

## Dental Work Shouldn't be a Pain in the Neck!

Dentists often find themselves in the head down & forward lean posture shown in this photo. The head forward position increases muscle activity and load on the neck. Forward leaning flattens the lower back which can bulge the discs. Assuming this posture all day combined with a lack of forearm support and sustained gripping often finds dentists in pain before their work day ends!

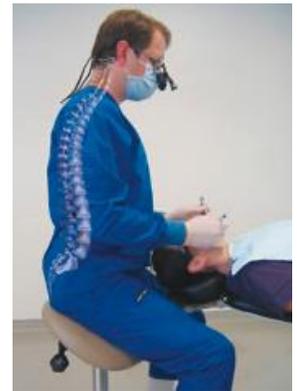
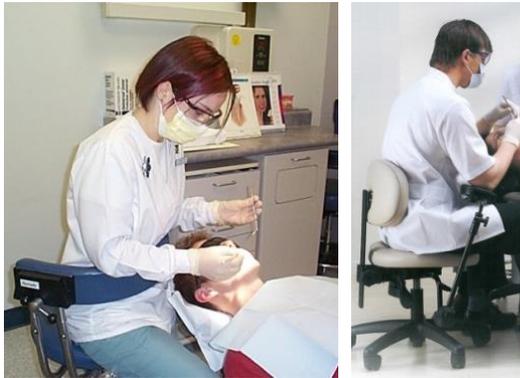


### What we know:

- ⇒ The incidence of neck and shoulder pain among dental professionals is high: greater than 45% report spinal pain at work that impacts functional mobility at work & home
- ⇒ The average lost time for musculoskeletal (MSK) disorders is 3x higher for dental professionals than any other health or social service sector (129 vs. 44 days/year)
- ⇒ There is a higher incidence of MSKs in female vs male dental professionals
- ⇒ Regardless of the task, dentists assume flexed neck postures > 30 degrees for 82% of the day. This neck flexion is associated with reduced muscle endurance & a more rapid onset of fatigue
- ⇒ Dental work is associated with high levels of static postures (muscle contraction) with minimal postural variation. Lactic acid accumulation in muscles results in muscle tightening and pain.
- ⇒ A head down, flexed posture combined with lack of arm support promotes muscle fatigue and disc bulging in the neck and lower back. Increased disc pressure can result in spinal pain and/or referred pain to upper & lower limbs.

### How to Prevent Pain:

1. Make a conscious effort to assume a **neutral posture (ears in line with shoulders & hips)** often. Using a stool that drops your knees lower than your hips as shown helps to maintain your spinal curve & neutral posture
2. **Move in close** your patient to reduce reach
3. **Use available arm support** to reduce holding through the neck & shoulders



4. **Change your posture** or position as you **START** to feel fatigue
5. **Take micro breaks** often & intermittently throughout the workday to stretch tired muscles. Stretching refreshes fatigued muscles by providing fresh oxygenated blood & flushing out lactic acid

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## Suggested Stretches

Stretch only to a comfortable range and hold it for ~5-10 seconds. It shouldn't hurt. Be sure not to force or bounce. Breathe deeply as this can help increase the degree of stretch. Repeat to each side.

### Neck Side Bend



### Chest/Upper Back



### Forearm extensors & flexors



## Postural Correction Exercises

Do these intermittently throughout the day to “re-set” your posture. These help to reduce disc pressure in the neck and lower back. Do 2-3 reps each time.

### Chin Tuck



### Back Extension



## Resisted Exercises

Recent studies point to the value of **resisted exercises** as a means of increasing muscle relaxation and reducing neck & shoulder pain. A 2004 study by E. Rosendahl found that performing lateral lifts of the shoulder using elastic tubing for up to 2 minutes or until fatigue, resulted in increased relaxation of neck muscles (validated by EMG), a 40% reduction in neck and shoulder pain and a slight increase in strength.

If you consistently end your workday in pain or are looking to prevent musculoskeletal discomfort, consider incorporating some of these healthy work habits into your day!

