

Southern Illinois University Carbondale
School of Human Sciences
Organization of Sport and Exercise Science

Southern Illinois Wellness Expo
WORKOUT MANUAL

The following pages contain instructions on how to put together a solid fitness workout plan. As you will see, much of the decision-making will be left up to you, so that you can design a program that fits your needs and that you will adhere to in the future. We wish you success in your fitness endeavor and we hope that you have fun! If you have any questions, contact Dr. Phil Anton at 618-453-3116 or panton@siu.edu.

Common Questions:

For aerobic exercise, how do I decide what activity to choose?

Find an activity/machine that is comfortable for you; however, do not limit yourself to this activity/machine alone. Try a variety of activities/machines. Vary weight-bearing activities (walking/running outside or on track; treadmill walking/running) with non-weight bearing activities (elliptical machine, outdoor biking, stationary bike, rowing, nordic-trac, stair-stepper) as much as possible, but if walking/running is the only option that you have, do it 4-5 times per week. If you have the opportunity to vary weight-bearing and non-weight-bearing exercise, you should do 3 weight-bearing sessions and 2-3 non-weight bearing sessions per week.

For aerobic exercise, how do I decide how hard to exercise?

Start at a pace that you can keep for at least 10-15 minutes, if not longer. Every 2-3 exercise sessions, try to increase the speed and/or resistance at which you are exercising. NOTE: if you are increasing the duration of your exercise at the same time, minimize the increase in speed/resistance. Progression should be slow and steady.

For aerobic exercise, how do I decide how long to exercise each session?

Begin with a session of ~10 minutes. Every 2-3 exercise session try to increase the amount of time you are exercising by 1-3 minutes until you reach 30-45. NOTE: if you are increasing the speed/resistance of your exercise at the same time, minimize the increase in duration. Progression should be slow and steady. If someone is waiting, limit yourself to 30 min.

For resistance training, how do I decide how many sets and reps to complete and how much weight to lift?

Start with 2 sets of 6 repetitions with a relatively light weight – this will ensure that you are performing the exercise with the appropriate technique. If you can complete them with little problem, increase to 2 sets of 8 the next time you do that exercise. Once this becomes relatively easy, increase to 2 sets of 10 or increase the amount of weight that you are lifting. If the last few repetitions of the 2nd set are moderately difficult to complete, then you should continue with this number of sets and reps with the weight that you are lifting until it becomes relatively easy. If you cannot complete the 2nd set, you should lower the amount of weight or the number of reps the next time you do the exercise. Progression should be slow and steady.

How many times per week should I do resistance exercise?

Each major muscle group should be exercised at minimum of 2 and a maximum of 3 times per week. Once a major muscle group has been exercised, allow yourself 36-48 hours before you resistance train with it again.

How often should I take a day off from aerobic and resistance exercise?

You should take one day a week and do no strenuous exercise. Give your body a break and a chance to recover completely.

What if I miss a week or two of exercise?

Not a problem. Just re-start yourself again at your next opportunity. You may have to lower the intensity and duration.

What is normally involved in a single fitness workout?

- | | | |
|---------------------------|------------------------------|---------------------|
| 1. Warm-up (p. 3) | 3. Resistance training (p.7) | 5. Cool-down (p.36) |
| 2. Aerobic exercise (p.6) | 4. Balance training (p. 33) | |

Do I always have to do aerobic exercise and resistance exercise in the same session?

No. You can do one or the other as long as you get the appropriate number of workouts of each per week.

WARM-UP

Why do it?

Warm-up helps to prepare the body for exercise – we need to take the body from a resting level to an exercise level. Warm-up increases: heart rate, breathing rate, blood flow to active muscles, speed of nerve signal conduction to the muscles, joint lubrication, elasticity of muscles and connective tissue, enzyme activity. It also helps the body get a “jump start” on the process of metabolic by-product elimination, which will help us perform better for a longer period of time. By warming up slowly to exercise level we eliminate the “shock” of sudden, intense exercise and help decrease the possibility of muscle injury and cardiac events.

How do we do it?

- 1) 3-5 minutes of **light aerobic activity** using both the upper and lower body – this provides a general warm-up for the whole body. This can include:

- a. stepping/jogging in place
- b. walking/jogging on the treadmill or outdoors
- c. riding exercise bike (with arm-swing)
- d. elliptical machine
- e. Rowing machine, Nordic-trac, stair-stepper, etc.

REMEMBER: Start slow and work your way up in intensity each time you warm-up (even in the pool!)

- 2) 2-3 minutes of **dynamic stretching** – this provides a more specific warm-up for the muscles that you are about to use at a more intense level (especially during resistance training). All dynamic stretches should be done to a steady “1,2,3” count, but in a controlled motion (no sharp, fast movements). Do 4-5 repetitions of the following movements (see pictures/descriptions). NOTE: Prior to more intense aerobic exercise, dynamic stretching is not necessary. Simply do a slower version of the aerobic activity you have selected.

a) Arms above head:

Standing or sitting with torso in good posture position. Bring arms up so that you form a “goal post” or are in the “stick-em up” position. Keeping the back in a neutral position and knees soft, push one hand at a time up towards the ceiling and then bring it back down to the starting position. Repeat.

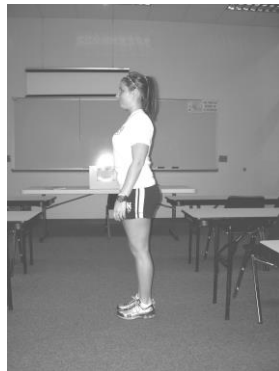


WARM-UP (cont.)**b) Front Push:**

Standing or sitting with torso in good posture position. Place hands out in front of the chest (palms forward like you are going to push something) at slightly lower than shoulder height – upper and lower arms should create a 90° angle. Push hands forward until arms are fully extended and then return to starting position. Repeat.

**c) Windmill:**

Standing or sitting with torso in good posture position. You are going to bring one straight arm forward and extend the opposite arm behind the body. Maintain the back in a neutral position. Extend the arms as far as you can in each position without changing back position. Switch arm positions. Repeat.

**d) Knee lift:**

Standing with torso in good posture position. Using a stable object for balance, raise the knee up as high as you can while maintaining the back in neutral position. No leaning forward or backwards. Return to starting position. Repeat.



WARM-UP (cont.)

- e) *Leg pendulum:*** Standing with torso in good posture position. Using a stable object for balance, lift straight leg forward (like kicking a football) and swing it back behind the body, all while maintaining the back in neutral position. Avoid leaning forward or back. Repeat. Switch legs. Repeat.



- f) *Torso Twists:*** Standing with torso in good posture position. Turn your torso to the left and right at the waist. Repeat.



- g) *Heel Raise*** Standing with torso in good posture position. Rise up on toes and lower back down on heels. Repeat



- h.) *½ Squat*** Feet shoulder width apart and legs straight without knees locked. Bend knees into ½ squat position. Return to start position. Repeat



- 3) When resistance training, do a light intensity warm-up set on each exercise you attempt. This will further “notify” those specific muscles that they are about to be used more intensely.

AEROBIC EXERCISE

Why do it?

Consistent aerobic exercise helps to improve the strength and endurance of your heart and lungs as well as the skeletal muscles you are using. This will help you to improve your ability to perform everyday/recreational activities with greater skill for a longer period of time. It also will help you to reduce your risk of cardiovascular/metabolic disease and cancer. Finally, it will increase your resting metabolic rate and the rate at which your body burns fat.

Things to remember:

- 1) Again, try a number of different machines/activities and vary weight-bearing vs. non-weight-bearing activities as much as possible throughout the week. Aerobic exercise can be done via a wide variety of activities: outdoor/indoor walking/running; treadmill walking/running; elliptical machine, outdoor biking, stationary bike, rowing, nordic-trac, stair-stepper).
- 2) You may do more than one machine during a single session of aerobic exercise.
- 3) Be sure to warm-up properly prior to more intense aerobic activity.
- 4) Keep track of your heart rate during aerobic exercise. Heart rate monitors are very useful for this purpose. If you are using palpation (a wrist or neck) to track heart rate, count beats for 10 or 15 seconds and then multiply that number by 6 or 4 to obtain heart rate in “beats per minute”.
- 5) Calculate a Target Heart Rate Range (THRR) to aim for during your aerobic work-out.
 - a. Calculate 220-Age. This is an estimate of your Maximum Heart Rate (MHR).
 - b. Take a measurement of your Resting Heart Rate (RHR). Sit or lie quietly for at least 4-5 minutes prior to measuring your RHR.
 - c. Choose 2 “percentages” (%) to keep your heart rate between during your workout. It is recommended that you keep your heart rate between 50% and 80%, but you may opt for a smaller range (example: between 60-70%).
 - d. Use the following equation to calculate your Target Heart Rate Range. Do the calculation twice (once for each percentage you have chosen).

$$[(\text{MHR} - \text{RHR}) \times \%] + \text{RHR} = \text{THRR}$$

Example: 65 year old man with a RHR of 72, wants to exercise between 60% and 70%.

$$\text{MHR} = 220 - 65 = 155$$

$$[(155 - 72) \times .60] + 72 = 121.8 \text{ or } 122$$

$$[(155 - 72) \times .70] + 72 = 130.1 \text{ or } 130$$

$$\text{THRR} = 122 \rightarrow 130$$

- e. NOTE: Be sure to evaluate your RHR periodically as it may decrease as you get in better shape (That is a good thing!). If RHR does change, it will affect your THRR calculation.

RESISTANCE EXERCISE

Why do it?

Consistent resistance training will increase tone and definition in the skeletal muscle. It will also improve muscle strength and endurance, allowing you to engage in a wider variety of physical activities. It will also increase your metabolic rate, allowing you to burn more calories during exercise and at rest.

SAFETY

- 1) Proper form/technique on each “rep” and throughout each “set”
- 2) Steady pace of reps (“1, 2, 3” – Up; “1, 2, 3” – Down)
- 3) Regular breathing pattern through each rep/set
- 4) 20-30 seconds of rest between sets
- 5) Proper Warm-up & Cool Down (before/after every workout)
- 6) Proper “spotting” at all times
 - a. hands in a position to help at all times
 - b. wide base of support and slight bend at knees (protect your back)
 - c. slight application of pressure to assist past “sticking point”
 - d. monitor condition of partner at all times

ETIQUETTE

- 1) Always rack the weights properly when you are finished using them
- 2) Allow others to use a machine, bench, etc. between your sets if they are waiting.
“Can I work in with you?”
- 3) Always be willing to spot for another lifter, but only spot if you are comfortable spotting on that machine/lift
- 4) If you sweat excessively on a machine, bench, etc. – clean it off when you are finished (bring a towel if necessary)
- 5) Refrain from excessive “he-man” grunts and expressions

DESIGNING A RESISTANCE WORKOUT:

- 1) Pick one exercise for each major muscle group (see pictures/descriptions). If you have a particular area of the body that you wish to target, pick 2 or 3. NOTE: the names of the exercises listed may vary from facility to facility.
 - a. Chest (p.8)
 - b. Quadriceps (p.12)
 - c. Upper Back (p.15)
 - d. Hamstrings (p.18)
 - e. Shoulders (p.19)
 - f. Calves (p.22)
 - g. Triceps (p.23)
 - h. Abdominals (p.26)
 - i. Biceps (p.29)

- j. Lower Back (p.31)
- k. Inner/Outer Thighs (p.32)

RESISTANCE EXERCISE (cont.)

- 2) Try to do a different exercise for each major muscle group each time you resistance train. A wide variety of exercises will ensure that your muscles are worked in as many ways possible and will result in greater improvements in performance/function.
- 3) It is often useful to alternate upper and lower body exercises during your workout. You can even alternate set for set. This saves time and allows the upper and lower body to rest while the other half of the body exercises.
- 4) **BALANCE EXERCISE:** Try to include balance training whenever possible in your resistance training workout. Balance exercises may be done individually or can be completed concurrently with a resistance exercise (EXAMPLES: sitting on a fit-ball while performing a shoulder press; standing on a balance pad while performing a bicep curl.). Be sure to ensure you level of steadiness before adding a resistance exercise to a balance exercise – use a spotter whenever possible. (see page 33)
- 5) Any resistance exercise that involves dumbbells can be done with ordinary household items for resistance (soup cans, bricks, etc.)
- 6) Resistance can also be applied by a partner manually with the hands.
- 7) Stretch bands/tubing are also very useful and inexpensive if you do not have access to weight equipment.
- 8) Many of the “machine” exercises can be converted into dumbbell exercises very easily.

CHEST

1) *Supine Chest Press w/ dumbbells*

Pointers: Bring arms out nice and wide, but make sure lower arm remains perpendicular to the floor. Only bring your elbows down far enough to form a 90 degree angle between your upper and lower arm. Do not arch your back – putting your feet up on the bench will help eliminate this problem.



CHEST (cont.)**2) *Incline Chest Press w/ dumbbells***

Pointers: See pointers for Supine Chest Press w/ dumbbells (except for putting feet on the bench)

**3) *Supine Chest Flyes w/dumbbells***

Pointers: Keep arms relatively straight with slight bend at elbow throughout motion. Do not arch the back.

**4) *Incline Chest Flyes w/ dumbbells***

Pointers: See Pointers for Supine Chest Flyes w/dumbbells



CHEST (cont.)

5) *Vertical Chest Butterfly Machine*

Pointers: Sink the chest toward the spine during the motion. Try to avoid overextending the



arms getting into and out of the machine – have someone help you if necessary.

6) *Wall Pushups*

Pointers: Place hands just outside shoulder-width apart. Keep back straight and lean into the wall as far as you can comfortably (try to get your nose as close as you can to the wall without touching - if you can't get close right away, that is OK - work your way up to that point from session to session)



7) *Modified Push-Ups*

Pointers: See Pointers for Wall Pushups, except bring your nose as close as you can to the floor without touching. To increase intensity level, try full-pushups.



CHEST (cont.)**8) Standing Chest Press w/band**

Pointers: Step right or left leg in front of the other. Make sure that the band wraps around the pole at a level that is even with the arms. This can also be done sitting in a chair with the band wrapped around the back of the chair

**9) Standing Chest Flies w/ band:**

Pointers: Stand with the band on your back and hold handles straight out to the side from your shoulders, palms facing forward. With back straight and abs drawn in, push palms toward each other keeping your arms in line with your chest while squeezing the chest muscles (slight bend in your elbows). Slowly release back to beginning position and repeat.

**10) Supine Chest Press w/band**

Pointers: Be sure that the band is not loop over a portion of the bench that will damage the band.



CHEST (cont.)11) ***Vertical Chest Press Machine***

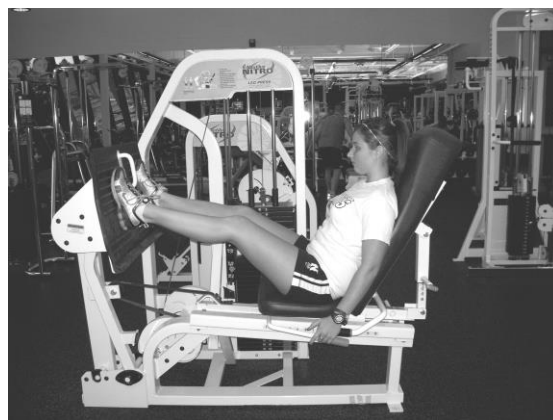
Pointers: Sit up straight with entire back against back of machine. With elbows up slowly press machine forward without locking the elbows.

**QUADRICEPS**

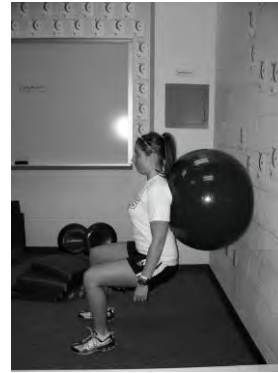
(front of upper leg)

1) ***Leg Press Machine***

Pointers: Start with upper and lower legs at slightly less than a 90 degree angle. Place your feet slightly outside shoulder width apart. Straighten legs, but do not lock the knees.

2) ***Wall Ball Squats***

Pointers: Feet just outside shoulder width apart. Keep back straight throughout motion. Never squat past the point that your upper and lower legs form a 90 degree angle.



QUADRICEPS (cont.)

3) *Leg Extension Machine*

Pointers: Straighten legs, but do not lock knees.



4) *Knee lifts*

Pointers: Lift and lower leg in slo-motion. To increase intensity either hold leg in flexed position or have a partner provide resistance.



5) *Supported Squats*

Pointers: Keep back straight. Try to lift body with legs, not arms. Start by going halfway down at first, then progress to full squats.



QUADRICEPS (cont.)

6) ***Lunge***

Pointers:

Keep back straight. Start by going halfway down and progress to full lunge where knee touches the floor. Extend front foot far enough so that the knee does not go past the toe during the lunge. For extra intensity, hold dumbbells in your hands.



7) ***Sit to Stand***

Pointers:

Keep back straight and feet shoulder width apart. This exercise can be done in any chair or on the weight bench. For extra intensity, hold dumbbells in your hands.



8) ***Seated Leg Extension with Band***

Pointers: Wrap band around foot. Sit with back straight and abs tight, slowly extend leg, stop before knee is locked.



UPPER BACK

1) ***Lat Pulldown Machine***

Pointers: Bring chest up to meet the bar as it is brought down by the arms, arching the back slightly.



2) ***Long Pull Machine*** (aka Low Row)

Pointers: Legs should have a slight bend at the knees. Back should be straight throughout the motion – bring the hands in to the abdomen (don't lean back).



3) ***Bent-over rows w/ dumbbell***

Pointers: Keep back flat throughout the motions (don't let shoulders rise or dip during the motion).



UPPER BACK (cont)

4) *Standing Row w/band*

Pointers: Keep back straight. Pull band into midsection and pinch the shoulder blades together. Increase intensity by increasing the distance between you and your anchor.



5) *Seated Row w/band*

Pointers: Keep back straight. Pull band into midsection and pinch the shoulder blades together. Increase intensity by increasing the distance between you and your anchor.



6) *Lat Pulldown w/band*

Pointers: You may have to grip the along the band rather than the handle in order to elicit the proper resistance. As you pull down, slightly arch your back and bring your chest up to meet your hands.



UPPER BACK (cont)

7) ***Reverse Fly w/ dumbbells:***

Pointers: With a slight bend in the knees, bend over ONLY at the waist to about a 45 degree angle. Holding the dumbbells in front of you with palms facing each other slowly raise the dumbbells up with a slight bend in your elbows. As you raise the dumbbells, squeeze your shoulder blades towards each other. Lower weights to starting position and repeat.



8) ***Standing Cobra w/ dumbbells:***

Pointers: Standing feet shoulder width apart and slightly bent knees, hold the dumbbells at your sides, palm facing forward. Begin movement by pulling shoulder blades back and squeezing the upper back until your hands are behind you. Slowly return to starting position and repeat.



9) ***Seated Row w/ band***

Pointers: Wrap band around both feet. Sit up straight with abs tight, slowly bring elbows back keeping them tight at your sides, squeezing the upper back.



HAMSTRINGS

(back of upper leg)

1) ***Standing Leg Curl***

Pointers: Lift and lower leg in slo-motion. To increase intensity either hold leg in flexed position or have a partner provide resistance.



2) ***Seated Leg Curl***

Pointers: Push lever forward to lower foot bar for ease of entry onto machine (repeat when getting off). Curl legs back as far as you can and then slowly let them rise back to the starting position.



3) ***Dead Lift w/ dumbbells:***

Pointers: Begin with feet shoulder width apart and a slight bend in the knees. Holding the dumbbells in front of you, palms facing you, slowly bend ONLY at the waist until

weights are almost to your feet. Slowly raise dumbbells back to starting position and repeat. DO NOT ATTEMPT IF YOU HAVE LOW BACK ISSUES.



HAMSTRINGS (cont.)

4) *Standing Leg Curl w/ Band*

Pointers: Loop band around ankle and put other end under or around a stationary object (chair or table). Standing up straight slowly lift and lower leg.



SHOULDERS

1) *Shoulder Press w/ dumbbells*

Pointers: Keep back straight – do not arch.



2) *Upright Row w/ barbell*

Pointers: This exercise can also be done holding a dumbbell with two hands. Keep back straight – do not lean back.



SHOULDERS (cont.)

3) *Lateral Raise w/ dumbbells*

Pointers: Keep back straight. Avoid shrugging the shoulders.



4) *Shoulder Press w/band*

Pointers: See pointers for Shoulder Press w/dumbbells



5) ***Lateral Raise w/ band***

Pointers: Keep arms straight throughout motion. To reduce resistance, step on band with one foot. Another way to reduce the resistance is to perform the exercise one arm at a time.

**SHOULDERS (cont.)**6) ***Front Raise w/ band***

Pointers: Keep arm as straight as possible. Keep back straight.

7) ***Front Raise w/dumbbell(s)***

Pointers: Keep arms and back as straight as possible. This can also be done using one dumbbell gripped with both hands.



8) ***Upright Row w/ band***

Pointers: Keep back straight. Pull hands up to chin.

**SHOULDERS (cont.)**9) ***Shoulder Press Machine***

Pointers: Keep back straight and against back of machine. Push machine up without locking your elbows.

**CALVES**

(back of lower leg)

1) ***Standing Heel Raise***

Pointers: This can be done on the floor, step, or on balance equipment (pads, discs, etc.). Do in slo-motion or hold the contraction at the top or do on one foot to increase



intensity (or all 3)



2) ***Toe Extension on Leg Press Machine:***

Pointers: Push machine platform out until legs are fully extended. Once in the extended position, slide feet to bottom of platform until your heels are slightly off. Using your calf muscles, point your toes, pushing the weight forward. Return to starting position and repeat.



CALVES (cont)

3) ***Wall Sit Heel Raise w/ dumbbells:***

Pointers: With back against the wall, lower the upper body until the thighs are parallel to the floor (knees should NOT come past your toes) with feet flat on the floor. With dumbbells placed on your knees rise up on your toes, squeezing the calf muscles. Return to starting position and repeat.



TRICEPS

(back of upper arm)

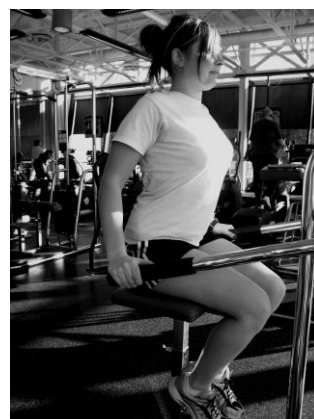
1) ***Triceps Pressdown Machine*** (aka Tricep Extension)

Pointers: Keep elbows snug to the body. Once you have started, only bring the hands up as high as pictured. You can also do these by reversing your grip (you may have to lower the resistance if you do this)



2) *Dip Machine (Red)*

Pointers: Do not let elbows flare out to the side. Keep torso straight.



TRICEPS (cont.)

3) *Triceps Overhead Extension w/dumbbell*

Pointers: Do not let elbows flare out to the side. Do not arch back.



4) *Triceps Kickback w/dumbbell*

Pointers: Keep elbow stationary – only moving part is the lower arm. Bring the dumbbell straight back.



5) ***Tricep Pressdown w/ band***

Pointers: Keep elbows snug to the body. You don't have to come up any further than pictured. You may need to do this on your knees to increase the resistance.



TRICEPS (cont.)

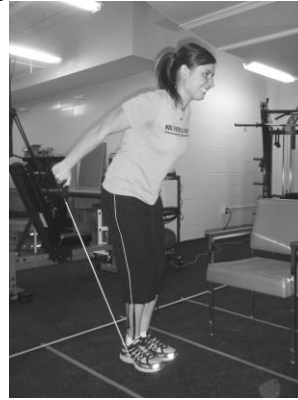
6) ***Triceps Dips on Bench***

Pointers: Place your palms on the edge of the bench directly behind you. Lift your upper body up off the bench and forward so you are not over the bench. Lower your body towards the floor until upper arms are parallel with the floor (keep the elbows pointing backwards). Return to starting position and repeat.



7) ***Triceps Kickback w/ band***

Pointers: Stand on center of band, hold both handles. Bend over slightly with back straight and abs tight. Pull elbows up (keep in this position through movement), straighten arms slowly then bring back to start position.



8) *Triceps Dip Machine*

Pointers: Sit with back against machine. Keep elbows pointed back.



ABDOMINALS

1) *Abdominal Crunch Machine*

Pointers: Pull the resistance with your abdominal muscles, not your arms.



2) *Crunches*

the Pointers: The hands may be placed behind the head to cradle the neck, but do not pull on neck during the crunch.



3) ***Crunches/Sit-ups on Fit-Ball***

Pointers: Be sure that you can maintain your balance – a spotter is very helpful. Hand-head cradle may be used on this exercise as well – don't pull on the neck!



ABDOMINALS (cont.)

4) ***Sit-ups***

Pointers: Work your way up to this one – start with crunches first.



5) ***Seated Abdominal Squeezes***

- Pointers: Sit upright with back straight. Contract abdominal muscles and hold. Release repeat. Increase intensity by holding contraction for a longer period of time or by increasing the number of repetitions performed.



6) *Abdominal Rows*

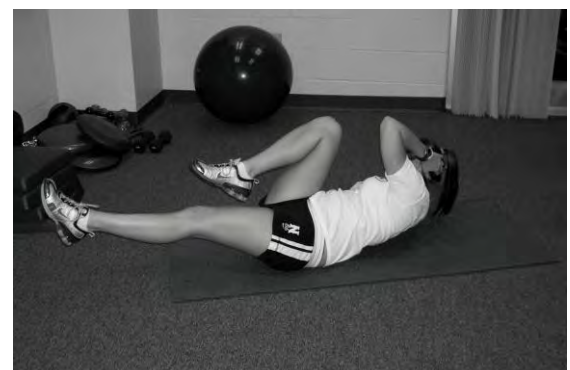
- Pointers: Lying flat on your back, raise your legs about 5-6 inches from the ground. Bring the knees in with the lower legs to reach a 90 degree angle. Hold about 5 seconds.



ABDOMINALS (cont.)

7) *Bicycles*

- Pointers: Prepare as if you are going to do a sit-up with arms behind head. Keeping elbows in line with the shoulders use both upper and lower abs to meet the opposite elbow with the opposite knee, switch sides. Slowly repeat.



8) **Plank**

Pointers: Get in the push-up position with back in complete alignment and hold position contracting the abs. Begin with 15 second hold and progress as needed. To increase challenge go down to your elbows and hold or do same move with feet on ball.

9) **Reverse Crunch**

Pointers: Sit on edge of chair, lean back slightly, keeping abs very tight. Lift legs a few inches of floor to start position. Raise knee toward chest, return to start position.

**ABDOMINALS (cont.)**10) **Oblique Torso Twist Machine:**

Pointers: Sit in machine place arms behind pads. Keeping your back straight and abs drawn in, use your abdominal muscles (not your arms) to twist pads in opposite direction. Slowly return and repeat. Lift lever and shift the arm pads to the other side, do this to repeat movement on other side of the obliques.



Red machine

Blue machine



BICEPS

(front of upper arm)

1) ***Seated Arm Curl w/dumbbells***

Pointers: Keep elbows snug to the body. Use your arms, not your back during the lifting motion. This exercise may also be done standing up.



BICEPS (cont)

2) ***Standing Arm Curl w/band***

Pointers: Keep elbows snug to the body. Use your arms, not your back during the lifting motion.



3) **Wrist Curls w/ dumbbell**

Pointers: Let weight roll down your fingers (keep feet out of the potential drop zone). Roll weight back up and squeeze at the top (make a fist)



4) **Hammer Curl with Dumbbells:**

Pointers: Standing with feet shoulder width apart, slight bend in the knees, back straight and abs drawn in, hold the dumbbells extended in front of you (palms should be facing each other). Slowly raise the dumbbells bending only at the elbow. Be sure to keep your elbows tucked into your side through the full range of motion. Lower the weights to the starting position and repeat.



BICEPS (cont)

5) **Preacher Curl Machine**

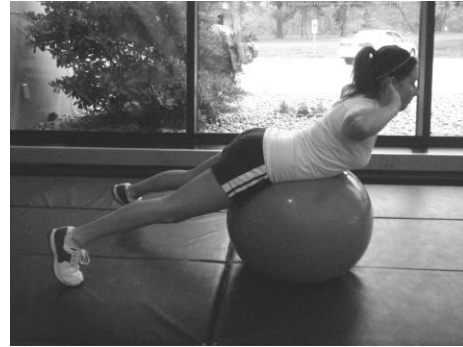
Pointers: Lift with arms, not the lower back.



LOWER BACK

1) ***Supermans***

Pointers: Lift opposite arm and leg simultaneously. Do these a bit slower than the other exercises. (Can also be done on ball)



LOWER BACK (cont)

2) ***Extensions***

Pointers: Lift opposite arm and leg simultaneously. Do these a bit slower than the other exercises



3) ***Lower Back Machine***

Pointers: Use lower back to push the resistance, not the shoulders/upper back.



INNER/OUTER THIGHS

1) ***Adduction Machine (Inner Thighs):***

Pointers: Once in machine, make sure that knee pads are facing outward and place legs next to them. Using the lever, stretch your legs as far apart as is comfortable. Once in that position, use your inner thigh muscles to push the pads in. Return to start position and repeat.



INNER/OUTER THIGHS (cont)

2) ***Abduction Machine (same machine as adduction):***

Pointers: Using the same machine turn the knee pads so that they are facing each other. Place your knees next to the pads. Use the lever to slide the pads toward each other until your legs are touching. Once in position use your outer thigh muscles to push the weight outward. Return to starting position and repeat.



BALANCE EXERCISES

1) ***Crunches/Sit-ups on Fit-Ball***

Pointers: Be sure that you can maintain your balance – a spotter is very helpful. Hand-head cradle may be used on this exercise as well – don't pull on the neck!



2) ***Sit on FitBall with feet together.***

Pointers: To increase challenge, do this exercise with your eyes closed. If feet-together position is too challenging, widen your feet and work your way up to feet-together from session to session. Increase challenge by increasing hold time.



BALANCE (cont.)

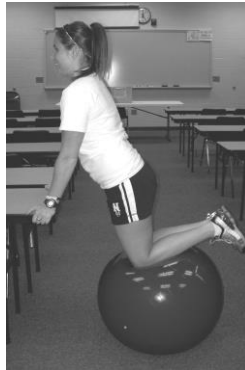
3) ***Sit on Fitball and lift knee.***

Pointers: To increase challenge, do this exercise with your eyes closed. Increase challenge by increasing hold time or by placing lifted foot on top of other foot.



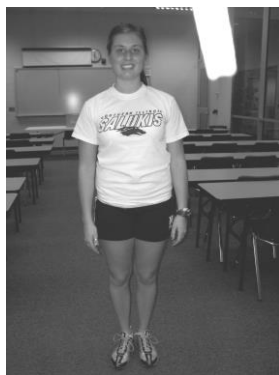
4) ***Balance on Knees on FitBall***

Pointers: Very difficult. Only attempt this under appropriate supervision. Increase challenge by doing exercise with eyes closed or by increasing hold time.



5) ***Stand with feet together with eyes open/closed***

Pointers: Increase challenge by standing on balance pad or balance discs or increasing hold time.



BALANCE (cont.)

6) ***Stand on one foot with eyes open/ closed***

Pointers: Keep lifted leg from touching the other leg. Increase challenge by standing on balance pad or balance discs or increasing hold time.



7) ***Heel-toe walk***

Pointers: Increase challenge by walking backward and/or closing eyes



OTHER BALANCE EXERCISES:

- 1) Throw a ball from hand to hand above eye level. (standing or sitting)
- 2) Throw a ball from hand to hand under one knee (standing)
- 3) Walk up and down stairs with hand on rail and eyes closed (spotter for sure!)
- 4) Look up and then down – try it slowly first and then quickly
- 5) Look from one side to the other – try it slowly at first and then quickly
- 6) Change from sitting to standing with eyes open and closed.
- 7) Walk up and down a slope with eyes open and closed.

COOL DOWN

Why do it?

Cool-down helps bring the body from exercise levels to resting levels and offers a great opportunity to increase our flexibility. It also gives us an opportunity to help “flush-out” metabolic by-products that we have produced during our exercise session – this will help us to maintain the energy boost of exercise as

well as helping to prevent muscle soreness. By cooling down slowly we help to eliminate the possibility of post-exercise cardiac problems and it helps us to dissipate body heat.

How do we do it?

- 1) 2-3 minutes of **very light aerobic activity** using both the upper and lower body – this provides a general cool-down for the whole body. This can include:
 - a. stepping/jogging in place
 - b. walking/jogging on the treadmill or outdoors
 - c. riding exercise bike (with arm-swing)
 - d. elliptical machine
 - e. Rowing machine, Nordic-trak, etc.

REMEMBER: Start at a light level and gradually slow yourself down to resting levels (even in the pool!)

- 2) 5-10 minutes of **slow/static stretching** – since our muscles are warm, this provides a chance to really improve our flexibility. NOTE: slow/static stretching can be done without previous exercise, but your movements should be even more gradual and not as extreme. All of the stretches below should begin with a slow stretch from the start to finish position to a 10 count – this motion should be smooth: no “herky, jerky” movements. The finish position should be the point where you feel mild discomfort (the point where you “feel it” – you should never feel any sharp, severe pain – if you do: STOP!). By the time you get to “8,9,10” in your count, you should be in the finish position (NOTE: you may stretch further than the man in the pictures!). Once you are in the finish position, hold this position in place for 15-30 seconds. Remember to breathe normally throughout the stretch. These stretches may be repeated more than once for added benefit. (see pictures/descriptions).

a) Handcuff:

Standing or sitting with torso in good posture position. Clasp hands behind back. Keeping arms straight, lift your hands up toward the ceiling without leaning.



COOL DOWN (cont.)

b) Side Lean:

Standing or sitting with torso in good posture position – feet should be wide. Place right hand down the center of your back (elbow should be pointed toward ceiling). Place left hand on top of your elbow and lean in the direction of your left arm. Switch arm position and repeat.



c) Wall-Chest:

Standing or sitting with torso in good posture position. Place your lower arm flat against the wall (elbow should be touching the wall) or flat against a pole or doorway. Turn toward the center of the room. Switch arm position and repeat.



d) Wall-Arm:

Standing or sitting with torso in good posture position. Place palm against the wall or pole or doorway so that arm is extended. Turn toward the center of the room. Switch arm position and repeat



e) Arm Across

Seated or standing, grasp the back of the arm and pull it slowly across the body. Switch arms and repeat.



COOL DOWN (cont.)

f) Calf:
Bring

In a standing position, place your palms flat against the wall in front of you. your right leg forward so the knee is bent and the foot is flat. Extend your left leg behind you and keep your heel flat on the floor during the stretch. Lean in like you are doing a pushup on the wall (you may have to adjust your foot positioning to get the right stretch). Switch legs and repeat.



g) Quad:

Standing with torso in good posture position. Grab right foot or pant-leg and pull your knee back without leaning forward or backward. Switch legs and repeat.
Alternate Method 1: place your foot on a chair behind you and lean back.
Alternate Method 2: Sit in chair and pull knee up toward chest



h) Hamstring Stretch – 2 Methods

Method 1: Sitting in a chair with torso in good posture position. Place left foot flat on the ground with knee bent. Extend right leg in front of you and rest your foot on your heel. Bend forward at the hips. Switch legs and repeat.



Method 2: Lie flat on back. Extend right leg flat on the ground. Grab left leg behind the knee and keeping it as straight as you can, pull your knee up toward your head. Switch legs and repeat.



COOL DOWN (cont.)

i) *Knees to chest*

Lying down on your back. Grasp your knees and pull them toward your chin. Keep shoulders flat but low back can come up slightly off the ground.

**j) *Seated Torso Twist***

Sitting on the floor, extend one leg. Bend opposite leg at the knee and place the foot flat next to the extended knee of the other leg. Place elbow on knee of bent leg and slowly turn – keep the bent knee foot flat throughout the stretch. Switch leg/arm positioning and repeat. Alternate Method: sitting on a bench – slowly turn one direction and then the other.



Can also do torso twist seated in chair, as pictured:

**k) *Buttock Stretch***

Lie flat on back. Extend right leg flat on the ground. Grab left foot with right hand so left knee is pointed at right shoulder. Bring your left leg



across your body. Switch legs and repeat

- 1.) Hip Flexor Stretch** Lie flat on back with buttocks 5-10 inches away (whatever is comfortable) from a sturdy wall, door frame, etc. Place left foot on the wall so that upper and lower left leg form ~90 degree angle (your lower back can be off the floor at this point). Put right ankle on top of left knee (kind of like $\frac{1}{2}$ "Lotus position"). Use right hand to push right knee toward the wall. At the same time, slowly lower your lower back toward the floor. Switch legs and repeat (can also be done in a seated position).



or



- 3) Progressive relaxation, Deep Breathing, Mental Imagery, Hypnosis, Massage, Hot-tub, Sauna

All of these are relaxing ways to complete your cool-down!