

Work Life Wellness



Dental Hygiene Practice: Passion or Pain?

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In my opinion, dental hygiene is one of the most rewarding professions. Our primary focus to provide the highest level of client-centred care involves the determination and pledge to learn and grow in our practice continually. This commitment is the driving force that has made the dental hygiene profession grow and prosper in this ever-evolving field. As rewarding as our careers are, poor work habits, bad postures, and the resulting physical strain due to compromises that we make have detrimental long-term effects on our overall physiological health.

One of the most significant compromises that we make in our work involves our bodies. It is a fact that up to 96% of all dental hygienists have reported pain symptoms in at least one body part while practising.¹ A five-year prospective study revealed that 95% of physical ailments reported by dental hygienists were consistent with musculoskeletal disorders (MSDs); approximately 57% of dental hygienists were actually diagnosed with a musculoskeletal disorder.² The pain often begins in dental or dental hygiene school.^{3,4} More than 70% of dental students also complain of musculoskeletal pain by their third year.³ Similarly, in another study of Swedish dental practitioners, the employees with the highest proportion of disorders were dental hygienists, with 100% reporting MSDs.⁵

When I speak to colleagues and other dental professionals about reasons for their pain and discomfort, the most common answer is “I have the worst posture.” Many are aware how severely out of alignment they place themselves while working, and amazingly tolerate this discomfort day in, day out, for many years. The first thing we need to do to improve this situation is to look at what changes in our clinical routines will reduce this strain and ongoing damage to our bodies. A well-balanced neutral physical position with minimal loads on the body is the best way to work! But in order to attain that goal, you need to consider your clinical position before you start working.



PRACTITIONER POSITION

With regard to correcting your posture, the most important tools to consider investing in are ergonomically measured magnification loupes and proper ergonomic seating. If you don't wear loupes, you will be enticed to bend in closer, compromising your posture in order to see clearly. You need to see well in order to do the best job possible, but without compromising posture. That's where loupes come in. Loupes bring the mouth to you without your having to bend over. Most people think of loupes only as a visual aid to see better and more detail! I don't agree. In my opinion, the most important benefit of an ergonomically measured pair of loupes is how they will force you to maintain proper head and neck position, as well as proper upright working posture. In this respect, loupes can drastically minimize strain and physical loads to the neck, upper back, and lower back. But, this is only a benefit if the loupes are made ergonomically, based on your individual physical makeup. Everyone has different ear heights, nose ridge shapes and heights, neck lengths, arm lengths, and facial characteristics

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Dental Hygiene Practice: Passion or Pain cont'd

that have an impact on how a pair of loupes will sit on the face. One person can wear a pair of loupes that keeps them in the right ergonomic position, while another individual wearing the same loupes will not be in an ergonomic position, which can result in long term MSD issues. The use of poorly selected or fitted loupes may, in fact, increase the risk of MSDs. Choosing the right pair of loupes is paramount to the tool's success.⁶ It is important to choose a supplier who has excellent knowledge of dental ergonomics and who has the ability to build these measurements into your custom loupes.

In 2008, a clinical study by Branson, Black, and Simmer-Beck found that dental hygienists will hold their head/neck position 90% of the time in a forward angle ranging from 17° to 39°, while the other 10% hold their neck at angles far greater than 40°.⁷ Ergonomically designed loupes keep your head, neck, and back in the right position, and the magnification brings the treatment area closer to allow you to see the detail.

When you are fitted for loupes, there are some key measurements that will ensure accuracy and clarity of image, but most important is an ergonomic assessment and review to ensure that your posture will be neutral and allow you to benefit fully from your investment. The measurements needed are as follows:

1. Interpupillary distance
2. Working distance
3. Ear height
4. Neck angle
5. Angle of declination
6. Frame size and fit

Interpupillary distance is important, as faces are not symmetrical and our eyes may converge differently at different working distances. Image clarity is definitely improved when loupes are aligned properly, eliminating any risk of eyestrain, double, blurred and distorted vision resulting in possible headaches.⁸

Your working distance should also NEVER be measured in a range as this can be limiting. We all have a specific "sweet spot" that allows the ideal movement from one clock position to the next, while maintaining an optimal ergonomic physical position where all is in clear focus. You should be able to maintain a comfortable balance of 10° moving forward and backwards in any clock positions in relation to your client position and still have the full oral cavity in focus.

Last but not least, your ear height, neck angle, and frame choice will impact the resulting ergonomic angle of the loupes. Frame choice and fitting are important, as some declinations are not possible with certain combinations of interpupillary distances and frame choices.

Changes in our vision also occur as we age. We develop a lack of accommodation and a need for improved resolution at some point in our early 40s. The understanding of our visual needs can improve our ability to see while working. It is always recommended to have your eyes examined annually to ensure that your visual acuity is maintained. If there is a need for any vision corrections, make sure that the loupes you will invest in can accommodate prescription needs properly. Avoid the use of prescription inserts, as



these add more lens surfaces, increasing light reflection and refraction, which will fatigue the eye more quickly. The best way to incorporate a prescription is directly in the frame lens and in the telescope. This will truly improve your ability to see and work effectively with the least strain on the eyes.

ERGONOMIC SEATING

Contrary to what dental hygienists are taught, sitting with your legs parallel to the floor is not recommended. In order to reduce strain on the lower back, the hip should be higher than the knee with the upper leg angled roughly at 10° to 15° above parallel. In order to sit comfortably at this new higher position, your chair should be able to tilt slightly forward approximately 5° to 6° to minimize pressure under the thighs. Feet should be flat on the floor and legs should not be too spread apart. The upper legs are spread horizontally between 30° and maximally 45°.¹ Be wary of chairs that displace the hip laterally further than 45°. Investing in a proper stool is worth every penny as it is crucial to relieving major loads on the lower body.

In summary, my challenge to you is to take a moment and reflect on how you practice. Taking care of your body and your visual needs will not only allow you to work with greater ease and comfort, but will also ensure that you have a long and prosperous life, both professionally and personally. Remember: practice for passion and not with pain!

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