

BOSU® Mobility & Stability for the Active Aging

Purpose: Help your active aging clients: build functional strength, face their fear of falling with gait training, learn various ways to get up & down, move more efficiently through the entire kinetic chain, & ultimately make all of their daily movements easier to do! **Population:** Appropriate for this class should be “those who are current club members with class experience & appropriate biological & functional age to perform most of the abilities outlined here with effort, either on the floor or using the BBT.”

1. INTRODUCTION: “SENESCENCE” AS A HETEROGENEOUS GROUP for AGE

- A. Chronological Age: years
- B. Functional Age: ability to perform ADLs
- C. Biological Age: physical functions. Takeaway: “People who exercise regularly with task-dependent exercises (“games”) have lower biological ages than people of the same chronological age who do not exercise.”
- D. Psychological Age: cognitive & self-efficacy age. Takeaways: “Aerobic & strength exercise improve cognitive functioning of this population when combined. Fitness classes can improve self-efficacy when designed using partners.”

2. **THEME, FORMAT, & SCOPE of WORKSHOP:** To give to trainers & instructors of this population some Stability & Mobility “GAMES” (KINESTHETIC CHALLENGES & “drills”) for improved Functionality, Reaction, Self-Efficacy, Fall Prevention, Coordination, Range of Motion, & overall Self-Efficacy. Fitness professionals are aware that differences in age, ability, & agility are common to this market, & new instructors to this market may have to relinquish a traditional desire to maintain constant class conformity. Mirroring clocks takes practice.

3. UNIQUE USES OF THE BOSU BALANCE TRAINER FOR THIS MARKET:

- A. Utilize the dome’s circles.
- B. Train the Quadratus Lumborum stabilizer in both standing & floor postures
- C. Use the soft surfaces to make lunges accessible & comfortable
- D. Play games like “Hot & Cold,” “Touch,” “Sleeping Dog,” & “Bubblewrap”
- E. Use the BBT’s resistance & cushion to train the anterior tibialis
- F. Help us face the fear of falling with functional drills we call “games”
- G. Give this population at least 3 new ways to get up & down
- H. Let this population now exercise in a comfortable, head-supported supine position

4. PHYSICAL AWARENESS of COMMON ISSUES:

- A. Musculoskeletal: osteoarthritis (inflammation of joints due to wear & tear), osteoporosis (bone loss), gout, loss of muscle mass, fractures. Takeaway: longer warm-up time & joint manipulation up to 25% of class time, strengthen anterior tibialis muscles towards fall-prevention for active dorsiflexion (Rogers).
- B. Neurologic: dementia (Alzheimer or other types), Parkinson's disease, strokes, poor vision, hearing & balance impairment. Takeaway: fall prevention strategies & reaction exers.
- C. Visual: macular degeneration, glaucoma, cataracts, diabetes & hypertension, related eye diseases. Takeaway: visual drills, cueing where to look
- D. Cardiovascular: disease, heart attacks, congestive heart failure, irregular heart rhythm (atrial fibrillation), high blood pressure (hypertension), atherosclerosis (hardening & narrowing of blood vessels) & peripheral vascular disease or peripheral artery disease (poor blood flow as a result of narrow blood vessels)
- E. Hormonal: diabetes, menopause, thyroid issues, high blood chol., slower overall metabolism.

5. GENERAL CONSIDERATIONS

- A. Longer Systemic warmup, especially for distal joints, & specific task preparation

BOSU® STABILITY & MOBILITY FOR ACTIVE AGING

- B. Encourage slower spinal rotation, especially cervical
- C. Less Unsupported Cervical Flexion/Extension in Supine/Prone as in Dead Bug/Superman
- D. < 2 Consecutive Minutes on Knees
- E. Less Independent Time on BBT without Stepping Down
- F. Lower Music Volume < 70 decibels (Apps like “Decibel Ultra”)
- G. Provide ample time for changing body positions; this is part of the workout experience
- H. Emphasize Pelvic Floor Connection & Balance throughout
- I. Hip Replacements: generally avoid “ballet turnout stance”

6. OUR SURFACES: THE FLOOR & THE BOSU BALANCE TRAINER

- A. Contact Points (C.P.)
- B. Visual & Vestibular Affect (V.A.)
- C. Movement
- D. External Stimulus:

7. BOSU® POSITIONS & EQUIPMENT: BOSU BALANCE TRAINER & inflation, SOFT-TOUCH BALL “STICKY” MAT, OPTIONAL CHAIR/FOAM ROLLER/BAR

8. BOSU® Yearbook Class Picture & MVP!

BOSU® STABILITY & MOBILITY FOR ACTIVE AGING

ALL MOVEMENTS OCCUR WITH BBT DOME SIDE UP

R=RIGHT, L=LEFT C.P.= CONTACT POINTS V.A.= VISUAL AFFECT BBT=BOSU BALANCE TRAINER

STB=SOFT TOUCH BALL W/=WITH PROG.=PROGRESSION REG.=REGRESSION

[___]=MOVEMENTS GENERALLY WITHHELD DURING CONVENTION WORKSHOPS


WHERE

MOVEMENTS & GAMES

NOTES

WHERE	MOVEMENTS & GAMES	NOTES
	MEMORY GAME, ESTABLISHING “HOME”	PHONE #, GROCERIES, NAMES OF STUDENTS...
“HOME” BEHIND BOSU	1. SLOW SAGITTAL HEEL & TOE TAPS W/ARMS 2. SLOW FRONTAL HEEL & TOE TAPS 3. MARCHING TO DIFFERENT TIMES (12, 3, 6, 9) 4. HIP ROCKS & MARCHING “OUT AND IN” 5. “ROCKING”: SAGITTAL REACHES W/ARMS, ANTERIOR TOES, & POSTERIOR HEEL LIFTING. REPEAT OTHER SIDE (<i>Jags, Woolley</i>) 6. MARCHING W/VISUAL TRACKING ARMS (V.A.)	IN THIS ORDER, PREPARING FOR BOSU; PROG.: MANIPULATE ORDER & TEMPO REG.: KEEP LEGS WIDE TRACK WITH FINGERS
ACCLIMATION FOR THE BOSU	RHYTHMIC WARMUP DYNAMIC FLEXIBILITY: 7. FINGER/WRIST/ANKLE + SHOULDER WARMUPS UNILATERAL & BILATERAL “BACKSTROKES” 8. BACK RHYTHMIC SAGITTAL MOVEMENTS 9. BACK RHYTHMIC FRONTAL MOVEMENTS 10. BACK RHYTHMIC TRANSVERSE MOVEMENTS	AWARENESS OF INDIVIDUAL SHOULDER & SPINE ISSUES
WALKING MOBILITY	--“GAIT GAME:” WALK AROUND 2 BBTS & RETURN-- CUE: “YOU SHOULD LOOK BOTH DOWN & IN FRONT OF YOU” + MEMORY GAME	CUE: “THE 2 ND BALANCE TRAINER YOU WALK AROUND IS ALWAYS YOUR OWN”
BEHIND BBT AT “HOME”	ALTERNATING BETWEEN R & L FOR EACH: 1. KNEE RAISES/LIFTS; REG.: HEEL/TOE LIFTS 2. 1 FOOT ON BBT FOR ANKLE/KNEE CIRCLES	USING ARMS AS NEEDED TEACH PELVIC FLOOR, TVA, & BREATHING

	<ol style="list-style-type: none"> 3. "SLEEPING DOG" GAME: TOE/HEEL TAPS & TOUCHES ALL OVER BBT DOME (C.P.) 4. "BUBBLE WRAP" TOE/FOOT PUSHES ALL OVER & INTO BBT DOME, AT "HOME" (Bernier) 5. "ROCKING": STAGGERED STANCE SAGITTAL REACHES W/ARMS & POSTERIOR HEEL LIFTING & LOWERING, W/ ANTERIOR FOOT ON BBT, 8-16 XS PER SIDE 	<p>CONNECTIONS</p> <p>ARMS OUT TO SIDE AS AN "AIRPLANE"</p> <p>ENCOURAGE USING ARMS AS NECESSARY</p>
WALKING MOBILITY	---"GAIT" GAME: WALK AROUND 2 BBTS REACTING TO CUES, TRYING TO RAISE A HEEL---	CUE: "FREEZE" "WALK" MEMORY GAME
BEHIND BBT AT "HOME"	<ol style="list-style-type: none"> 1. "TOUCH" REACTION GAME. POSSIBLE CUES: "R/L" "TOE/HEEL," "# OF RING," "RIM," "TOP" 2. SQUATTING TO TOUCH THE TOP 3. HINGING TO TOUCH THE TOP 	<p>GAME: CALL OUT R OR L & A CUE</p> <p>2 OR ONE HAND TOUCHES, AS ABLE</p>
STAGGERED STANCE	<ol style="list-style-type: none"> 1. R FOOT ON BBT, "HOT & COLD" REACTION GAME ("HOT" = KEEP FRONT FOOT LIFTED) 2. [REPEAT W/ OTHER LEG] 	REG.: JUST RAISE FRONT FOOT
BEHIND BBT AT "HOME"	<ol style="list-style-type: none"> 1. HEEL PRESSES ONTO BBT NEAR RIM AT 6:0 2. ALTERNATING "CATCH YOURSELF" GAME IN SAGITTAL PLANE ANYWHERE ON BBT 	TRY TO LEAN INTO BBT
BEHIND, IN FRONT, & WALKING AROUND BBT	<ol style="list-style-type: none"> 1. BEHIND BBT ON FLOOR: "CLOCK" GAME ONTO FLOOR. PROG.: ONTO BBT 2. IN FRONT OF BBT: "CLOCK" GAME 3. IN FRONT OF BBT: R ANTERIOR TIBIALIS STRENGTHENING BEHIND TOP & RIM AT LEFT HEEL, HANDS W/ OR W/O ASSISTANCE 4. AROUND BBT ON FLOOR: "BUBBLE WRAP" GAME: WALKING AROUND 360° IN ONE DIRECTION, PUSHING HEELS INTO BBT TO STRENGTHEN ANTERIOR TIBIALIS 5. [REPEAT #3 & #4 OTHER LEG] 	<p>"CLOCK" GAME BEHIND BBT: CALL OUT R OR L & TIME 3-4-5-6-7-8-9 O'CLOCK</p> <p>"CLOCK" GAME IN FRONT OF BBT: CALL OUT "R OR L," & TIME 9-10-11-12-1-2-3 O'CLOCK. REG.: JUST STEP BACK TO "12" & RETURN</p>
<u>AT L SIDE OF BBT</u>	<ol style="list-style-type: none"> 1. L FOOT ON FLOOR & R ON BBT: PUSHING INTO BBT, DEPRESS R HIP & ELEVATE L HIP 2. R LEG SIDE STEPS ON & OFF "SQUATS" 3. L FOOT ON FLOOR & R ON BBT: OPPOSITE HIP ACTION: ELEVATE R HIP & DEPRESS L HIP 4. "CATCH YOURSELF" GAME IN FRONTAL PLANE 5. STANDING BEHIND BBT FOR "BACKSTROKES" 	<p>ARMS IN FRONTAL PLANE FOR ASSISTANCE AS AN "AIRPLANE"</p> <p>[REPEAT 1-5 OTHER SIDE]</p>
	---"GAIT" GAME & FIND A PARTNER--- PARTNER NAMES "A" AND "1"	MEMORY GAME TO PARTNER
<u>PARTNER:</u> BEHIND BBT AT "HOME," FACING PARTNER ON OTHER SIDE	<ol style="list-style-type: none"> 1. LIGHT COMPRESSIONS UP & DOWN W/ PARTNER IN FRONT OFFERING ARMS. CUE: "MARCH UP FOR A BIT/DOWN FOR A BIT" PROG.: REACTION GAME TO LEADER'S CUES: "L/R FOOT UP" & "L/R FOOT DOWN" 	<p>REG.: DO SAME FROM FLOOR. CUE: "TRY TO SWITCH LEGS"</p> <p>MOVING PARTNER TRAINS MOBILITY & STABILIZING</p>

OF BBT	2. [CHANGE PARTNER ROLES]	PARTNER TRAINS STABILITY
	---"GAIT" GAME: WALK AROUND 2 BBTs & RETURN REACTING TO "FREEZE" CUE & FIND A NEW PARTNER---	CUE: "FREEZE" & "WALK" MEMORY GAME TO PARTNER
<u>PARTNER:</u> TOP OF BBT	1. LIGHT COMPRESSIONS ON TOP, "TAPPING" DOWN WITH ALTERNATING LEG PROG: REACTION GAME TO CUES: "TAP L/R" 2. [CHANGE PARTNER ROLES]	CUES: "MARCH UP & TAP DOWN, CHANGING LEGS" REG.: KEEP ENTIRE SERIES ON THE FLOOR
	---RETURN TO INDIVIDUAL WORK---	
STANDING TO BBT/FLOOR MOBILITY	1. (BEHIND BBT) REACHING ARMS FORWARD TO BBT SURFACE & KNEEL; PUSH UP 2. (IN FRONT OF BBT) SITTING/SQUATTING, TURN 3. (BEHIND BBT) KNEELING ONTO BBT; BOUNCING	USE ASSISTIVE DEVICE AS NECESSARY
KNEELING STABILITY & MOBILITY ON BBT	1. "70-30" FOR "KNEEL TAPS" TO BBT SURFACE 2. "50-50" LEG WEIGHT BEARING TRACKING L & R 3. KNEELING "BOWING" HINGES 4. QUADRUPED HAND "BUBBLEWRAP" GAME	PROG.: TOES OFF OF FLOOR REG: STAY STANDING.. *MINIMIZE KNEE TIME
	---YOGA MAT FOLDED 1/2 IN FRONT OF BBT---	BALL SQUEEZES FOR ARTHRITIS
LUNGING TO SIDE-SITTING AT L/R SIDE OF BBT	1. L FOOT FORWARD, STAGGERED STANCE "LUNGES," LOWERING R KNEE NEAR/ONTO BBT 2. "R HIP ROCKS" FROM WARMUP, PRESSING INFERIOR HIP INTO BBT & RELEASE 3. SIDE-LYING SUPERIOR LEG EXTERNAL/INTERNAL ROTATION. PROG.: SUPERIOR LEG ABDUCTION 4. 5. 6. [REPEAT #1,#2, #3]	PROG.: ROTATION. USE UPPER BODY TO SUPPORT ON THE STB/BBT/FLOOR AS NECESSARY & APPROPRIATE AFTER #3, TURN AROUND ON BBT OR STAND & REPEAT
PRONE STABILITY	---OPTIONAL PRONE ASSISTED SPINAL EXTENSION W/ ELBOWS OR HANDS ON FLOOR---	OMIT FOR OSTEOPOROSIS
SITTING ON BBT	1. VISUAL TRACKING R & L SIDE HOLDING STB (v.A.) 2. HIP OPENERS: BUTTERFLY ADDUCTOR WORK	USING STB AS ABLE. SUPINATED GRIP.
SUPINE/ INCLINE ON MAT & BBT	1. W/ STB: ALTERNATING ELBOW FLEXIONS 2. W/ STB: OVERHEAD LAT PULLS 3. SLOW SPINAL FLEXIONS W/HANDS 4. TRICEP PRESSES FLOOR	STB BETWEEN KNEES AS APPROPRIATE REG.: WITHOUT STB
SUPINE BRIDGE W/ HEAD ON BBT TOP & FEET ON FLOOR/MAT	1. BILATERAL BRIDGES, HANDS INTO FLOOR 2. TOE RAISES/CALF RAISES, COMBINING 3. ALTERNATING UNILATERAL BRIDGES (REG.: DORSIFLEX OR PLANTARFLEX) 4. CHEST STRETCH, EXTENSION, & BREATHING 5. T'AI CHI MOVEMENT BEFORE STANDING	"Single leg bridges dramatically can improve stability of the ankle, knee, & hip complex & reduce falls" (Shoenfelder)
	SLOWLY TRANSITION TO STANDING	
BEHIND BBT AT "HOME"	1. FLYING BIRD 2. PAINTING THE WALL 3. WILLOW TREE 4. WISE OWL TURNS 5. GALLOPING HORSE	
STRETCHES	ANTERIOR TIBIALIS, QL, & MAJOR MUSCLES	(Bernier, Jags)