positions either in dental chairs or in operating theaters. At the end of the day, sometimes the cervical and lower back pain also becomes irritating while performing daily regular activities. Therefore, the incorporation of fitness ergonomics is very important, especially in a field where most of the time the body stays in an uncomfortable position.

### ARE WE AT RISK?

The prevalence of occupation-induced musculoskeletal disorders has increased in the current scenario. They are predominantly encountered in occupations requiring repetitive, forceful, or continuous exertions of the extremities or carrying heavy objects and prolonged awkward postures. Oral and maxillofacial surgeons because of the complex and skilled professional working style and in addition to the uncomfortable postures, are one of the most susceptible professionals for developing occupation-induced musculoskeletal disorders. These disorders comprise a wide range of inflammatory and progressive degenerative diseases affecting primarily the muscles, tendons, and nerves of the body. Once affected by this disorder, it invariably results in pain, particularly in the neck, lower back, shoulders, elbows, wrists, and hands as well as gradual functional impairment later on.

Due to the work–life imbalance as well as hectic schedule, oral and maxillofacial surgeons are very much prone to physical fatigue and subsequent obesity. Lack of physical exercise is one of the governing factors, making them susceptible to developing musculoskeletal disorders. In the present scenario, long time standing in the operating room is emphasized more than a short session of physical activity, yoga, or meditation. Therefore, maxillofacial surgeons in their later life mostly suffer from some kind of muscular disorder. Apart from that, excessive workload makes a person physically as well as mentally drained, which ultimately is reflected in his/her professional life. The risk of developing varicose veins also increases following a long time standing in the dental clinic or operating room. Abnormal diet, overweight, deleterious habits, inadequate sleep, and emotional exhaustion are just the cherries on the cake of deficient physical activities.

### PREVENTION IS BETTER THAN CURE

The popular proverb “An Apple a Day, keeps the Doctor Away” can be explained in the view of the importance of being physically fit while engaged in professional life. The

untiring efforts to strive for occupational growth can be a cause for an unhealthy life. Improper sleep, constant stress, and emergency/casualty duty in the life of a maxillofacial surgeon are just a few of the multiple additive factors of being physically unfit. Due to the constant engagement of the uncontrollable mind, one forgets how a few hours of physical and mental workouts can really elevate one's energy to work more efficiently. Even Lord Krishna emphatically calls for the maintenance of physical health through daily activities and exercises in the Bhagavad Gita. He clearly stated that one cannot even maintain his body without physical exercise.

### TAKE AWAY LESSON

As mentioned earlier, it is also stated in many ancient Indian scriptures that being physically active is the ultimate secret to living a normal, healthy life. Hence, effective physical exercise applied to the population-promoted lifestyle changes may contribute to reducing the incidence of musculoskeletal disorders. Bernaards *et al.* (2011)<sup>[1]</sup> found that the changes in lifestyle both at work as well as in free time as behavioral changes, adjustments in the workplace, short work breaks frequently and exercise in their free time promoted improvement of pain in office workers. According to a study by Rodriguez *et al.* (2014)<sup>[2]</sup>, moderate strength exercise, three times a week for at least 20 min has been found to reduce musculoskeletal pain in shoulders, wrists, cervical, thoracic, and lumbar spine. The results of a recent study by Niederstrasser (2022)<sup>[3]</sup> indicated that mild, moderate, and high physical activity was associated with a lower likelihood of suffering from musculoskeletal pain compared to being sedentary.

Hence, it can be easily concluded from the evidence-based literature that at least 1 h of daily physical workout can save a maxillofacial surgeon from this nightmare of musculoskeletal disorders. In the majority, due to excessive workload, maxillofacial surgeons often deviate towards leading an unhealthy lifestyle. Most of the time, the above-mentioned

deleterious habits adversely affect one's professional life as well. Hence, being physically fit should be a daily mantra for the success of an oral and maxillofacial surgeon.

### MADAN MISHRA

Department of Oral and Maxillofacial Surgery, Sardar Patel PG Institute of Dental and Medical Sciences, Lucknow, UP, India

**Address for correspondence:** Prof. Madan Mishra, Department of Oral and Maxillofacial Surgery, Sardar Patel PG Institute of Dental and Medical Sciences, Lucknow, UP, India.  
E-mail: mm.15mds@gmail.com

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