PEP305
Handout
Materials
Part I
Teaching Methods: Walk Programs

Program: Walk

Objective: Easy-to-follow physical activity; very little formalized choreography
Great for “on-the-spot” need for a workout

Movement: Group walks in a circle
Make sure walk clockwise and counter-clockwise

Usage: Special populations (elderly, obese physical limited, pre & post-natal)
Athletic populations (with varying intensity)
Co-educational groups as a movement mixer, general population

Facility/Equip: Larger room is better, but not necessary; no extra equipment needed

Modifications: 1. Establish speed lanes
2. Change strides
3. Vary the intensity of the walking: Spontaneously (i.e., fartlek training)
4. Create an interval walking workout (Intensity specific to fitness level)
5. May add an in-place march facing center
6. May add walk in and out of circle
7. Add free-style aerobics periodically: facing center
8. Have students lead free-style aerobics
9. Add a formal rhythmic warm-up to it: facing center
10. What about walking with arm variations?

Class Name: No-Sweat Workout
Express Walk
Lunch Hour Walk
Walk-It-Out

Music: Instructor’s choice: Use of theme is excellent
May choose multiple themes

Tempo: From 124 - 156
124 - 135 beats per minute is enjoyable for many

Instructor Notes: Walk with group to get direction
Walk opposite direction for better eye contact with students and for feedback
Cuing is simple; much of this class is follow

Example Cues: March in place, let’s walk, faster, slower, bigger strides, use your arms,
swing your arms, other direction, face center, walk center, walk back

Dr. Kravitz, How about calling it the sandwich workout?
Teaching Methods: More Walking Programs

Program: Walking Patterns
Objective: Easy-to-follow physical activity; very little formalized choreography
Movement: All walking patterns, some freestyle choreography mixed in
Usage: Special populations (elderly, obese physical limited, pre & post-natal)
Athletic populations! and highly fit groups do well with these patterns
Co-educational groups and general population
Facility/Equip: Larger room is better, but not necessary; no extra equipment needed
Patterns:

I. Double circles
   A. Start from one big circle
   B. Create 2 circles by traveling down the center of room in 2 lines:
      1. Modifications: zig zag small, zig zag big, variation in strides,
         add leaps, add knee lifts, change direction (face in, face out,
         walk backward): Note usually only do this down center
   C. Good idea to pick some good movement leaders for this program
      and explain to them in advance what they will be doing
   D. Instructor needs to demonstrate each movement in front of the leaders

II. Two lines
   A. Split class in two lines on either side of room
   B. Great to add simple free-style aerobics when in lines
   C. On instructor cue to cross over, lines cross over to other side
      1. May wish to have them cross over 2 times

III. Four sides of room
   A. Have entire group face “the front of the class”
   B. Only pattern that needs to be on the beat to work well!!
   C. Main pattern: 8 walks fr. & 8 walks bk, 1/4 TURN 8 walks for 8
      walks bk, 8 walks fr. & 8 walks bk, 8 walks fr. & 8 walks bk
   D. When facing the room can add vertical aerobics (add-on style)
      1. All in cts of 8
      2. After each 8 count the group turns 1/4 turn
   E. Each time the group reaches front of the class the instructor needs
      to be ready to give and show the movement cue

IV. Power Lines
   A. Put class in columns
   B. Each column turns at front of room and walks to back, turns again
      and returns to front of class (be careful who your leaders are)
   C. Can add aerobics when group is facing front
   D. May also do a number of different repetition walks (1, 2, 3 or more)

Class Name: Patterns Workout, Power Patterns, Dynamic Pattern Aerobics
Music: Instructor’s choice: Use of theme is excellent
      May choose multiple themes
Tempo: From 124 - 156 is very adequate
Instructor Notes: All of these patterns require good group management
Example Cues: March in place, face center, face wall, face mirror, walk, faster, slower, hold-up
Cues are very directional cues for these patterns
Teaching Methods: ‘Fusion’ Cardio Kick-Boxing Class

Program: Power Lines with Cardio Kick-Boxing skills

Objective: Very little formalized choreography: Add-on technique with skills

Movement: Power lines (column technique) with kick-boxing skills
Can also do this program in a circle format

Usage: With appropriate modifications: Special populations (elderly, obese, physically limited). Athletic populations and highly fit groups do well with this program. Good with co-educational groups and general population

Facility/Equip: Larger room is better; no extra equipment needed

Workout Design

I. Power Lines
   A. Put class in columns
   B. Each column turns at front of room and walks to back, turns again and returns to front of class (be careful who your leaders are)
   C. Add kick-boxing moves while class is facing front
   D. May also do a number of different repetition walks (1, 2, 3 or more)

List of sample kick-boxing moves:
   Jab
   Hooks
   Upper Cuts
   Elbow Strike
   Double Jab
   Flury
   Side Lunge/Step—Kick
   Squat Knee
   Knee front and back
   In and out of circle
   Power Stride Punch
   Boxer shuffle
   Power Stride (upper cut)

Class Name: Power Kick-Boxing, Kick-Box Extreme, Dynamic Kick-Boxing

Music: Instructor’s choice: Use as a theme class is excellent
May choose multiple themes

Tempo: From 124 - 156 is very adequate

Instructor Notes: Once group understands power lines, this is an easy-to-follow class

Example Cues: Use the terms as cues: jab, hooks, upper cuts, elbow strike

Safety Note: Tendency to punch to hard. Show students how to use power but not injure joints with punches.
Compulsory Warm-up (General Phase)

Section 1. (Combo I)
32 cts March only

Section 2. (Combo II)
16 cts March with bilateral arm punch (or push) forward
16 cts March with bilateral arm punch (or push) side
16 cts March with bilateral arm punch (or push) overhead
16 cts March with bilateral arm fly movement

Section 3. (Repeat Combo II)
16 cts March with bilateral arm punch (or push) forward
16 cts March with bilateral arm punch (or push) side
16 cts March with bilateral arm punch (or push) overhead
16 cts March with bilateral arm fly movement.

Section 4. (Repeat Combo I)
32 cts March

Section 5 (Combo III)
32 cts Step touch only

Section 6. (Combo IV: Note, Still in a step touch)
16 cts Step touch with bilateral arm punch (or push) forward
16 cts Step touch with bilateral arm punch (or push) side
16 cts Step touch with bilateral arm punch (or push) overhead
16 cts Step touch with bilateral arm fly movement

Section 7. (Repeat Combo IV: Still in a step touch)
16 cts Step touch with bilateral arm punch (or push) forward
16 cts Step touch with bilateral arm punch (or push) side
16 cts Step touch with bilateral arm punch (or push) overhead
16 cts Step touch with bilateral arm fly movement

Section 8. (Repeat Combo III)
32 cts Step touch only

Section 9. (Repeat Combo I)
32 cts March only

Dynamic Joint Isolations
32 cts Neck rotation; neck flexion/extension
16 cts Shoulder rolls backward
16 cts Shoulders rolls forward
32 cts Lateral spinal reach
32 cts Spinal rotation
32 cts Side-to-side lunges
32 cts Ankle (one side): heel lift
32 cts Ankle (other side): heel lift
**Benefits of an Effective Warm-up**  
Lan Kravitz, Ph.D.  Teaching Methods

- Increase in body temperature
- Gradual increase in heart rate, stroke volume, blood flow, and breathing rate
- Gradual redistribution of blood flow to working muscles
- An increased rate of oxygen exchange between blood and muscles
- Increase in metabolism of carbohydrates and fats

**Benefits of Effective Warm-up cont.**

- Faster transmission of nerve impulses
- Increase in force and speed of muscular contraction
- Increases secretion of synovial fluid in joints
- Decreased risk of acute injuries of soft tissues
- Increases perceived energy level of students

**Biological Systems at Work**

Cardiorespiratory System

- Neuromuscular System

- Metabolic Pathways

**The Warm-up Case for Safety**

- Warmed-up muscle has more elasticity
- Colder muscles more likely to be injured
- Increase in synovial fluid adds an anatomical shock absorber to weight bearing joints
- Abrupt exercise has been shown to lead to heart arrhythmias and an abnormal increase in blood pressure

**NoStretching in the Warm-up**

- Was once the standard
- Group-led exercise has removed
  - Warm-up includes a dynamic muscle-joint isolations phase
  - Stretching is a muscle lengthening technique
  - Stretching is most optimal after a workout when increase of about 4 degrees Fahrenheit
  - Typically a warm-up may increase core temperature 1 to 2 degrees

**Three Key Warm-up Components**

1. Rehearsal Moves
   - Less intense identical movements of workout phase
   - Analogy: SAID principle
     - Specific Adaptations to Imposed Demands
2. Full-Body Movements
   - Not identical movements to workout phase
   - Purpose to engage the major muscles
     - Example: use of rhythmic squats or lunges
Three Key Warm-up Components cont.

3. Dynamic joint isolations
   - Range of motion activities involving contraction of agonist and antagonist muscles around a joint

Phases of Warm-up: Cardio Exercise

1. General, core temperature warm-up (rehearsal and full-body movements)
2. Musculoskeletal warm-up (dynamic joint isolations done rhythmically)
3. Pre-cardio warm-up, if aerobic activity follows (rehearsal moves at a gradually increasing intensity)

Phases of Warm-up: Resistance Exercise

1. General, core temperature warm-up (full-body movements such as cycling, walking, jogging, etc)
2. Musculoskeletal warm-up (dynamic joint isolations done with light to moderate resistance: light set before a submaximal or maximal exertion)

How Long Should the Warm-up Be?

- No one really knows? ~3 to 10 minutes
- Generally speaking:
  - The higher the intensity of the workout
    - Longer warm-up needed
  - The older the students
    - Longer warm-up is needed
  - Intense enough to increase body temperature, but not so strenuous to cause fatigue

Pit Falls to Avoid in Group Exercise Warm-up

- Staying in one spot the majority of the time
- Avoid nonfunctional bodily movements

The Warm-up Case for Weight Management

- Increase in metabolism of carbohydrates and fats will continue through the rest of the workout
- Less production of lactate will increase energy output potential
Circuit Training

Len Kravitz, Ph.D.

Circuit training was developed by R.E. Morgan and G.T. Anderson in 1953 at the University of Leeds in England (Sorani, 1966). The term circuit refers to a number of carefully selected exercises arranged consecutively. In the original format, 9 to 12 stations comprised the circuit. This number may vary according to the design of the program. Each participant moves from one station to the next with little (15 to 30 seconds) or no rest, performing a 15- to 45-second (or more) workout of 8 to 20 repetitions (or more) at each station (using a resistance of about 40% to 60% of one-repetition maximum). The program may be performed with exercise machines, hand-held weights, elastic resistance, calisthenics or any combination.

By adding a 30-second to 3-minute (or longer) aerobics station between each station, referred to as aerobic circuit training, the method attempts to improve cardiorespiratory endurance as well (although this has not been conclusively supported in experimental research). Variations of this aerobic circuit training model include performing 2, 3, 4 or more exercise stations in series, and then performing the aerobics station.

Benefits of Circuit Training

Numerous investigations have been completed measuring the physiological benefits of circuit weight training. Circuit weight training has been shown to increase muscular strength from 7% to 32% while decreasing the percent of fat from 0.8% to 2.9% (Gettman & Pollock, 1981). Gettman and Pollock’s review of the literature also showed an increase of fat-free weight (1 to 3.2 kg) with no subsequent change in body weight. Kilocalorie expenditure has been estimated to be approximately 5 - 6 kcal per minute for women and 8 - 9 kcal per minute for men (Hempel & Wells, 1985; Wilmore, Parr, & Ward, 1978). In terms of cardiovascular function, studies have shown little to mild improvement in aerobic capacity (5% to 9.5%) from participation in circuit weight training as compared to other aerobic modalities (5% to 25%) (Kass & Castriotta, 1994; Peterson, Miller, Quinney, & Wenger, 1988). Kass and Castriotta support the contention that the mild increases in aerobic capacity are due primarily to increases in fat-free mass from the circuit weight training, and not changes from the main factors affecting aerobic capacity: cardiac output (heart rate x stroke volume) or arterial-venous oxygen difference (exchange of oxygen and carbon dioxide at the cellular level).

Traditionally, individuals with cardiovascular disease and hypertension have been discouraged from performing any type of resistance exercise. However, circuit training performed at a moderate intensity (40% of repetition maximum) in cardiac patients has demonstrated significant increases in strength (13% to 40%), with no cardiac or orthopedic complications (Kelemen et al., 1986; Stewart, Mason, & Kelemen, 1988). Furthermore, circuit weight training does not appear to elevate resting blood pressure or heart rate, and may beneficially lower resting diastolic blood pressure in borderline hypertensives (Harris & Holly, 1987).

Very little information is available on the psychological benefits of participation in circuit weight training. However, with law enforcement officers positive changes in mood, anxiety, depression and hostility have been observed (Norvell & Belles, 1993).
Teaching the Link
A, A + B, A + B + C, A + B + C + D, A + B + C + D + E

Link 1
A  March
B  Step side kick
C  Double hop combination
D  Double travel to side
E  Knee Lift

Link 2
A  Step touch
B  Basketball shuffle
C  Low- or high-impact jacks
D  Power Strides
E  Karate kicks
Medicine Ball Function Circuit

1. Lunges Side to Side
   a. Side to Side exchange of ball (8 rep)
   b. Press ball forward and back into chest (8 rep)
   c. Press ball overhead (8 rep)

2. Squat
   a. Press ball forward and back into chest (release ball on way into chest) (8 rep)
   b. Biceps curl with squat (bilateral and unilateral) (8 rep)

3. Single Arm Shoulder Press
   a. With and without other arm helping (8 rep)

4. Jog with ball
   a. Hold into chest and jog
   b. Hold over head and jog

5. Sumo Jumps and Upper Body Figure ‘8s’
   a. Two sumo jumps with ball held low (arm extended)
   b. Four figure 8 patterns with ball in Wide stance
   c. Four overhead throws

6. Stationary lunges with Triceps Extension (8 rep) [Change lunge]

7. Squat Position: “Tree Combination”
   a. Start with medicine ball in chest
   b. Press overhead and back down
   c. Reach to the side and lunge to the side
   d. Repeat: reaching and lunging to other side

8. Shuffle toss with partner--in same direction and opposite direction

9. Seated Position Abdominals
   a. Figure 8 with arms (8 rep)
   b. Feet on and off the floor (note, feet off floor may be stressful for some individuals with back problems--advise them to keep feet on floor)

10. Partner Catch for Abs
    a. One person seated on floor
    b. Toss medicine ball center, side, other side
    c. Seated person throws back ball (16 throws) Change positions

11. You and your partner create a Floor Medicine Ball Station

12. You and your partner create a Standing Medicine Ball Station
<table>
<thead>
<tr>
<th>A</th>
<th>March on ground</th>
<th>32 cts</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Basic lead (8x)</td>
<td>32 cts</td>
</tr>
<tr>
<td></td>
<td>Basic lead other leg (8x)</td>
<td>32 cts</td>
</tr>
<tr>
<td>C</td>
<td>Alternating lead (8x)</td>
<td>32 cts</td>
</tr>
<tr>
<td>D</td>
<td>Turn step (8x)</td>
<td>32 cts</td>
</tr>
<tr>
<td>E</td>
<td>Abduction/turn step (4x)</td>
<td>32 cts</td>
</tr>
<tr>
<td>F</td>
<td>Alternating knee lift (8x)</td>
<td>32 cts</td>
</tr>
<tr>
<td>G</td>
<td>Repeater knee lift (4x)</td>
<td>32 cts</td>
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<tr>
<td>H</td>
<td>V Step (4x on one side)</td>
<td>16 cts</td>
</tr>
<tr>
<td></td>
<td>V Step (4x on other side)</td>
<td>16 cts</td>
</tr>
<tr>
<td>I</td>
<td>T Step (4x)</td>
<td>32 cts</td>
</tr>
</tbody>
</table>

Finish marching in place on ground
STEP BITS

Step Height Question?
Research directed by Lee Kravitz at San Jose State University substantiated that an 8 inch high step significantly improves cardiorespiratory endurance. Increasing the step height (above 8 inches) may add more challenge, but it also changes other variables including posture, knee stability and lower limb risk. The recommendation to avoid knee flexion approaching 90 degrees with your step height is a conservative guideline that is easy to follow.

Balance the Hip Extensors and Flexors
The repetitive stepping action of step training can potentially create a muscular imbalance favoring the hip flexors. This could lead to lower-back stress due to the line of pull that the hip flexors apply on the kinetic chain. Make sure you do a number of hip flexor exercises for every leg movement with an extended leg. Stand tall on the platform and extend the lifting leg back, not up.

Warm-Up Strategy
Begin with an active warm-up off the bench, similar to an aerobics class. Transition to some platform stepping drills to prepare the student for the stepping pattern in the workout. Then proceed to a muscle/joint preparation that specifically includes abductors, gluteus maximus and hip flexors.

Calf Controversy
Avoid overstretching the calf muscles in the warm-up. Do not stand on the platform and press the heels to their fullest point. There is a risk you may stretch too far, causing undue muscle soreness. This stretch is much more appropriate at the end of the workout.

Always Cool-Down
As with any type of physical activity, the cool-down phase is an important component in helping promote physiological recovery, psychological relaxation, and the prevention of delayed-onset muscle soreness. The major muscles that need to be stretched are the soleus, gastrocnemius, quadriceps, hamstrings, gluteus maximus, and erector spinae.

Step-Out Squats
The key to this great thigh and buttocks exercise is to squat down with the body weight evenly balanced within the legs. Keep the knees over the ankles.

Straddle-Up Combinations
When stepping up from a straddle-down, place the lead foot slightly forward of the body, similar to normal stepping technique. Avoid the tendency to place the lead foot directly under the hips. This will cause the knee to prosecute (unsafely) forward.

20 Step Training Tips to Success
1. Make sure you step entirely on the top part of the platform with your entire foot, not allowing any part of your foot to hang over the edge.
2. Start with a 4" or 6" height. Don't rush to raise the height of the bench. Most people find the 6" height to provide sufficient resistance.
3. Adding hand-held weights (up to 5 lbs) changes your aim into shortening your stance, which may increase your biomechanical load and decrease your safety.
4. To decrease your intensity, lower your bench or stop stepping and march in place.
5. Use a good sliding mat or cross-training shoes for your workout. The ideal on some running shoes does not provide the necessary freedom of movement and support needed for some participants.
6. Step quickly onto and off of the platform. Avoid pounding your feet on the ground and platform. Also, try not to sink into a bottom, as this causes you to remain on the balls of your feet.
7. Remember not to lock your knees on the descending phase of the step pattern.
8. Avoid any movements that travel forward and down off the bench.
9. Drink plenty of water before, during, and after your step training. Because you are not using as many large muscle groups as you step, you may notice yourself perspiring more.
10. Be aware of the potential for lower back/hip syndrome. Many people will enjoy the variety and uniqueness of step training so much that they will continue their other physical activities. Doing a variety of exercise programs, what we call cross-training, lessens the stress on many specific body parts, and still allows you to place a lot of demands on your body.
11. If you feel any discomfort underneath or around the knee you are stepping on, see your health practitioner. Bed rest may not be the best activity for you.
12. Always watch your platform when stepping, but make sure not to drop your head forward. Keep the step in full view as you move.
13. Be careful of overstretching the leg muscles. They can cause you to lean too far forward, straining your lower back, and completely losing the feel of the leg on ground impact.
14. Do not step backward onto the step.
15. When stepping, lift more with the loaded leg that is being placed onto the bench as opposed to pushing off the extended leg on the ground.
16. As you step onto the platform allow your body to do a slight full body lean. Be careful to just bend forward to the hips, as this may be stressful on your back.
17. Occasionally vary your step height in workouts to accommodate the body's periodization process of overloading and recovery.
18. Do not do more than 5 repeat steps on one leg at a time. Also, regularly switch your landing leg while stepping.
19. Be aware of the signs of overstretching: tightness, stiffness, tightness or pain in the chest, loss of muscle control, or nausea. If you experience any of these signs, stop immediately. See your physician to determine the cause.
20. Remember is the key word for special populations including obese, pregnant, and seniors. Being obese and pregnant may impair a person's biomechanical awareness, resulting in a loss of balance. Step height, movement speed, frequency of training, and duration of training need to be thoroughly considered for these populations.

Side-to-Side Lunges
With side-to-side lunges, the hips and shoulders should face forward. Do not bend too far forward at the hip or overreach the spine.

Step-Back Lunges
Keep the body weight predominantly over the platform leg. Hold your torso up, not dropping forward at the hip. The leg reaching back should make close contact with a slightly flexed knee and with the heel off the ground.

Side Leg Lifts
Side leg lifting combinations are excellent for the abductor muscles of the outer leg. Make sure you keep the toes facing forward as you lift the leg. This will keep the true hip flexors from doing most of the work.

"Grouchco Marx Stepping"
There is no documented research that elucidates the most appropriate tempos for eliciting a cardiorespiratory effect. Surveys of nurses have indicated that the activity of 1 to 1½ beats per minute are safe and common for most people. Faster tempos have created a new phenomenon but infamously called, "Grouchco Marx Stepping." This "grouchco" body position never gives the knee and hips enough time to extend, which could lead to knee problems.

Turns on the Step
You can avoid a host of knee-related problems by rotating all pivoting movements on a loaded leg (weighted) knee.
Push-Up and Step Back Lunge

Push-up Primary movers: pectorals, anterior deltoid; Joint Motion: horizontal flexion
Performance Techniques (shoulder girdle and spinal stabilization)
Neutral Back Spine; Neutral Cervical Spine
Bracing and/or Transverse abdominis activation; Rigid torso

1. Modified Push-up (knees):
   a. Compare with and without weights
   b. Abduction at 30° and 75°

2. Position Assisted Push-up and Gravity Resisted Push-up
   a. How can the intensity be varied?

3. Push-up on Physioball (on ball and on floor)
   a. Abduction at 30° and 75°

   Primary movers: gluteus, hamstrings, quadriceps
   Joint Motion: Hip extension, knee extension
   a. Stand with feet together or slightly apart
   b. Neutral spine: brace abdominals or transverse abdominis activation
   c. Arms stay extended to side with/without dumbbells (may do with a biceps curl)
   d. Step back (~2.5 to 3 ft) with one leg landing softly on TOE
   e. Hips directly below shoulders and lead knee over the lead foot
   f. Lower to 90° angle; trailing leg remains bent
   g. Important performance technique: Touch back toe so weight stays on lead leg

5. Concentrated 1-Arm Push-up with Medicine Ball
   a. How can the intensity be varied?

6. Traveling Push-Up with Medicine Ball and Weights
   a. Develop some combinations

7. Wheel Lunge
   a. Develop/create some combinations

8. Traveling Push-up with Weights
   a. Develop/create some combinations

9. Rotating and Balancing Plank
   a. Focus on core activation
   b. Create balance challenges
Upper body and Squat Variations
(emphasis on function, balance and stability)

Upper body-chest: pectorals, anterior deltoid; joint motion horizontal flexion
Upper body-back: rhomboids, mid-trapezius, latissimus dorsi, teres major; joint motion horizontal extension
Performance Techniques (shoulder girdle and spinal stabilization)
Neutral Back Spine; Neutral Cervical Spine
Bracing and/or Transverse abdominis activation; Rigid torso
Lower body: gluteus, hamstrings, quadriceps; joint motion, hip extension and knee extension
Performance Technique (trunk stabilization in neutral spine) Bracing/Transverse Activation

1. Stability Ball Incline Chest Press (with dumbbells)
   a. Two-arm single arm version (palms starting facing in)
   b. Two-arm single arm barbell version (arms pronated)

2. Step-Up on Bench (High step position) (with dumbbells)
   a. Focus on balance and core stabilization; Variation 1 — Add crane position
   b. Variation 2: SIDE Step-up
   c. Variation 3: Incorporate lungs into and out of the Step-Up on bench

3. Stability Ball “Piston” Pump Presses and Double/Single Flyes (with dumbbells)
   a. Single arm alternating in barbell arm position (Incline)
   b. Lower one dumbbell and do repeated single arm presses
   c. Flyes (double and single arm) allow arm to comfortably lower to 90 degrees

4. Squat With Overhead Press (with medicine ball)
   a. Vary position of legs (narrow and wide)
   b. Work on technique of squat

5. Stability Ball Seated Row (with tubes) Partner Exercise
   a. Double arm version and single arm version
   b. Vary the line of pull

6. Combination Squat and Lunge (with or without platform)
   a. Student-created squat/lunge combinations

7. Staggered and Square Stance Single Arm Row (with weights and bench)
   a. Emphasize neck and spinal stabilization

8. Single Leg Squat (on bench)
   a. Emphasize balance and stability

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Performing the Squat
1. Stand with feet shoulder width apart
2. Toes forward or slightly turned out (no more than 35 degrees)
3. Keep the back in its normal lumbar position (transverse activation)
4. Keep head up with eyes looking forward
5. Sit back with the buttocks and simultaneously lean slightly forward with the torso
6. Descend and ascend with a slow, even tempo
   Keep your weight over you ankles
   Keep your knees aligned over your feet
7. Descent for most people until there is approximately 90 degree angle between the upper and lower leg. There is little evidence that going lower enhances the physiological benefits
8. Breathing: Inhale going down and exhale coming up