

Practice Dentistry Pain-Free

**Evidence-Based
Strategies to
Prevent Pain
and Extend
Your Career**

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Practice Dentistry Pain-Free: Evidence-Based Strategies to Prevent
Pain and Extend Your Career

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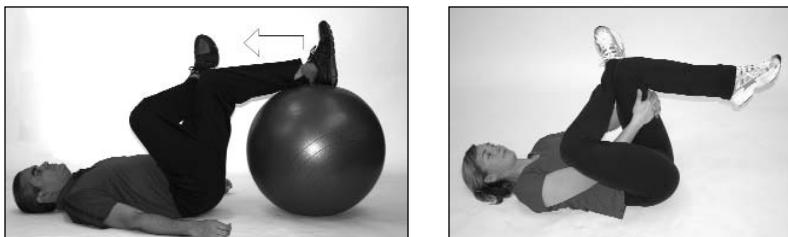
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Fig. 12: Piriformis Stretch

Lying on your back, place your left heel on a ball and position your right ankle across it (left). Gently roll the ball toward you to increase the stretch. A stretch should be felt in the mid buttock on the right. Hold 30 seconds. Repeat on other side. This can be performed without the ball in the same position by pulling the left knee to your chest while having the right leg crossed over (right).



Golf and Dental Professionals

Golf and dentists. We all know they go together like apple pie and Chevrolet. However, the sport that most dentists flock to after work, on weekends or at conferences may make them more susceptible to pain. Among both amateur golfers and dentists, more than half report that the low back is the area most frequently injured.²⁵ Consider the posture frequently assumed by right-handed dentists and golfers, flexed forward, leaning to the right and rotated to the left. Is it any wonder that both populations experience similar pain syndromes? (Fig. 13)

Addressing two risk factors that contribute to low-back pain in both dentists and golfers may help golfing dental professionals more comfortably continue the sport they love.²⁶ These risk factors are flexed spinal posture and poor spinal rotation away from the patient, or toward the backswing side. The following exercises and references are for right-handed golfers. Left-handers will need to reverse the directions.

We have seen that *flexed spinal posture* is a common position assumed by many dentists and often difficult to avoid due to varying patient size, poor patient tolerance to reclining, location of the occlusal surface, etc. Flexing the spine forward over the patient is a risk factor for muscle strains, trigger points and disc degeneration or herniation that can result in low-back pain.¹¹

Fig. 13: Dental professionals who golf may be worsening microtrauma that starts in the operatory and leads to low-back pain

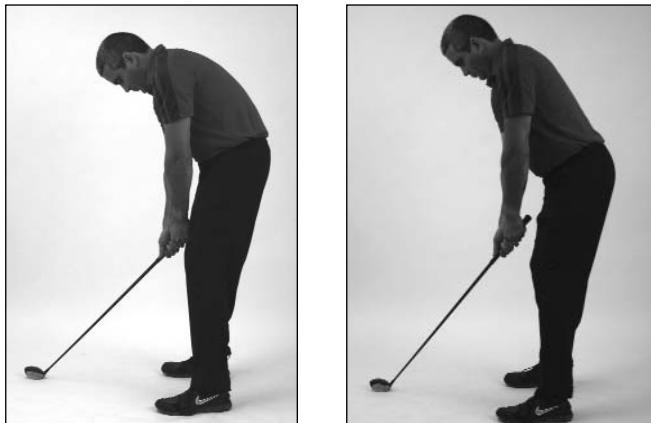


Golfers with low-back pain tend to flex their spines forward when addressing the ball,²⁷ which tends to limit the amount of spinal rotation. (Fig. 14, left) This may be due to tight hamstrings, habit or poor abdominal strength. Golfers with low-back pain also had significantly less endurance of the deepest abdominal stabilizing muscles, the transversus abdominis, when compared with nonsymptomatic golfers.²⁸ Poor strength in this muscle will predispose both dentists and golfers to a slouched working posture.

To avoid this damaging posture, dentists and golfers should make it a habit to actively pull the navel to the spine (which activates the transverse abdominal muscle) and pivot forward from the hips, not the waist, whenever leaning forward. (Fig. 14, right)

Engaging the transverse abdominal muscles in this manner helps stabilize and protect the lumbar spine and facilitates proper pivoting at the hips both in the operatory and on the green.^{25,29} Not only should the deep abdominal muscles be the target of a strengthening program for dentists and golfers to decrease low-back pain, but also the other trunk stabilizers: quadratus lumborum, lumbar multifidus, erector spinae and oblique muscles. The Swiss exercise ball is one excellent

Fig. 14: Flexing the spine forward is a risk factor for low back pain (left). Stabilizing with the transverse abdominals and pivoting forward at the hips (right) are important techniques to prevent back pain



way to target these groups; however, the golfing dentist should also progress to standing exercises that are more functional to the sport.²⁵

The second risk factor, *poor spinal rotation*, is also shared by golfers and dentists alike. A certain degree of rotation is difficult for most dentists to avoid in the operatory, and when it occurs, it is usually in one direction. One study showed that right-handed dentists leaned forward to the right and rotated to the left (Fig. 13) for two-thirds of their working hours.³⁰ Dentists who repeatedly postured this way had the highest incidence of low-back pain and also tend to have less spinal rotation to the right (away from the patient). As we saw in Chapter 3, repeatedly twisting the trunk in one direction (i.e., toward a delivery system or a patient) can also lead to the development of muscle imbalances that cause low-back pain.³¹

Likewise, the body mechanics of right-handed golfers somewhat simulates dentists in the operatory: leaning forward and rotating to the left at the end of their swing. Golfers with low-back pain also tend to have less flexibility with trunk rotation,²⁷ which can cause compensatory movements in the spine, hips or shoulders.²⁵

The golfing dentist should incorporate specific trunk rotation exercises (Fig. 15), especially stretches toward the backswing side (or

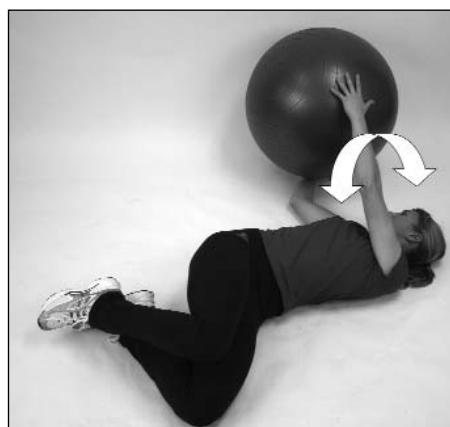
“away from the patient”), as this is the direction that is most problematic for both populations.²⁵ Also of importance is avoiding a muscle imbalance of the trunk rotators (oblique abdominals) by targeting the oblique abdominal muscles in a strengthening program.

Anecdotally, I have encountered several dentists who felt they had to quit golf because of their pain. Quitting the sport you love may be unnecessary if these additional exercises and preventive strategies are addressed.

Embarking upon an exercise program requires prudence and discretion, considering dentists’ predisposition to certain muscle imbalances. Selecting improper exercises can lead to imbalance, ischemia, nerve impingement and other pain syndromes.

However, when compared with positioning aids, education, ergonomic interventions, and risk factor modification, *proper exercise* has been shown to be the most effective preventive intervention.² Developing balanced musculoskeletal health with a well-designed exercise program can help dentists prevent work-related pain, avoid injuries, extend their careers and improve their quality of life.

Fig. 15: Dental professionals who golf should ensure good trunk flexibility toward their backswing side (or away from the patient)



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Practice Dentistry Pain-Free

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- Perform chairside stretches in your operatory to prevent microtrauma
- Identify which exercises benefit dental professionals

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