



Guest Contributor
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Fig. 1

Back and neck issues for dental professionals are the number one of all disability claims. Other routine diagnoses of the dental profession include: wrist issues, numbness in the arms, difficulty grasping tools, low back and mid back pain and sciatica. Why?

Contributing factors to this staggering statistic are found not only the demands of repeated flexion of the spine and neck, working in tight places (holding intricate equipment), but also in poor body mechanics and posture both in and outside of the work environment.

In dealing with the aches and pains, the symptoms are frequently treated rather than the cause of the problem. Anti-inflammatories and steroid injections cover the symptoms but not the cause. Increasing muscle strength is beneficial, but still does not address if the muscles are being used correctly. How the muscles are used (correctly or incorrectly) can often be the origin of the problem. Adding to the problem are misdiagnoses that tend to focus on an isolated body part rather than a section of the body that functions as a unit. For example, diagnosing an issue with the wrist, rather than the shoulder girdle; diagnosing a neck problem, rather than the mid back stabilizers; or diagnosing the low back, rather than the entire pelvic girdle.

We are meant to move not stay in static positions. When we do move, we rarely think about how we move, as a result, we often move incorrectly and out of natural alignment. The way you sit, stand, bend, walk, breathe, sleep, work on the computer AND even swing that golf club, they all affect different types of stress on your body, particularly if you have muscle and joint dysfunction.

Rotational muscles tend to dominate the extensors, flexors, abductors and adductors resulting in breakdown of ligaments, tendons, discs and joints. Take this illustration: if your shoulders roll forward and your head is in front of your body for a prolonged amount of time, (whether treating patients at work, on computer or golf course) two sides of your muscles are lengthening and the opposite two are being shortened. This can cause a painful muscle imbalance. In order to move correctly, and to avoid pain, your muscles and bones are meant to operate symmetrically. Pain occurs when muscles and bones operate asymmetrically, often over a prolonged period of time. This is why it is critical that dentists thoroughly understand their movements and body mechanics while treating patients.

It is important that you are able to assess what limitations and dysfunctions you have in your body and then gain the skills to learn how to fix them. Under-

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standing which part is “broken” then you are able to solve the puzzle, rather than relying on treatment that merely masks the underlying issue(s).

HOW DO I FIX MYSELF?

Posture Check: Are you parts lined up? If not, joints will rotate at shoulder and hips causing too much stress on two sides of each joint. Head over shoulders, over rib cage, over pelvis, over knees over ankles. When sitting: one leg 90 degrees anchored into ground and chair.

Breathing: Chest or diaphragm? Breathe from the diaphragm to get the stress out of the chest and neck muscles and use the abdominal muscles to support the torso.

Muscle Isolation: Are you able to contract each muscle independently? Work from the large muscles from the center out rather than the small ones away from your body.

Mid Back function: Do your chest muscles overpower your mid back stabilizers? Pull down and in with your mid back stabilizers to anchor the arm action.

Bending: Neck and back flexion? Do the above, and bend from the hips moving your whole trunk as a unit to move forward.

Change Positions: Do you use your chair to help you? Brace some part of your body into the chair to anchor and change positions frequently.

TIPS ON HOW TO OPERATE WITHIN YOUR WORK ENVIRONMENT

Maintaining proper posture while providing treatment to a patient. *See Figure 1, previous page.* Bend from hips as if you have a rod from head to tailbone, brace leg into chair, pull mid back muscles down, move arm from shoulder blade and keep head over body. To get closer, move your entire torso.

Maintaining proper alignment when holding dental instruments. *See Figure 2, next column.* Keep wrists straight; pull mid back muscles down, move from mid back and upper arm. Contract mid back and upper arm to hold your instruments, hold lightly with hands.



Fig.2

Maintaining proper alignment while performing regularly tasks. *See Figure 3, below.* Practice the hip bending techniques and using your legs, in even the simplest of activities. Stagger your feet, sit your rear end back, and reach forward from your shoulder blades.



Fig.3

Additional Pointers: Make sure you stay active, or look to become active to keep up the endurance and range of motion needed to tolerate the demands of your profession. Focus on increasing both your strength and flexibility. Stretch actively, which means you are contracting the muscle opposite the one you intend to stretch. Keep in mind, if a muscle is too tight on one side, the one on the opposite needs to be strengthened in order for the tight muscle to lengthen.

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Active stretches you can do in the office between patients



QUAD/ HIP FLEXOR STRETCH

Grab the heel of your shoe, allow your knee to drop to the ground, contract your glutes and hamstring insertion and hold for 2-10 sec.



OUTER HIP STRETCH

Cross your ankle across your other thigh, bend support leg, sit your rear and back, tilt trunk forward, push down on thigh and thigh pushes against hand. Keep back straight.



HAMSTRING/CALF STRETCH

Place one leg on a chair or desk, pull your foot back contracting shin, sit your rear end back as trunk tilts forward from the hips, contact quad and shin.

How you can begin to protect yourself from pain, or lessen your current pain:

- Line up all of your parts (keep your body in a natural alignment)
- Breathe from your diaphragm
- Connect to the center of your body
- Ground yourself somewhere before you move
- Isolate the CORRECT muscles to move your appendages
- Bend from the hips moving your trunk as a unit to move torso closer to patient
- Stretching actively

The spine will break down with prolonged...well, just about anything. Keep moving. Restore function

to all of the joints by connecting the brain to the correct muscles to do your job and live your life. Create new habits and develop a whole new lifestyle. Implementing these lifestyle changes will improve the quality of your dental practice and your life!

NOTE: Special thanks to Dr. Ralph Wilson for allowing us to photograph him and his office.

Terry Roach, M.Ed., is a Registered Kinesiotherapist and President of Body Stabilization Training, Inc. that specializes and back & neck rehabilitation. Terry held an all-day workshop for dental professionals at ASDOH in August of this year. Find Terry at www.BodyStabilization.com

