

Fitness 101 for Dental Professionals: Secrets for Comfort and Career Longevity

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RISK FACTORS Contributing to Occupational Pain in Dentistry

MICROTRAUMA resulting from Prolonged, Static Postures:

- 1.
- 2.
- 3.
- 4.

EXERCISE

- Strengthening (power vs. endurance)
- Stretching
- Aerobic

POWER VS. ENDURANCE TRAINING

Endurance training

- Good for targeting the postural muscles.
- Essential for preventing injuries and for maintaining optimal postures in prolonged, static postures.
- Focuses on ____ repetitions and ____ weight.

Power training

- Tends to target the more superficial mover muscles which are designed for power.
- Training focuses more on ____ repetitions and ____ weight.

TARGET MUSCLES FOR MUSCULAR ENDURANCE TRAINING:

- Postural stabilization muscles
Transverse & oblique abdominals, quadratus lumborum, erector spinae and multifidus
- Scapular stabilizing musculature
Middle & lower trapezius, serratus anterior
- Specific rotator cuff muscles
Infraspinatus, subscapularis, teres minor

In general, focus on muscles that _____. Avoid muscles that _____.

EXERCISE GUIDELINES

- *Never perform strengthening exercises with painful muscles.*
- Strengthening should be done __ times weekly. (Stretches can be performed daily)
- Exercises should be done regularly
- Always start out mildly and increase gradually.
- Exercise should not cause pain. Mild discomfort that lingers after you have stopped exercising is normal, but if you experience pain, stop the exercise.
- *Always check with your doctor before initiating any new exercise program.*
- AVOID generic exercise routines that can worsen dental professionals' muscle imbalances. Certain exercises in Pilates, P90X and especially CrossFit must be modified or eliminated altogether.

CHAIRSIDE STRETCHING

How to Stretch Safely

- Move into and out of a stretch *slowly*.
- Assume the starting position, this is where the stretch *begins*.
- Breathe in and exhale slowly as you increase the stretch to a point of mild tension or discomfort.
- Hold stretch for 2-4 breathing cycles.
- Stretches should be repeated if possible.
- Do NOT stretch in a painful range. Discontinue stretching if pain increases following stretching.

AEROBIC EXERCISE

- Rhythmic movement delivers oxygen and nutrients to muscles
- Improves circulation
- Improves healing & recovery time for muscles
- Controls weight & reduces stress

Considerations for selecting an aerobic activity

- Choose at least 1 activity that involves the _____ muscles.
- Symmetrical movement.
- Recommended exercises:_____.
- Perform 4-5X week for minimum of 30 minutes.
- Know your target heart rate.

TARGET HEART RATE (THR)

Google _____ *Calculator*' for an easy calculation of your personal target heart rate that includes your resting heart rate. Resting heart rate is best checked in the morning before getting out of bed.

Always check with your doctor before beginning any exercise program

POSTURAL AWARENESS EXERCISE

ACUTE PAIN

- Pain at rest – usually severe “7-8” range
- Swelling or heat in the area
- Sudden onset, usually lasts 3-5 days
- Restricted movement
- Early treatment **EXTREMELY** important during this phase

“SCRIPT”

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RED FLAG SYMPTOMS

When pain may NOT be musculoskeletal in origin. Call your doctor immediately!

- If your symptoms increase with rest and during the night.
- If you cannot reproduce the pain with body movement or positioning.
- If the symptoms cover a large, non-specific area and are hard to pin-point.
- If symptoms migrate from one joint to another.
- If you have a history of serious illness, especially cancer, or if you experience sudden weight loss or fever.
- Numbness and/or muscle weakness that does not subside.
- Dizziness, nausea, blurred vision, severe headache, loss of balance, or fever.

CHRONIC PAIN

- Most common type among dental professionals
- Moderate pain “3-6” on pain scale
- Pain usually localized, and felt “on & off”
- Often the result of years of awkward, repetitive posturing
- Takes longer to recover from, requires change of habits

TREATMENT FOR CHRONIC PAIN

- 1.
- 2.
- 3.
- 4.
- 5.

TRIGGER POINT SELF-THERAPY

Use a Backnobber tool, tennis ball or smaller hard rubber ball against a wall:

- Find the trigger point
- Apply deep pressure for 5 seconds, then massage for 5 seconds
- Alternate between deep pressure and massage for *1 minute* per trigger point
- Aim at a pain level of about 4-5 on a scale of 1-10
- Perform a 30-60 second stretch to the affected area.
- Repeat 3-5 times/day if possible
- Too much pressure can irritate and worsen trigger point pain

SLEEPING POSTURES

DRIVING POSTURES

STRESS MANAGEMENT

- Breathing Strategies
- Progressive relaxation
- Visualization
- Autogenics

REFERENCES

We are keeping the handout as 'green' as possible! Bethany will gladly send you her lecture references upon request. Please e-mail her at bvalachi@posturedontics.com for the lecture references.

RESOURCES

Books, DVDs and Articles

Dr. Valachi's books, DVDs and articles www.posturedontics.com

- *Smart Moves for Dental Professionals on the Ball* Home Exercise DVD Kit
- *Smart Moves for Dental Professionals in the Operatory: Chairside Stretching* DVD Kit

Low Back Disorders: Evidence-based prevention & rehabilitation - S. McGill www.amazon.com

Painfree: A revolutionary method for stopping chronic pain – Pete Egoscue www.amazon.com

Sports Injury Prevention & Rehabilitation - Shamus & Shamus www.amazon.com

Trigger Point Therapy Workbook – Clair Davies www.posturedontics.com

Understand your Backache – Rene Cailliet www.amazon.com

CDs

Journey into Deep Relaxation – Dorothy Blumenfeld www.amazon.com

Delta Sleep System – Jeffrey Thompson www.amazon.com

Other Wellness Products

Buckwheat hull pillow - www.amazon.com

MediBeads moist heat wraps - www.amazon.com

Posture S'port body garment – www.posturedontics.com

Backnobber Trigger Point Tool - www.posturedontics.com

BQE Backsaver - Lumbar support for office chairs/cars – www.bqe-usa.com

LECTURE SUPPLEMENT

**YES! I would like to receive Dr. Valachi's Fitness 101 lecture supplement
& monthly e-zine!**

Enter this address into your internet browser: www.tinyurl.com/n8ssvkl

(OR...e-mail your full name with FITNESS in the subject line to: info@posturedontics.com)

About the Speaker



Dr. Bethany Valachi, PT, DPT, MS, CEAS is a doctor of physical therapy, certified ergonomic assessment specialist and author of the book, *“Practice Dentistry Pain-Free”*. She is CEO of Posturedontics®, a company that provides research-based dental ergonomic education and is clinical instructor of ergonomics at OHSU School of Dentistry in Portland, Oregon. Recognized internationally as an expert in dental ergonomics, she has delivered over 700 lectures worldwide and provided expertise on dental ergonomics to faculty and students at numerous dental universities. Dr. Valachi has published over 50 articles in peer-reviewed dental journals and has developed patient positioning and exercise DVDs specifically for dental professionals. She lives in Portland, Oregon with her husband, Dr. Keith Valachi, who operates a private dental practice. She offers free newsletters, articles and product reviews on her website at www.posturedontics.com

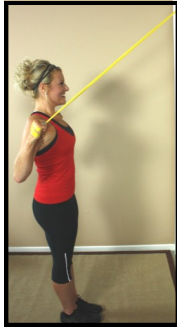


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Excerpts from the DVD, "Smart Moves for Dental Professionals *On the Ball*"
All 3 workouts (24 exercises) available at www.posturedontics.com



Downward Squeeze
 Anchor band at top of door. Roll shoulders back and squeeze shoulder blades downward and together. Pause briefly and slowly return. Repeat 10-20 times.



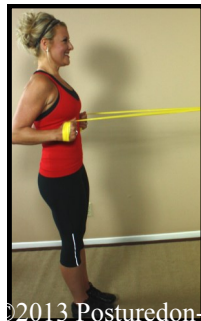
Lower Abdominals
 Lie with both knees bent. Lift one leg until the hip is at 90°, then slowly straighten, lightly touch the floor, hold, then return the leg to 90° position. Repeat with the same leg 5-10 times. Do not let your back arch off the floor.



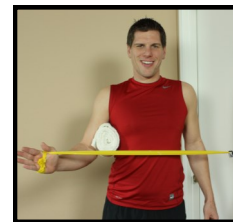
Pointer Dog
 Pull navel to spine and hold this contraction throughout the exercise. Make sure back is flat and hips are level. Slowly lift the right arm, thumb pointing up, hold 4-5 counts, then lower it. Repeat for each arm and leg, performing 5 lifts on each.



Extensor Lifts
 Position your feet against a wall. Kneel in front of the ball, so the ball is under your pelvis. Cross your arms across your chest or behind your head and slowly raise the head, neck and torso until your back is straight. Slowly lower and repeat 10-20 times.



Rowing
 Position the door anchor at waist level. Slowly pull both hands back towards your waist, keeping thumbs up and forearms parallel to the floor. Pause briefly, and return to start position. Repeat 10-20 times.



External Rotation
 Slowly rotate the arm outward, then return. Keep elbow pressed firmly against your side throughout the exercise. Perform 10-20 repetitions with each arm.

Excerpts from the DVD, "Chairside Stretching' & Trigger Point Therapy"
All 20 Chairside Stretches available at www.posturedontics.com



NECK & SHOULDER COMBO
 Gently pull arm across front of body with opposite arm. Hold 2-4 breath cycles.



THE UNTWISTER
 Legs in tripod position, resting elbow on knee. Stretch opposite arm overhead and look toward ceiling. Hold 2-4 breath cycles.



PECTORALIS STRETCH
 Clasp fingers behind back. Breathe in and press shoulders backward as exhaling. Hold 2-4 breath cycles.



SCALENE STRETCH
 Anchor hand behind back or chair. Slowly bring opposite ear toward shoulder. Hold 2-4 breath cycles.



TRAPEZIUS STRETCH
 Anchor hand behind back or chair. Slowly bring opposite ear toward armpit. Hold 2-4 breath cycles.



SHOULDER CIRCLES
 Slowly exhale, roll shoulders forward, up and backward returning to the relaxed starting position. Repeat 5 times.

