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Corrective Exercise for Older Clients with Degenerative Joint Disease

June 20, 2017

Course Type: Recorded 1 Hour Webinar

Course Level: All Levels

Course Objectives

1. Discuss the degenerative process and development of osteoarthritis of the spine and hips in older adults.
2. Describe a corrective exercise strategy for improving posture and movement in the older client with osteoarthritis of the spine and hips.
3. Explain a strategy for incorporating the principles of corrective exercise – alignment, breathing, and control – into the fundamental movement patterns required for accomplishing the older client's functional goals

Course Description

Baby boomers and individuals 65 years of age and older are currently the largest growing segments of the population. As increasing numbers of these individuals advance and move into their senior years, a significant proportion of them will experience chronic low back tightness and dysfunction and be told they have degenerative joint disease or osteoarthritis.

When not addressed the effects of degenerative joint disease can limit what the older adult can and will do and can lead to further challenges with balance, ADLs and more.

By understanding and applying the principles of the Integrative Movement System™ into a corrective and progressive exercise program, the fitness professional can help their baby boomer and senior clients improve alignment and control of the trunk and spine.

About the Presenter

Dr. Evan Osar, CSCS, PES, CPT, CMT

Author, Speaker, Co-Founder of The Institute for Integrative Health and Fitness Education

Evan Osar is the developer of the Integrative Movement Specialist™ certification designed specifically to aid the fitness professional establish themselves as an invaluable part of their client's health care team. In addition to his chiropractic degree, Dr. Osar has earned national certifications through the American Council on Exercise (ACE), National Academy of Sports Medicine (NASM), National Strength and Conditioning Association (NSCA), and The Soma Institute – National School for Clinical Massage Therapy. He is the co-founder of The Institute for Integrative Health and Fitness Education, an education company with the mission of helping fitness and allied health professionals recognize their role as a part of the solution to the health care crisis.

Course Outline

OSTEOARTHRITIS: TRAINING THE OLDER CLIENT

3 GOALS

1. Define osteoarthritis and the process.
2. Discuss corrective exercise.
3. Demonstrate how to execute a successful program.

THE AGING POPULATION:

- Between 1990-2020 individuals 50 yoa > will increase 74%
- 10,000 individuals turn >65 yoa every single day
- Individuals >80 yoa will double in the next few years

STAGGERING STATISTICS

- Over 50% of individuals 70 yoa+ have arthritis
 - Source: Supplement on Aging and Second Supplement on Aging
- Low back pain is the leading cause of disability
 - Source: American Chiropractic Association (ACA)
- 7.2 million individuals living with hip and knee replacements
 - Source: The Journal of Bone and Joint Surgery

DO WE HAVE A HEALTH CARE CRISIS?

- How do you 'be' the solution your clients need?
- You must be **EXTRAORDINARY!!!**

THE MOST IMPORTANT THING I CAN SHARE WITH YOU

- I OWED \$150,000.00
- I WENT BACK TO PERSONAL TRAINING
- THIS IS WHO I WANTED TO WORK WITH
- I WASN'T PREPARED TO WORK WITH THESE INDIVIDUALS
- YOU CAN'T TRAIN YOUR OLDER CLIENTS LIKE THESE INDIVIDUALS
- OUR CHALLENGE

OSTEOARTHRITIS

- ***Osteoarthritis*** (osteo – bone; arthritis – inflammation)
- AKA: DJD – is not necessarily an acute inflammatory process
- It is degenerative process
- Can occur at any joint in the body
- ***Rheumatoid arthritis*** – autoimmune
- Characteristics:
 - Decreased joint space and bone spurs
 - Limited joint range of motion
 - May or may not be pain
- What is the most common cause?
 - HABITS

THE DEGENERATIVE PROCESS – THE SPINE

- Non optimal posture and movement- Soft Tissue Changes- Osseous Changes
- Influenced by: injuries, traumas including surgeries, and chronic postural and/or movement habits
- Leads to: muscle imbalances, degenerative disc disease – bulging or herniation – etc.
- Results in: bone spurs, narrowing of disc spaces and spinal canal, nerve compression, etc.
- Caused by: injuries, traumas including surgeries, and chronic postural and/or movement habits
- Leads to: muscle imbalances, tightness, impingement, labral tear, etc.
- Results in: bone spurs, narrowing of joint space, tightness, pain, etc.

OSTEOARTHRITIS

- What can be done?
 - Medications
 - Side effects
 - Physical therapy or chiropractic care
 - Positive outcomes
 - Surgery: Discectomy, laminectomy, fusion
 - Largely fail
- Why do so many approaches fail?
 - Because they're not dealing with the underlying or driving issues!

WHAT IS THE BEST APPROACH?

- The most important thing you can do is to help your client develop more optimal posture and movement habits.

- **The Corrective Exercise Approach™**

RECAP

1. Osteoarthritis is aka degenerative joint disease (DJD).
2. DJD is a cumulative condition and may or may not be progressive.
3. Once medically cleared, you are in the best position to work with individuals that have DJD.

THE I.M.S. CORRECTIVE EXERCISE APPROACH™

- Three Primary Goals
 1. Identify most pertinent factor driving non-optimal postural or movement
 2. **Improve function of the TPC**
 - **A,B,C's**
 3. Integrate corrective exercise principles into the fundamental movement patterns
- The best strategy for changing posture and movement habits in older adults
- 3 components:
 - Assessment
 - Corrective Exercise Strategy
 - Integration

POSTURAL ASSESSMENT

- OPTIMAL ALIGNMENT
 - Head
 - Thorax
 - Pelvis
 - Stacked over base of support (feet)
- 3 Common Postures
 - Hyperkyphosis (left)
 - Sway back (middle)
 - Flat back (right)
 - What do they all have in common?

BREATHING

- Provides:
 1. Oxygenation
 2. Stabilization
 3. Mobilization
- *Most important component for developing and maintaining:
 - spinal stability
 - hip mobility
 - balance

BREATHING ASSESSMENT

- Three-dimensional breathing
 - Ability to align and access entire thoracopelvic cylinder

COMMON FINDINGS

- Inspiration (top)
- Expiration (bottom)

SQUAT

- Evaluation of:
 - trunk and spine stability
 - hip mobility
 - ability to use gluteal complex

COMMON FINDINGS

- Early and significant posterior pelvic tilt

THE CORRECTIVE EXERCISE APPROACH™

- Step 1: Assess
- Step 2: Corrective Exercise Strategy
- Step 3: Integration & education
 - **Most important for changing chronic habits**
- Release- Activate- Integrate

- Release
 - Erector spinae
 - Latissimus dorsi
 - Glutes and hip rotators
 - Hamstrings and quadriceps
- Corrective Exercise Strategy
 - Release
 - Myofascial restrictions –foam roller/manual work
- Activate
 - Breathing muscles
 - Deep core muscles
 - Deep glute muscles
- ACTIVATION – THE PRINCIPLES OF THE ***INTEGRATIVE MOVEMENT SYSTEM™***
 - A – ALIGNMENT
 - The Thoracopelvic Cylinder (TPC)
 - B – BREATHING
 - Benefits: stabilization and decompression
 - C - CONTROL
 - Using the right muscles at the right time and in the right manner
- Alignment and Breathing
 - Align TPC with feet resting on wall
 - Begin three-dimensional breathing
 - Make it effortless as possible
- Alignment, Breathing, and Control
 - Add leg lift
 - Must be no change in alignment or breathing with leg motion
- Alignment, Breathing, and Control
 - Add DB Pullover
 - Must be no change in alignment or breathing with arm motion

SUPPORTED WALL PLANK

- Alignment, Breathing, and Control
- Cue to lengthen back of head towards ceiling and gently pull door apart between hands
- 3-D Breathing

SUPPORTED SQUAT

- Alignment, Breathing, and Control
- Focus on TPC alignment and hip mechanics
- Breathe out during descent and in to stand back up

THE CORRECTIVE EXERCISE APPROACH™

- Functional goals
 - Squatting
 - Lunging
 - Bending
 - Rotating
 - Pushing/pulling
 - Balance/Gait/Carrying

INTEGRATION

- Focus on TPC alignment & control with limb dissociation

Angie (78) – DJD and Stenosis

- Before and after occurred in 45 minutes

Paul (68) – DJD and MS

- Before and after occurred in 20 minutes

3 KEY TAKE AWAYS

1. Primary cause of DJD
2. Principles of the *Integrative Movement System™*

3. Proper progressions

REFERENCES

- Mayo Clinic. First nationwide prevalence study of hip and knee arthroplasty shows 7.2 million Americans living with implants. Retrieved from: <http://www.mayoclinic.org/medical-professionals/clinical-updates/orthopedic-surgery/study-hip-knee-arthroplasty-shows-7-2-million-americans-living-with-implants>
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- Osar, E. (2015). *The Integrative Corrective Exercise Approach*. Video retrieved from Fitness Revolution: <http://integrativecorrectiveexercisespecialist.com/>
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Question and Answer Segment