DONNA FARHI
Teacher to the teachers.

Mastering Simplicity

Theme: Gait, Mobility, and Motivation
Physical Focus: Spinal Extension and rotation, hip mobility in all planes of movement.
Special Equipment: In addition to regular equipment, a "used" tennis ball or a therapy ball of a similar size and density, a plastic bag.
Poetry/Extracts/Resources: listed as footnotes and at end of plan.
Music: none

Introduction

• The theme of today's class is gait, mobility and motivation. Lately, I've been watching how people walk. And one of the questions I have for you, is when you observe someone walk, what attributes in their gait do you associate with youthfulness? And what attributes do you associate with biological aging (as opposed to chronological aging)? Solicit responses from your class. Examples:

Youthfulness	**Biological Aging**
Fluidity	Rigidity
Bounce to the gait	Flatness to the gait
Speed of the gait	Slowness of the gait
Length of stride	Shortness of the stride
Consistency of the steps	Inconsistent steps
Swing of the arms	Little or no swing of the arms
Rotation of the trunk	Little or no rotation of the trunk
Pelvis swings from neutral	Pelvis fixed in an anterior tilt over the femur

• A 2021 meta-analysis involving eleven studies and over 14 thousand people shows that stride length "predicts adverse clinical events" in older adults.[1] A short stride length (less than 0.64 m or 25 inches) accurately predicted clinical events, over and above other gait measures[2]. One of the most common MAE (Major Adverse Event) is falling. There is even compelling evidence that reduced gait speed in generally healthy adults in their 40s "already reflects worse physical and cognitive function and an accelerated rate of aging compared with adults with normal gait speed[3]

• In today's class I'd like to explore how we can improve our gait through releasing tension in the feet, mobilizing our thoracic spine, and improving the range of movement (ROM) in the hip.

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[1] *Stride Length Predicts Adverse Clinical Events in Older Adults: A Systemic Review and Meta-Analysis,* Ibadete Bytyci and Michael Y Henein, Journal of Clinical Medicine, 2021 June; 10 (12):2670
[2] Adjusted to be proportional to height.
[3] *Gait Speed Reveals Clues to Lifelong Health* by Stephanie Studenski, MD, MPH, JAMA Netw Open, 2019: 2 (10):e1913112. Doi10.1001/jamanetworkopen.2019.13112

Experiential

Centering

1. Create a stride measurement by fixing two pieces of colored tape 25 inches apart. Now go for a stroll around the room, and every few circuits of the room, place your heel on the first piece of tape and see where you land on your next foot fall, without exaggerating your gait, or "trying" to change your gait in anyway. Place a marker for your second foot fall.

2. Stand in Mountain Pose (***Tadasana***). Feel how your weight transfers over your feet. Front, back, inside, and the outside of the foot. Place your softened tennis ball or therapy ball under the right foot and gently roll the ball back and forth from toe to heel, and then stand on the ball under your metatarsals with your heel released to the floor. If the ball is too hard you can use a rolled-up sock. Focus on keeping your weight centered on your foot, without rolling inwards or outwards. Repeat on the second foot.

Warming up

3. Cat Pose (***Marjaryasana***), into foot flex and lunge alternating legs.

4. Downward Facing Dog (***Adho Mukha Svanasana***) alternating bending one knee, active lift of arch as the heel descends.

5. Spinal Extension over a roll in Constructive Rest Position (CRP) with the arms in a cactus position (upper arm level with the shoulder/forearms perpendicular to the upper arm).
    A. Roll placed across the mid-thoracic (nipple line of the chest). Rotate the head left and right for 1 minute, then "Cicada Rubs It's Wings" for 1 minute by gently rubbing the left knee against the right shin/ right knee against the left shin.
    B. Roll placed across the base of the ribcage with focus on diaphragmatic breathing.
    C. Roll placed under the pelvis.

6. Spinal Extension with the arms and legs extended.
    A. Roll placed across the mid-thoracic (nipple line of the chest). Rotate the head left and right for 1 minute, then "Cicada Rubs It's Wings" for 1 minute by gently rubbing the left knee against the right shin/ right knee against the left shin.
    B. Roll placed across the base of the ribcage
    C. Roll placed under the pelvis

Active

7. Supine Big Toe Pose (***Supta Padangusthasana***) variations in CRP.
    - Leg swings. Take visual measure of leg angle to trunk
    - Active Drawbridge X3. Take visual measure of leg angle to trunk
    - Flexion with belt around the ball of the foot (Overhead)
    - Abduction with belt arch of foot, pelvis centered

- Internal Rotation with belt around the heel of foot, opposite leg also internally rotated.
- External Rotation with belt around the ball of the opposite foot (or opposite foot supported on the wall with the leg positioned at a right angle)
- Extension in Half Bow lying on the side (***Ardha Dhanurasana***)
- Half Bow with Isometric Presses X 3
- Knee Slides with plastic bag under the knee. Lower leg rotations.
- Reverse back through Half Bow lying on the side to . . .
- Thunderbolt Pose (***Vajrasana***), knee drawn into chest with the other leg actively extended.
- Practice second side.

Relaxation

8. Supported Child's Pose (***Salamba Balasana)*** with one bolster, or with bolster at an angle supported with a yoga block.
9. Corpse Pose (***Savasana***)
10. Transition to walking and testing stride length

Transition to Everyday Life

As you move through your day or evening, observe how you walk. Notice how your gait feels in the morning and how it may change as you wear different shoes and walk on different surfaces.

Resources

1. *Aging and Gait Function: Examination of Multiple Factors that Influence Gait Variability* by Hope E. Gamwell, Seaer O. Wait, Jackson T. Royster, Brody L. Ritch, Sarah C. Powell, and Jared W. Skinner, Gerontology and Geriatric Medicine, 2022 Jan-Dec; 8:23337214221080304
2. YogaUOnline has a relatively short course called *Gait, Posture, and Longevity: Movement Mastery for Optimal Health* by Dr. Emily Splichal. https://yogauonline.com/lessons/overview-416/