ADULT CORRECTIONS OFFICER CORE COURSE

PHYSICAL TASKS TRAINING MANUAL

State of California
Corrections Standards Authority

Standards and Training for Corrections Program

600 Bercut Drive
Sacramento, California 95811
(916) 445-5073

CSA Web Site
http://www.cdcr.ca.gov/Divisions_Boards/CSA/index.html

Kurt O. Wilson
Executive Director

Debbie Rives
Deputy Director

2009

Copyrighted
(May be reproduced with permission)

Effective July 1, 2009

Prepared by:

Shelley Montgomery, MA
Consultant

Daryl Parker, PhD
Exercise Physiologist

TABLE OF CONTENTS

SECTION A: INTRODUCTION

Purpose and Scope of This Manual 1
Goals of the Physical Tasks Training Curriculum 1
Job Relatedness 1
Considerations for Employers – Agency Specific Needs 2
Testing Approach 2
Medical Screening 3
Role of the Provider 3
Role of the Instructor 4
Role of the Trainee 4
Role of the Employer 5

SECTION B: TESTING PROCEDURES

When to Test During Course 6
Tests as Separate Activities 6
How to Report Test Results 6
Remediation 6
Temporary Inability to Participate in the Physical Tasks Training 6
Use of Benchmark Minimums 7

SECTION C. RESEARCH FINDINGS

Job Analysis Research—Physically Demanding Tasks 8
Exercise Physiologist's Analysis and Recommendations 9

SECTION D. INSTRUCTIONAL GUIDELINES

Equipment and Facility Setup 11
Safety Guidelines 11

SECTION E. INSTRUCTIONAL OBJECTIVES

Orientation - Physical Conditioning Basics 12
Conditioning Exercises 14
Initial Assessment 14
Final Assessment and Fitness Planning 15

SECTION F. SCHEDULES AND DIAGRAMS

Weekly/Daily Exercise Schedules 17
Plyometric Circuits 23
Pictures and Descriptions 27

APPENDICES

Appendix A. Test Report Form 50
Appendix B. Training Provider and Instructor Resources 51
Appendix C. References 52
Appendix D. Exercise Physiologist's Curriculum Vitae 53

SECTION A: INTRODUCTION

Purpose and Scope of This Manual

The primary purpose of this **Physical Tasks Training Manual** is to present the core curriculum and design specifications for the portions of the Adult Corrections Officer Core Course that pertain to the performance of physically demanding tasks. This information is essential for training providers and instructors for the presentation of the Physical Tasks and Conditioning Unit (#22). It is also of significant benefit to local agencies in the selection and training of new adult corrections officers. Furthermore, candidates for the position may find the information in this manual of benefit as they prepare to apply for the adult corrections officer job. The manual is to be used in conjunction with the Adult Corrections Officer Core Training Course Manual, revised 2009.

Note: This manual can be downloaded from the Corrections Standards Authority web site:
http://www.cdcr.ca.gov/Divisions_Boards/CSA/index.html.

Goals of the Physical Tasks Training Curriculum

Unit #22 of the Adult Corrections Officer Core Course serves two major goals: Specifically it,

1) provides trainees instruction on physically demanding job tasks, an opportunity to practice techniques, and ways to improve their abilities to perform these tasks; and,

2) is a process to assess the trainee's current capability with regard to the performance of physically demanding job tasks.

While not the primary goal of the curriculum, the program affords trainees an opportunity to develop a personal routine that they can pursue on their own (after placement in the adult corrections officer position) to maintain and improve their ability to perform job-related physical tasks.

Job Relatedness

The curriculum addresses physical capabilities of major importance for performance of physically demanding adult corrections officer job tasks. The curriculum targets the major job-related physical capabilities for the majority of adult corrections officers statewide.

Four of the Behavior Skills Tests in the course are close simulations of actual adult corrections officer job tasks and serve as the program's assessment goal (i.e., they serve as tests as well as exercises). Benchmark minimum performance levels have been established for these four tests. These benchmark minimums are required levels to receive a satisfactory course completion certificate. Most trainees will be able to exceed them, and should be encouraged to do so, just as they will be encouraged on the job to do more than simply meet minimum requirements.

The Behavior Skills Tests are job-related as determined by the statewide job analysis study of adult corrections officers. The benchmark minimums on these tests correspond to minimum, on-the-job task performance standards. The tests determine whether one can perform these important job tasks at a minimally acceptable level. Training providers who wish to issue a Core Course Completion certificate may only issue the certificate to those trainees who meet the statewide benchmarks on these four tests.

Considerations for Employers – Agency Specific Needs

The benchmark minimums in the core course are translations of the typical minimum performance levels found to be applicable across the full range of agencies participating in the STC Program. Thus, by meeting the benchmark minimums, trainees demonstrate that they are able to meet typical statewide minimum performance requirements on physically demanding tasks.

Whether meeting the benchmark minimums in the core course also indicates a trainee's ability to meet a specific agency's local performance requirements depends on how that agency's local standards compare to the statewide performance requirements.

Local agencies should not confuse the benchmark minimums utilized in the statewide core course with the specific job requirements for their particular agency. It clearly would be inappropriate to terminate an employee based on standards that do not apply to the particular agency by which they have been hired.

In circumstances where the statewide performance requirements are the same as the local performance requirements and an individual trainee is unable to meet all the benchmark minimums, agencies should evaluate the situation on a case-by-case basis. A trainee should <u>not</u> be automatically disqualified from placement in the adult corrections officer position for failure to meet benchmark minimums. The determination of how to handle the situation is made by the employing agency. The evaluation might include such considerations as the following:

- Is additional practice likely to bring the employee's performance up to the benchmark minimum(s)? If so, and if additional practice time is administratively feasible, the employer may consider providing that opportunity.

- Is the employing agency obligated under applicable statutes and/or regulations to make reasonable accommodation for an adult corrections officer who may be unable to meet minimum performance standards on the particular task(s) associated with the benchmarks in question? The employer needs to consider the issue of accommodation on a case-by-case basis.

Testing Approach

The four work simulation tests in the Physical Tasks and Conditioning Unit are as follows:

1) On a straight track, complete a 50-yard sprint within 20 seconds.

   Behavior Skill Test #35

2) Drag a 165-pound bag or dummy for a distance of 20 feet within 30 seconds.

   Behavior Skill Test #36

3) Demonstrate ability to walk a total distance of 75 feet (three 25-foot laps) within 30 seconds wearing a 30 pound air pack or backpack.

   Behavior Skill Test #37

4) On a flat course starting 15 yards back from a flight of stairs or bleacher steps, walk or jog the 15 yards, climb up 10 steps, then turn, climb back down the steps, and walk briskly or jog back to the starting point within 30 seconds.

   Behavior Skill Test #38

These tests are to be evaluated on a pass/fail basis.

The testing portion of the curriculum in the core course provides, through the benchmark minimums, a post-hire standard that agencies may require their trainees to meet as a condition of placement in the permanent adult corrections officer position.

Medical Screening

A medical clearance should be required as a prerequisite to participation in the physically demanding sections of the core course.

If the trainee has undergone a medical examination and the examining physician identified contraindicators to the trainee's participation in some portion of the training, training providers should find out what expectations the hiring agency has in terms of accommodation being made for the trainee.

Note: Sample Medical Screening Guidelines that describe the Physically Demanding Tasks of the adult corrections officer are available from the Corrections Standards Authority.

Role of the Provider

Logistical Support: In addition to the usual requirements of being a training provider that delivers an STC certified course, delivery of the physical tasks training demands specific areas of attention. For instance, the provider must arrange for appropriate facilities and equipment to support the physical tasks training. This includes adequate space, proper running and exercise surface, mats, water, stopwatches, display clocks, first aid and CPR equipment, cell phones or portable communication equipment (in case of injury off-site) and many other details necessary for a safe and effective training environment. Providers should not leave these details to the instructor as the provider may need to purchase additional equipment, arrange for their daily availability and proper maintenance. Further, the provider must develop appropriate safety guidelines for the physical tasks training and adequately brief staff and trainees on these guidelines.

Instructor-to-Trainee Ratio: Besides logistical support for training delivery, providers must assess the instructor-to-trainee ratio to make sure the trainees are receiving adequate supervision during the training and to allow enough time for the instructor to administer the Behavior Skills Tests. If necessary, providers should consult with STC to determine how best to incorporate appropriate staffing levels into the approved course budget.

Instructor Preparation: Providers also need to work closely with their physical tasks training instructors to make sure the instructors are clear on the expectations and conditions of the training. Providers should insist that each physical tasks training instructor read this entire manual before developing their lesson plan and before instructing trainees.

Instructor Qualifications: The provider should take great care in selecting the physical tasks training instructor since there are many nuances to a successful delivery of this section of the core course and there is a risk of physical injury to the trainees. It is advisable to select instructors who have completed formal training in the area of physical skills performance. Instructor training organizations are included in Appendix B.

Instructor Deportment: The provider should also work closely with the instructors to ensure a positive learning environment for physical tasks training. The informal nature of physical tasks training may create a more relaxed atmosphere than a classroom setting. Providers should work with their instructors to make sure that professionalism is continued throughout all aspects of the course including the physical tasks training portion. (Please see the **Handbook on Presenting Core Courses**, Issues in Course Delivery, Sexual Harassment and Inappropriate Comments by Instructors.)

Communication with Employing Agency: The provider must also maintain a close communication link with the trainee's employing agency with regard to physical tasks training. This includes making sure proper medical screening has been conducted prior to training, expectations by the agency are clear to both the

provider and the trainee, and regular feedback is provided to the employer with regard to the trainee's performance.

Reporting of Test Results – 30 days: The provider is responsible for submitting the results of the Behavior Skills Tests (as well as other course tests) to the employer within 30 days of course completion. Tests results should be reported on the standardized STC test report form for physical tasks (see Appendix A). Each work simulation test is listed as a Behavior Skills Test and must be given a pass or fail grade. If the test was not administered, this must also be reported. In the case of a trainee who is unable to pass the work simulation tests, it is important that the provider report the results of the testing and not interpret or predict how the employer will handle the situation. Instructors should also be advised to refrain from interpretation as well.

Core course completion certificates may not be issued to any trainee who has not successfully completed the course and passed all the tests in the course.

Role of the Instructor

As the instructor of the physical tasks and conditioning training, the instructor has two roles to serve, that of "coach" and that of "official observer". Instructors may demonstrate exercises to trainees, but after demonstration, should focus on observing trainees rather than working out with them.

In the coaching role, the instructor:

- maximizes the trainees' individual abilities to handle the physical demands of the job;
- checks the trainees "form" when performing exercises;
- minimizes the potential for training-related injuries; and,
- teaches trainees methods they can pursue on their own (after placement in the adult corrections officer position) to continue to maintain and improve their job-related physical capabilities.

In the official observer role, the instructor:

- determines whether trainees can demonstrate the benchmark minimum performance standards for physically demanding job tasks;
- documents performance on the work simulation tests; and,
- monitors compliance with the provider's safety guidelines.

Role of the Trainee

Trainees are responsible for performing all practice sessions to improve their ability to perform job-related physical tasks to the best of their ability. They must practice within the provider's safety guidelines to ensure and safeguard their own medical wellness.

Trainees also may be asked to take responsibility for helping each other during the sessions, especially when they are rotating through sessions in small groups. This includes: being cooperative; timing each other on the exercises with time limits; giving each other feedback on how they are doing; and, being equitable in sharing equipment and facilities.

Role of the Employer

Prior to enrolling the trainee in the course, employers should conduct a medical screening by an examining physician who is familiar with the types of activities the trainee will be engaged in during the course.

The employing agency should make sure each trainee who participates in the core course has been given a proper orientation to the physical tasks training several weeks prior to course attendance. This includes advising the employee that exercise clothing and athletic shoes will be required during the course as well as explaining the employer's expectations with regard to participation. Employers may find it helpful to provide each employee sections of the core training manual that pertain to the specific physical activities the trainee will be performing during the course (Unit #22, Physical Tasks and Conditioning; and, Unit #8, Defensive Tactics and Restraint Techniques).

Employers should make every effort to familiarize themselves with the provider's approach to physical tasks training. This might include an on-site visit to the course to observe the training. As with any aspect of the core course, employers should maintain regular and clear communication with the provider as to expectations and trainee performance while the course is in progress.

SECTION B: TESTING PROCEDURES

When to Test During Course

A trainee need only once demonstrate successful performance of the Behavior Skills Tests and benchmark minimums during the core course. After the instructor has observed the trainee successfully perform the tests, the instructor should focus on the improvement goal of the curriculum for that employee.

If it appears that a trainee is struggling during the practice sessions, the instructor should make special efforts to coach the trainee on the tasks in question, encourage the trainee to practice the tasks on his/her own time, and confer with the trainee's employing agency.

During the final week of training, and especially in the final sessions, the top priority must be observation of trainees performing tasks on which they have not yet met the benchmark minimums. This approach to observation of trainee's performance ensures that all trainees will receive every possible opportunity to demonstrate and receive official credit for their ability to meet each benchmark minimum.

Tests as Separate Activities

Each test is to be administered separately. When practicing or measuring performance on the four work simulation tests (Behavior Skills Tests #35 through #38), each test should be a separate activity with sufficient time for the trainee to rest between each test. Sufficient time should be approximately 2-3 minutes depending on circumstances. The work simulation tests should be administered in the order specified in Module 22.4 Final Assessment and Fitness Planning.

How to Report Test Results

Report test results on the STC standardized form provided in Appendix A of this manual. Results are *pass, fail,* or *not administered* and must be reported as such. If a trainee is not medically cleared to perform the test(s), the provider should note *Not Administered* on the Test Report Form. Absent a medical exclusion, the provider should report test results as *Pass* or *Fail.*

Test results are to be submitted to the Corrections Standards Authority and to the employing agency within 30 days after the completion of the course. If a trainee is not able to pass the four Behavior Skills Tests in this unit, the provider should be in contact with the employing agency as soon as possible.

Remediation

If a trainee is having difficulty meeting the benchmark minimums, a plan for allowing additional practice and/or instruction on techniques should be developed. This plan might include extra time after the regular class hours if administratively feasible. Any plan for remediation after the last day of the course is the responsibility of the employer.

Temporary Inability to Participate in the Physical Tasks Training

Occasionally, a trainee is unable to participate in physical tasks training due to a temporary injury or pregnancy. Note: There are twenty-eight (28) hours of Defensive Tactics training and twenty-one (21) hours of Physical Conditioning. Therefore, an agency should carefully consider the practicality of sending a trainee to the core course unless the trainee is able to participate in the full range of activities. Employing agencies should consult with the Corrections Standards Authority if trainees need to delay participation in core training until medically cleared and if this delay creates a compliance issue.

Use of Benchmark Minimums

The training provider's role is to administer the four work simulations tests (Behavior Skills Tests #35 through #38) and to report the trainee's performance on the statewide minimum benchmarks.

As noted before, the provider may not issue a core course completion certificate to trainees who do not successfully meet the statewide benchmark minimums. Further, the core course roster should indicate that the trainee did not satisfactorily complete the core course.

Even if local agencies in the state have different employment criteria than that reflected in the statewide standards (please see section on Considerations for Employers – Agency Specific Needs), training providers are still responsible for delivering the statewide core curriculum and reporting the test results according to statewide benchmark minimums. While a trainee might be acceptable to their current employer with different performance levels or job tasks than those reflected in the statewide course, it would be misleading to issue a core course completion certificate to a trainee who might then apply to another jurisdiction for employment. The subsequent employing agency might base their hiring decision on an erroneous assumption that possession of a core course completion certificate represented satisfactory performance on the statewide core specifications.

SECTION C. RESEARCH FINDINGS

Job Analysis Research—Physically Demanding Tasks

The 2000 job analysis research identified important physically demanding tasks common to the majority (more than 50%) of adult corrections officers in the state. The physical conditioning portion of the course assists in the overall preparation and basic skills to perform these tasks. Specific techniques for performing related tasks are covered in other units of the training, such as Defensive Tactics and Restraint Techniques (Unit #8).

It is imperative that the physical conditioning instructors know the tasks and performance standards to which the job tasks correspond. The instructors should explain the linkages to trainees and be prepared to answer trainees' questions about them. Also, if a trainee is having difficulty meeting the benchmark minimums, the instructor's ability to explain their relevance will help the trainee deal realistically with the problem. Those tasks most germane to the physical conditioning aspects of the core course are as follows:

- Pursue inmates on foot (running).
- Run to the scene of a disturbance or emergency.
- Physically subdue or restrain an attacking inmate by yourself.
- Physically subdue or restrain an attacking inmate with the help of another person.
- Defend yourself against an inmate armed with a weapon.
- Disarm an inmate armed with a weapon.
- Climb one or more flights of stairs.
- Run up one or more flights of stairs.
- Run down one or more flights of stairs.
- Physically separate two fighting inmates with the help of another person.
- Lift heavy objects (e.g., injured or unconscious inmate or piece of equipment).
- Drag heavy objects (e.g., injured or unconscious person or piece of equipment).
- Handcuff a non-resisting inmate.
- Handcuff a resisting inmate.
- Secure inmate in restraint chair.
- Apply restraint devices such as leg irons, travel chains, belly chains, leather restraints, etc. to a resisting inmate.
- Operate manual gates, doors, or locks.
- Perform cell extractions.

Exercise Physiologist's Analysis and Recommendations

Dr. Daryl Parker, Exercise Physiologist and Associate Professor of Kinesiology at Sacramento State University, analyzed the physically demanding aspects of the Adult Corrections Officer Core Curriculum. Dr. Parker looked at the physical demands for both the work simulation tests as well as the Defensive Tactics training. His analysis included interviews and meetings with adult corrections officers, core course instructors, on-site observations and a review of current literature on performance-based conditioning. Based on his research, Dr. Parker made the following analysis and recommendations for revisions in the course.

Analysis – Adult Core Course 2000 Version

- The Defensive Tactics portions of the course are more demanding than the work simulation tests.
- The intensities for both resistance and endurance exercises are fixed regardless of abilities (e.g., arm curls are set at 20 pounds for everyone regardless of ability, leading to sub-optimal conditioning effects).
- Defensive Tactics maneuvers require a high degree of trunk stabilization.
- Defensive Tactics involves short, ballistic movements that require dynamic abilities.
- The most common injury cited by core instructors was a hamstring strain during the 50-yard sprint, especially during the first week of training.
- Additional injuries included back strain from dragging the dummy as well as other injuries resulting from inappropriate footwear or facilities.
- Static stretching during warm-up exercises is ineffective for injury prevention and optimal performance. Static stretching leads to a decrease in both strength and power during subsequent exercise.

Recommendations – Adult Core Course 2009 Version

- Focus conditioning on performance-based fitness (versus health-related fitness) to address demands of Defensive Tactics and other physically demanding tasks.
- Integrate the Physical Tasks and Conditioning curriculum with the Defensive Tactics training.
- Move static stretching from the warm-up segment of training to the cool-down period.
- Use light plyometric[1] exercises to prepare the muscle for the more dynamic exercises. Light plyometric exercise should also serve to lessen the hamstring injuries that have been reported during sprint exercise. (Example of light plyometric exercise: skipping.)
- Retain dynamic stretching exercises at the start of the program since they will warm up the muscle without decreasing strength and power. (Example: arm circles.)

[1] Plyometric exercises are movements such as jumping, lifting, throwing aimed at linking strength with speed of movement to produce power. A plyometric movement is preceded by an eccentric contraction of the muscle (Donald A. Chu, PhD). Please see Section F of this manual for detailed descriptions of plyometric exercises.

- Base the intensity of both strength and cardiovascular exercises on the Borg Rating of Perceived Exertion (RPE) scale. By standardizing intensity to this scale, training will be optimized for everyone regardless of age, sex, body size or fitness level. (See instructional objective 22.1.5 for a description of the Borg scale.)

- Practice Defensive Tactics Footwork drills in the second week of training as these represent a light intensity calisthenic that will provide a cardiovascular warm-up. Further, this will increase the time to practice Defensive Tactics without limiting time for Physical Conditioning.

- Incorporate core (trunk) stability training into the curriculum. The development of core muscle has been linked to prevention of injury to the back and hamstrings. (Example: plank and side hover exercises.)

- Add plyometric exercise to the strengthening component of the program. This will increase the ability to carry out dynamic exercise. The recommended exercises are introductory level exercises that have a low rate of injury. The chosen exercises are easy to conduct and do not require any special equipment. The number of foot and hand contacts has been kept to a low to medium level to avoid injury.

- Add plyometric circuits at the culmination of the plyometric exercises. The circuits will require intermittent use of dynamic movements interspersed with periods of low intensity exercise. The circuits should mimic the strength, power, and endurance demands of the ground control techniques of Defensive Tactics. (See Section F Diagrams.)

- Continue sprint training throughout the program even if the standard has been met early in the course. The energy demands of Defensive Tactics are likely to be several times the 50 yard sprint standard and thus continued development of this energy system increases the likelihood of successful completion of the Defensive Tactics training.

- Test trainees on the four Behavior Skills Tests in the order specified in the instructional objectives to avoid unnecessary fatigue of involved muscles. (See Module 22.4.)

SECTION D. INSTRUCTIONAL GUIDELINES

Equipment and Facility Setup

Training facilities are likely to vary from fully equipped gyms with a variety of aerobic and weight resistance modalities to only the bare essentials. In either case, significant improvement can be realized in the areas of strength, cardiovascular fitness, endurance and flexibility with a properly designed program. Utilizing basic exercises on a consistent routine basis, whether using sophisticated equipment or one's own body weight, will achieve improvement. The exercises described in this manual require only a moderate amount of equipment. Walking and jogging can be done where a proper course is available and safety issues have been considered and addressed. Typical basic equipment includes:

- Mats
- Dummies
- Small, flexible hand size balls such as those for racket ball
- Medicine balls or basketballs
- Stopwatch
- Large display clock
- Cones for course layout and barriers
- Water
- Appropriate training shoes (trainee provided)

A sampling of equipment vendors is listed in Appendix B.

Safety Guidelines

Providers are responsible for developing site-specific safety guidelines for physical tasks training. Further, providers and/or instructors must adequately brief trainees on these guidelines. While not an all-inclusive list, areas of consideration should include the following:

<u>Advice to Trainees:</u>

- inform training staff of any injuries and/or excessive discomfort or difficulty performing the activities;
- wear appropriate training shoes such as running, walking or cross training shoes; and,
- consume adequate water to ensure proper hydration.

<u>Logistical Considerations for Instructors:</u>

- allow forty-eight hours between strength training exercises to allow muscles to repair and recuperate;
- schedule physical task training in the morning if heat and/or impaired air quality is a factor;
- provide adequate access to water;
- have in place a response plan for dealing with injuries and/or emergency medical attention; and,
- be aware that trainees may not divulge injuries to instructors because trainees may fear injuries will affect their ability to successfully complete the core course.

SECTION E. INSTRUCTIONAL OBJECTIVES

Unit 22
Physical Tasks and Conditioning
Instructional Time: 21 hours

Module 22.1 **ORIENTATION – PHYSICAL CONDITIONING BASICS**
Instructional Time: 1 hour 30 minutes

INSTRUCTIONAL OBJECTIVES:

22.1.1. Explain key components of a performance-based fitness program and the ways each contributes to fitness:

- cardiovascular conditioning
- strength
- endurance
- flexibility
- agility
- speed

Discussion

22.1.2. Define common terms used in physical conditioning, such as:

- core strength
- cardiovascular exercises
- resistance training
- flexibility exercises
- plyometrics
- recovery time
- duration
- frequency
- sets
- reps

Discussion

22.1.3 Explain the importance of "good form" as it relates to maximizing fitness and preventing injury. (Example: When muscles fatigue, form suffers and conditioning decreases; potential for injury increases.)

Discussion

22.1.4 Explain the role of Rating of Perceived Exertion (RPE) in a physical conditioning program.

Discussion

22.1.5 Examine the Borg Perceived Exertion Scale as described in the Guidelines for Exercise Testing and Prescription, American College of Sports Medicine, Seventh Edition.

- 6
- 7 = Very, very light
- 8
- 9 = Very light
- 10
- 11 = Fairly light
- 12
- 13 = Somewhat hard
- 14
- 15 = Hard
- 16
- 17 = Very hard
- 18
- 19 = Very, very hard
- 20

Discussion

22.1.6 Identify common mistakes people make when participating in a physical conditioning program, such as the following:

- weekend warrior
- lack of pacing
- lack of recovery time
- roadblocks to regular exercise
- improper lifting mechanics
- poor body positioning
- insufficient instruction
- no training plan
- training too hard
- training when injured
- poor nutrition following exercise
- poor re-hydration practices
- over hydration

Discussion

22.1.7 Discuss equipment and clothing needed when participating in a fitness program.

Discussion

22.1.8 Explain the purpose and goals of performance-based conditioning for adult corrections officers.

Discussion

22.1.9 Identify common injuries during training that might disable an adult corrections officer, such as the following:

- hamstring pulls
- knee injuries
- back injuries
- ankle sprains

Discussion

22.1.10 Identify signs of overexertion and/or potential dangers during a physical conditioning program, including the following:

- heat exhaustion
- heat stroke
- irregular heart beat
- dehydration signs
- shortness of breath
- light headedness
- nausea
- chest pain
- blurred vision
- limb pain

Discussion

22.1.11 Identify the importance of warm-up and cool-down during a physical conditioning program.

Discussion

22.1.12 Explain the difference between static stretching and dynamic stretching and the appropriate applications for each type of stretching.

Discussion

Module 22.2 **CONDITIONING EXERCISES**

(Please refer to Section F for Schedules, Diagrams, Pictures and Descriptions of Exercises.)

Module 22.3 **INITIAL ASSESSMENT**
Instructional Time: 30 minutes

INSTRUCTIONAL OBJECTIVES:

22.3.1 Practice the following two Behavior Skills Tests as described. *Do not practice the dummy drag or 50 yard sprint until later in the course.*

- Weighted Carry: Demonstrate ability to walk a total distance of 75 feet (three 25-foot laps) within 30 seconds wearing a 30 pound air pack or backpack.

- Stair Climb: On a flat course starting 15 yards back from a flight of stairs or bleacher steps, walk or jog the 15 yards, climb up 10 steps, then turn, climb back down the steps, and walk briskly or jog back to the starting point within 30 seconds.

Module 22.4 **FINAL ASSESSMENT AND FITNESS PLANNING**
Instructional Time: 1 hour

INSTRUCTIONAL OBJECTIVES:

22.4.1 On a straight track, complete a 50-yard sprint within 20 seconds.

Behavior Skill Test #35

Drag a 165-pound bag or dummy for a distance of 20 feet within 30 seconds.

Behavior Skill Test #36

Demonstrate ability to walk a total distance of 75 feet (three 25-foot laps) within 30 seconds wearing a 30 pound air pack or backpack.

Behavior Skill Test #37

On a flat course starting 15 yards back from a flight of stairs or bleacher steps, walk or jog the 15 yards, climb up 10 steps, then turn, climb back down the steps, and walk briskly or jog back to the starting point within 30 seconds.

Behavior Skill Test #38

These tests are to be evaluated on a pass/fail basis.

22.4.2 In pairs or small groups of trainees, exchange ideas and goals for on-going, performance-based fitness plans at the conclusion of training, such as the following:

- How many days per week can you schedule exercise?
- How much time per session can you exercise?
- Name 3 Lower Body strength or Plyometric exercises you plan to do.
- Name 3 Upper Body strength or Plyometric exercises you plan to do.
- Name a form of cardiovascular exercise you plan to do.
- What would keep you from adhering to this program?
- Name 3 ways to eliminate roadblocks to adhering to this program.

During class, trainees are to write up goals and plans using a structured work sheet or other suitable format.

Discussion and Report Out to Class

SECTION F. SCHEDULES AND DIAGRAMS

WEEKLY/DAILY EXERCISE SCHEDULES

Focus	Exercise	Week 1	Week 2	Week 3	Week 4	Week 5
		Days 1,3,5	Days 6,8,10	Days 11 + 15	Days 18 + 20	Day 21
Warm-Up	Brisk Walk	10 m RPE 11-13	xxxxx	xxxxx	xxxxx	xxxxx
	DT Footwork	xxxxx	10 min	10 min	10 min	10 min
Dynamic	Arm Circles	10 ea way	10 ea way	10 ea way	10 ea way	10 ea way
Stretching	Side Bends	10 ea way	10 ea way	10 ea way	10 ea way	10 ea way
	Windmills	10 touches	10 touches	10 touches	10 touches	10 touches
	Trunk Twists	10 ea way	10 ea way	10 ea way	10 ea way	10 ea way
	High Knees	xxxxx	10 ea leg	10 ea leg	10 ea leg	10 ea leg
	Butt Kicks	xxxxx	10 ea leg	10 ea leg	10 ea leg	10 ea leg
Low	Side Leg Raises	8 each leg	8 each leg	8 each leg	8 each leg	xxxxx
Intensity	Push-ups	10 or RPE 15	12 or RPE 15	14 or RPE 15	20 or RPE 15	xxxxx
Strength	Stomach Cr/Sit-ups	20 reps	30 reps	40 reps	50 reps	xxxxx
	Grip squeezes	10 reps or RPE 15	14 reps or RPE 15	18 reps or RPE 15	22 reps or RPE 15	xxxxx
Core	Prone Planks	3x20 sec/Rest 20 sec	3x25 sec/Rest 25 sec	3x30 sec/Rest 30 sec	3x 1 min/Rest 30 sec	xxxxx
Strength	R. Hover Planks	3x20 sec/Rest 20 sec	3x25 sec/Rest 25 sec	3x30 sec/Rest 30 sec	3x 1 min/Rest 30 sec	xxxxx
	L. Hover Planks	3x20 sec/Rest 20 sec	3x25 sec/Rest 25 sec	3x30 sec/Rest 30 sec	3x 1 min/Rest 30 sec	xxxxx
	Stomach Flutter Kicks	1x7 reps	2x7 reps	3x7 reps	4x7 reps	xxxxx
Low Intensity	Skipping	2x10/Rest 30 sec	2x10/Rest 20 sec	2x10/Rest 10 sec	xxxxx	xxxxx
Plyometrics	Skip for Height	2x10/Rest 1 min	2x15/Rest 1 min	2x20/Rest 1 min	2x25/Rest 1 min	xxxxx
Lower Body	Two Foot Hops	1x10	xxxxx	xxxxx	xxxxx	xxxxx
Plyometrics	Single Foot S-S Hops	1x10	1x15	xxxxx	xxxxx	xxxxx
	Two Foot S-S Hops	1x10	1x15	xxxxx	xxxxx	xxxxx
	Standing Long Jumps	xxxxx	1x15	xxxxx	xxxxx	xxxxx
	Standing Jump /Reach	xxxxx	1x15	xxxxx	xxxxx	xxxxx
	Jumps Over Barrier	xxxxx	1x15	xxxxx	xxxxx	xxxxx
	Hexagon Drill	xxxxx	xxxxx	2 drills (36 touches)	xxxxx	xxxxx
	Multi-Jumps for Ht	xxxxx	xxxxx	2x10 jumps (1 m Rest)	xxxxx	xxxxx
	Plyo Circuits	xxxxx	1 x Plyo Circuit	4 x Plyo Circuits	8 x Plyo Circuits	xxxxx
Upper Body	Wheel Barrow	xxxxx	3x20 steps	3x25 steps	3x25 steps	xxxxx
Plyometrics	**or** Overhead Throw	xxxxx	3x20 throws	3x25 throws	3x25 throws	xxxxx
	or Single Arm Throw	xxxxx	3x20 throws	3x25 throws	3x25 throws	xxxxx
	Explosive Wall Push-up	xxxxx	3x15 reps	3x20 reps	3x20 reps	xxxxx
	or Chest Pass	xxxxx	3x15 reps	3x20 reps	3x20 reps	xxxxx
	or Chest Push	xxxxx	3x15 reps	3x20 reps	3x20 reps	xxxxx
	Push-up Jump	xxxxx	xxxxx	1x10 reps	1x10 reps	xxxxx
	or Heavy Bag Thrust	xxxxx	xxxxx	1x10 reps	1x10 reps	xxxxx
	or Heavy Bag Stroke	xxxxx	xxxxx	1x10 reps	1x10 reps	xxxxx
	or Catch&Throw	xxxxx	xxxxx	1x10 reps	1x10 reps	xxxxx
Cardio	Jog/Walk	30 min @ RPE 11-13	25 min @ RPE 13	15 min @ RPE 15	xxxxx	xxxxx
Cool Down	Walk	10 min @ RPE 9	10 min @ RPE 9	10 min @ RPE 9	10 min @ RPE 9	xxxxx
Static	Calf Stretch	3x10 sec, Rest 10 sec	3x20 sec/Rest 20 sec	3x30 sec/Rest 30 sec	3x30 sec/Rest 30 sec	xxxxx
Stretching	Quad Stretch	3x10 sec, Rest 10 sec	3x20 sec/Rest 20 sec	3x30 sec/Rest 30 sec	3x30 sec/Rest 30 sec	xxxxx
	Hamstring Stretch	3x10 sec, Rest 10 sec	3x20 sec/Rest 20 sec	3x30 sec/Rest 30 sec	3x30 sec/Rest 30 sec	xxxxx
	Knee Hugs	3x10 sec, Rest 10 sec	3x20 sec/Rest 20 sec	3x30 sec/Rest 30 sec	3x30 sec/Rest 30 sec	xxxxx
	Stride Stretch	3x10 sec, Rest 10 sec	3x20 sec/Rest 20 sec	3x30 sec/Rest 30 sec	3x30 sec/Rest 30 sec	xxxxx

Week 1

Days 1, 3, 5

Focus	**Exercise**	**Reps/Time**
Warm-Up	Brisk Walk	10 m RPE 11-13
Dynamic Stretching	Arm Circles	10 ea way
	Side Bends	10 ea way
	Windmills	10 touches
	Trunk Twists	10 ea way
Low Intensity Strength	Side Leg Raises	8 each leg
	Push-ups	10 or RPE 15
	Stomach Cr/Sit-ups	20 reps
	Grip squeezes	10 reps or RPE 15
Core Strength	Prone Planks	3x20 sec/Rest 20 sec
	R. Hover Planks	3x20 sec/Rest 20 sec
	L. Hover Planks	3x20 sec/Rest 20 sec
	Stomach Flutter Kicks	1x7 reps
Low Intensity Plyometrics	Skipping	2x10/Rest 30 sec
	Skip for Height	2x10/Rest 1 min
Lower Body Plyometrics	Two Foot Hops	1x10
	Single Foot S-S Hops	1x10
	Two Foot S-S Hops	1x10
Cardio	Jog/Walk	30 min @ RPE 11-13
Cool Down	Walk	10 min @ RPE 9
Static Stretching	Calf Stretch	3x10 sec, Rest 10 sec
	Quad Stretch	3x10 sec, Rest 10 sec
	Hamstring Stretch	3x10 sec, Rest 10 sec
	Knee Hugs	3x10 sec, Rest 10 sec
	Stride Stretch	3x10 sec, Rest 10 sec

Week 2

Days 6, 8, 10

Focus	**Exercise**	**Reps/Time**
Warm-Up	DT Footwork	10 min
Dynamic Stretching	Arm Circles	10 ea way
	Side Bends	10 ea way
	Windmills	10 touches
	Trunk Twists	10 ea way
	High Knees	10 ea leg
	Butt Kicks	10 ea leg
Low Intensity Strength	Side Leg Raises	8 each leg
	Push-ups	12 or RPE 15
	Stomach Cr/Sit-ups	30 reps
	Grip squeezes	14 reps or RPE 15
Core Strength	Prone Planks	3x25 sec/Rest 25 sec
	R. Hover Planks	3x25 sec/Rest 25 sec
	L. Hover Planks	3x25 sec/Rest 25 sec
	Stomach Flutter Kicks	2x7 reps
Low Intensity Plyometrics	Skipping	2x10/Rest 20 sec
	Skip for Height	2x15/Rest 1 min
Lower Body Plyometrics	Single Foot S-S Hops	1x15
	Two Foot S-S Hops	1x15
	Standing Long Jumps	1x15
	Standing Jump/Reach	1x15
	Jumps Over Barrier	1x15
	Plyo Circuits	1 x Plyo Circuit
Upper Body Plyometrics	Wheel Barrow	3x20 steps
	or Overhead Throw	3x20 throws
	or Single Arm Throw	3x20 throws
	Explosive Wall Push-up	3x15 reps
	or Chest Pass	3x15 reps
	or Chest Push	3x15 reps
Cardio	Jog/Walk	25 min @ RPE 13
Cool Down	Walk	10 min @ RPE 9
Static Stretching	Calf Stretch	3x20 sec/Rest 20 sec
	Quad Stretch	3x20 sec/Rest 20 sec
	Hamstring Stretch	3x20 sec/Rest 20 sec
	Knee Hugs	3x20 sec/Rest 20 sec
	Stride Stretch	3x20 sec/Rest 20 sec

Week 3

Days 11 & 15

Focus	**Exercise**	**Reps/Time**
Warm-Up	DT Footwork	10 min
Dynamic Stretching	Arm Circles	10 ea way
	Side Bends	10 ea way
	Windmills	10 touches
	Trunk Twists	10 ea way
	High Knees	10 ea leg
	Butt Kicks	10 ea leg
Low Intensity Strength	Side Leg Raises	8 each leg
	Push-ups	14 or RPE 15
	Stomach Cr/Sit-ups	40 reps
	Grip squeezes	18 reps or RPE 15
Core Strength	Prone Planks	3x30 sec/Rest 30 sec
	R. Hover Planks	3x30 sec/Rest 30 sec
	L. Hover Planks	3x30 sec/Rest 30 sec
	Stomach Flutter Kicks	3x7 reps
Low Intensity Plyometrics	Skipping	2x10/Rest 10 sec
	Skip for Height	2x20/Rest 1 min
Lower Body Plyometrics	Hexagon Drill	2 drills (36 touches)
	Multi-Jumps for Ht	2x10 jumps (1 m Rest)
	Plyo Circuits	4 x Plyo Circuits
Upper Body Plyometrics	Wheel Barrow	3x25 steps
	or Overhead Throw	3x25 throws
	or Single Arm Throw	3x25 throws
	Explosive Wall Push-up	3x20 reps
	or Chest Pass	3x20 reps
	or Chest Push	3x20 reps
	Push-up Jump	1x10 reps
	or Heavy Bag Thrust	1x10 reps
	or Heavy Bag Stroke	1x10 reps
	or Catch&Throw	1x10 reps
Cardio	Jog/Walk	15 min @ RPE 15
Cool Down	Walk	10 min @ RPE 9
Static Stretching	Calf Stretch	3x30 sec/Rest 30 sec
	Quad Stretch	3x30 sec/Rest 30 sec
	Hamstring Stretch	3x30 sec/Rest 30 sec
	Knee Hugs	3x30 sec/Rest 30 sec
	Stride Stretch	3x30 sec/Rest 30 sec

Week 4

Days 18 & 20

Focus	**Exercise**	**Reps/Time**
Warm-Up	DT Footwork	10 min
Dynamic Stretching	Arm Circles	10 ea way
	Side Bends	10 ea way
	Windmills	10 touches
	Trunk Twists	10 ea way
	High Knees	10 ea leg
	Butt Kicks	10 ea leg
Low Intensity Strength	Side Leg Raises	8 each leg
	Push-ups	20 or RPE 15
	Stomach Cr/Sit-ups	50 reps
	Grip squeezes	22 reps or RPE 15
Core Strength	Prone Planks	3x 1 min/Rest 30 sec
	R. Hover Planks	3x 1 min/Rest 30 sec
	L. Hover Planks	3x 1 min/Rest 30 sec
	Stomach Flutter Kicks	4x7 reps
Low Intensity Plyometrics	Skip for Height	2x25/Rest 1 min
Lower Body Plyometrics	Plyo Circuits	8 x Plyo Circuits
Upper Body Plyometrics	Wheel Barrow	3x25 steps
	or Overhead Throw	3x25 throws
	or Single Arm Throw	3x25 throws
	Explosive Wall Push-up	3x20 reps
	or Chest Pass	3x20 reps
	or Chest Push	3x20 reps
	Push-up Jump	1x10 reps
	or Heavy Bag Thrust	1x10 reps
	or Heavy Bag Stroke	1x10 reps
	or Catch &Throw	1x10 reps
Cool Down	Walk	10 min @ RPE 9
Static Stretching	Calf Stretch	3x30 sec/Rest 30 sec
	Quad Stretch	3x30 sec/Rest 30 sec
	Hamstring Stretch	3x30 sec/Rest 30 sec
	Knee Hugs	3x30 sec/Rest 30 sec
	Stride Stretch	3x30 sec/Rest 30 sec

Week 5

Day 21

Focus	**Exercise**	**Reps/time**
Warm-Up	DT Footwork	10 min
Dynamic Stretching	Arm Circles	10 ea way
	Side Bends	10 ea way
	Windmills	10 touches
	Trunk Twists	10 ea way
	High Knees	10 ea leg
	Butt Kicks	10 ea leg

PLYOMETRIC CIRCUITS

Choose one of the following three circuits. See diagrams on following pages. Take 5-minute rests between circuits.

Circuit I.

- 3 Two Footed Hops
- fast Jog or Run for 25 to 75 yards
- 3 Single Foot Side to Side Hop
- fast Jog or Run for 25 to 75 yards
- 3 Standing Long Jumps
- fast Jog or Run for 25 to 75 yards
- 3 Two Footed Side-to-side Hops
- Six 25 to 75 yard Sprints; walk back to start between each sprint

Or,

Circuit II.

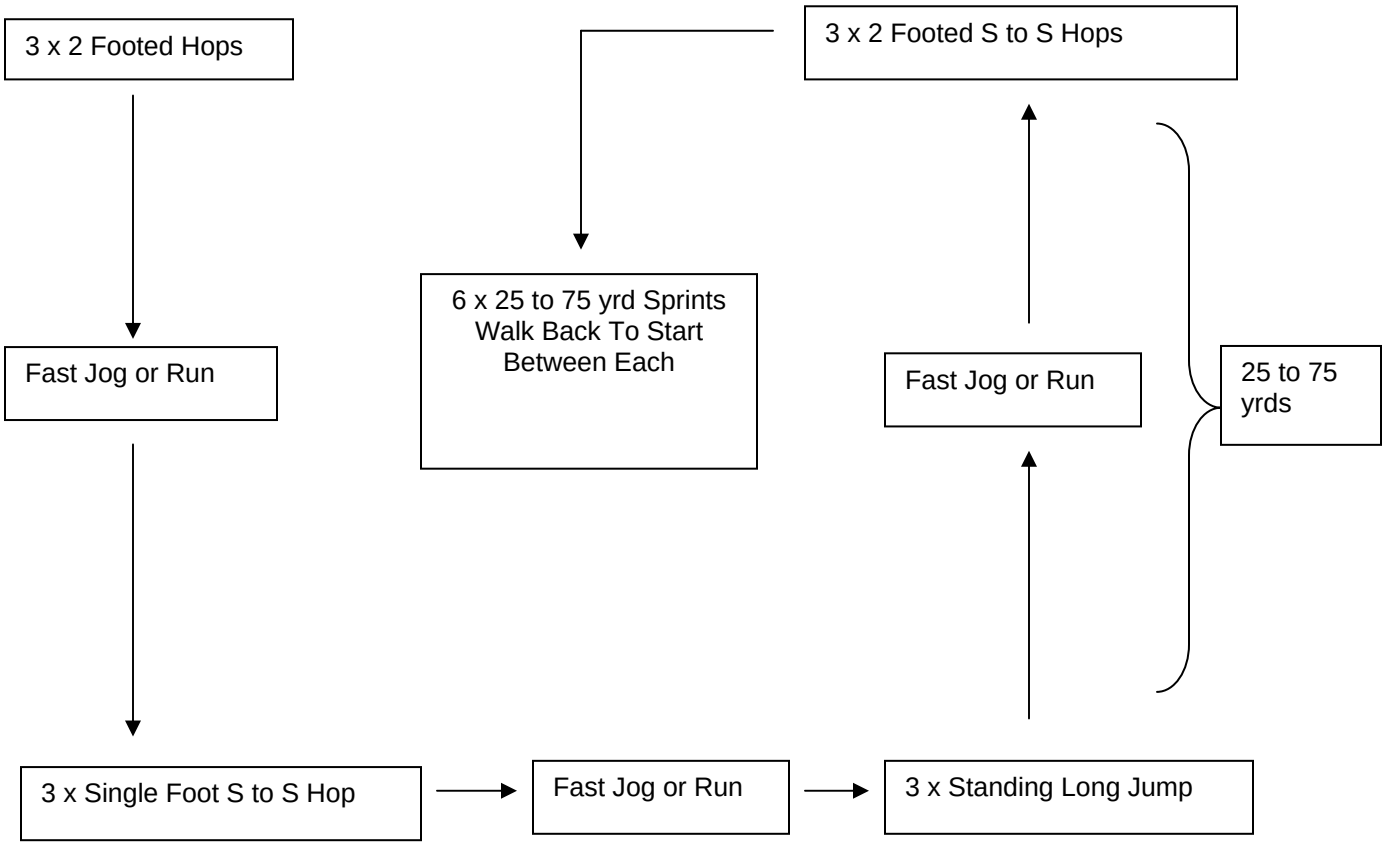
- 3 Two Footed Hops
- fast Jog or Run for 25 to 75 yards
- 3 Single Foot Side-to-side Hops
- fast Jog or Run for 25 to 75 yards
- 3 Jump Over Barriers
- fast Jog or Run for 25 to 75 yards
- 3 Two Footed Side-to-side Hops
- Six 25 to 75 yard Sprints; walk back to start between each sprint

Or,

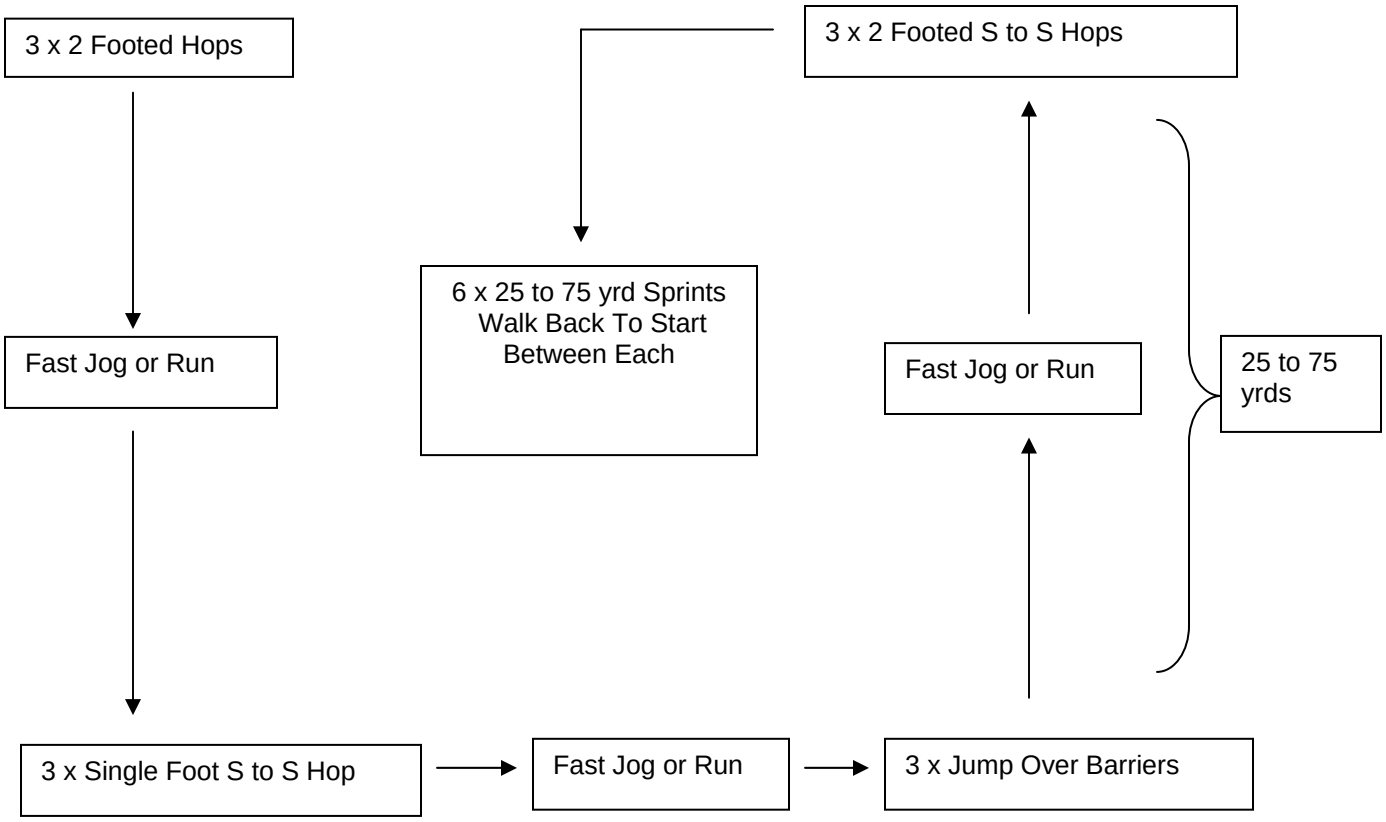
Circuit III.

- 3 Two Footed Hops
- fast Jog or Run for 25 to 75 yards
- 3 Standing Long Jumps
- fast Jog or Run for 25 to 75 yards
- 3 Skips for Height
- fast Jog or Run for 25 to 75 yards
- 3 Single Foot Side-to-side Hops
- Six 25 to 75 yard Sprints; walk back to start between each sprint

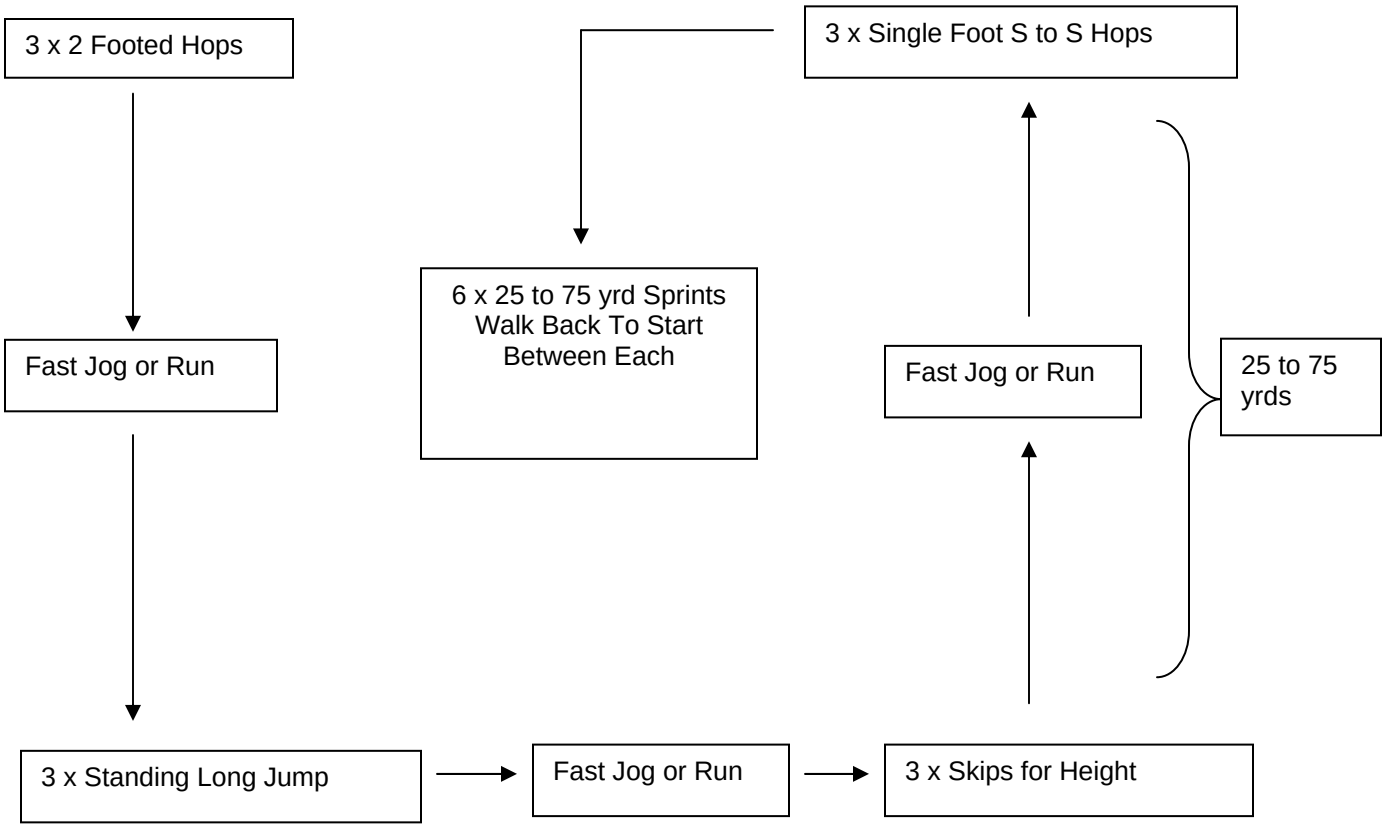
Plyo Circuit I



Plyo Circuit II



Plyo Circuit III

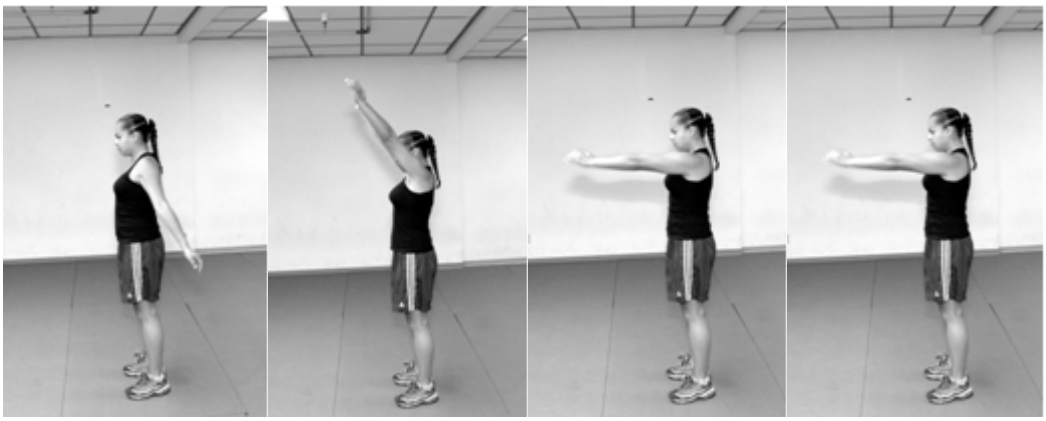


PICTURES AND DESCRIPTIONS

DYNAMIC STRETCHING

Arm Circles

Standing with arms out, slowly move hands in a circle, gradually increasing the size of the circle. Increase to full arm circles for recommended number of complete circles. Repeat in opposite direction.



Side Bends

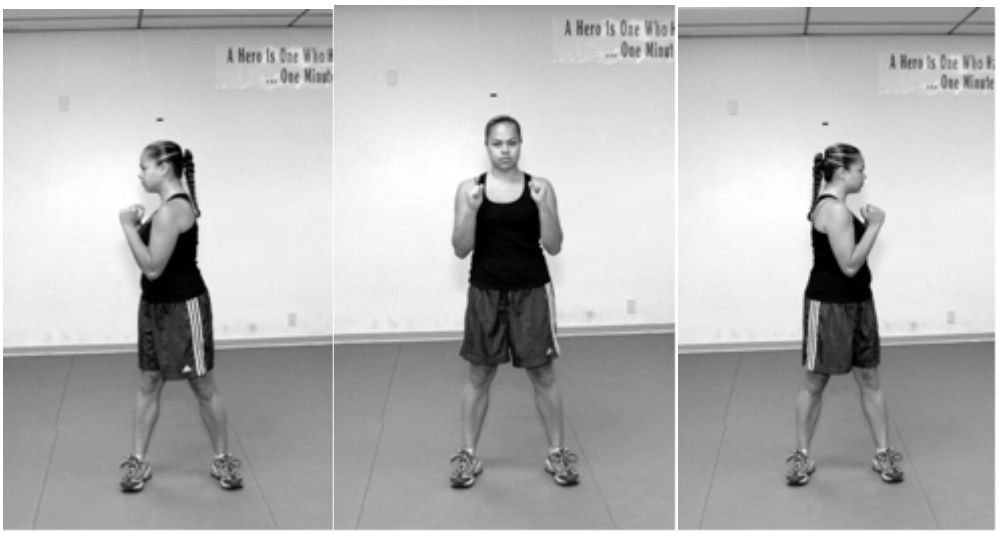
With feet more than shoulder width apart, bend sideways as far as possible. Return to upright position then bend sideways to the other side.

Windmills

Stand erect, feet shoulder width apart, arms out to the side. Keeping the legs straight, bring right hand across the body reaching for the left foot. Return to starting position and reach for right foot with the left hand. Repeat for recommended repetitions.

Trunk Twists

Standing, twist gently from right to left and reverse. Hands can be outstretched or in front with elbows bent.



High Knees

Jog in place with an exaggerated raising of the knee as high as possible without losing balance.

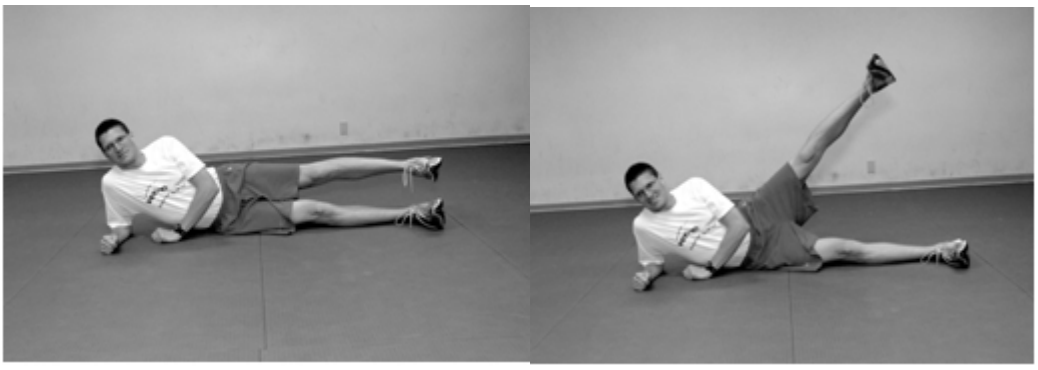
Butt Kicks

Jog in place with an exaggerated back kicking of the foot so that the heel comes as close to the butt as possible without losing balance.

LOW INTENSITY STRENGTH EXERCISES

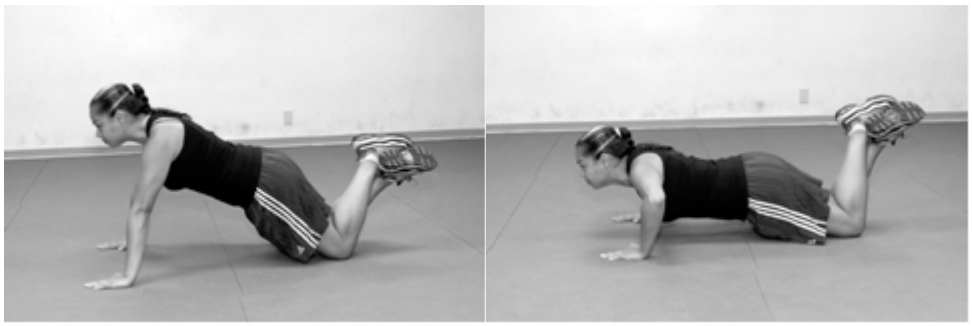
Side Leg Raises

While on the side with legs straight, slowly raise the top leg 18” and return. After recommended number of leg raises, roll to the opposite side and repeat with the other leg.



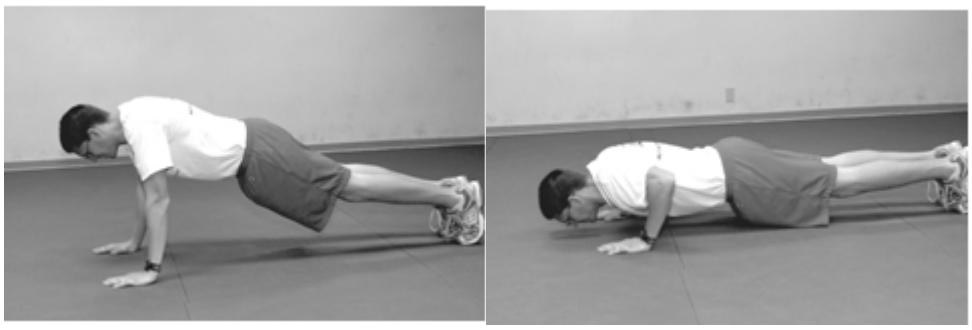
Push-ups (modified)

On the stomach with body straight from shoulder to knees and hands beside the shoulders, push the body upward until arms are straight. Bend arms to lower body back to the starting position. In the modified movement, weight is supported at the knees.



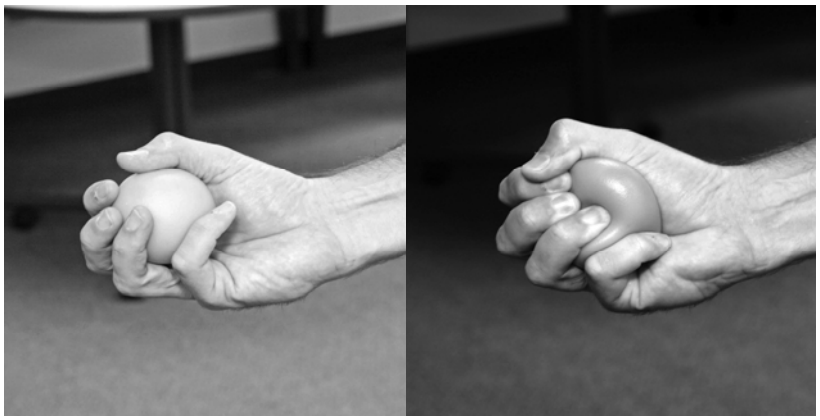
Push-ups (military)

On the stomach with body straight from the shoulders to the toes, hands beside the shoulders, push the body upward until arms are straight. Bend arms to lower the body back to the starting position.



Grip Squeeze

Using a small, flexible ball such as a racket ball, place the ball in the palm of the hand and squeeze it as hard as possible then relax the hand for 1 to 2 seconds and repeat for the recommended number of repetitions or to fatigue.



CORE STRENGTH EXERCISES

Sit-ups or Stomach Crunches

Start on the back, knees bent at a 90-degree angle with hands in front of or behind the head. Raise the head and upper part of the body, curling or crunching up from the waist.

Prone Planks

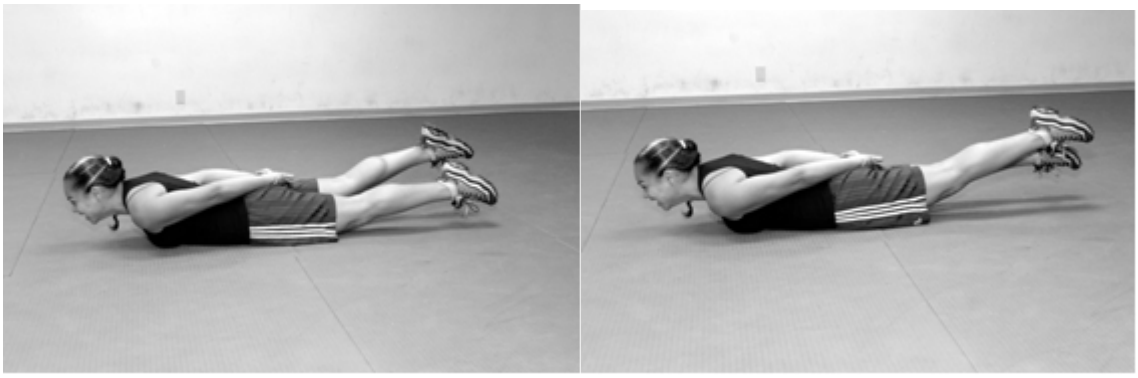
Start in the prone position and prop the body up onto the toes and forearms. Hold this position with the body maintaining a flat back and rigid position for the recommended amount of time.

Right & Left Side Hover

Lying on the side, elevate the body off of the ground so that it is supported by the side of the foot and the elbow. Maintain the body in a straight, rigid position for the recommended amount of time.

Stomach Flutter Kicks

Lie on stomach. Keeping the legs straight, flutter feet alternately for recommended number of reps. Hands may be on top of buttocks or under thighs.



LOW INTENSITY PLYOMETRIC EXERCISES

Skipping

Begin in the standing position and skip from right to left foot. A strenuous effort is not required when completing these. Be sure to follow the recommended number of touches and recovery duration.

Skipping-for-Height

Complete skipping from right to left foot as described above. Be sure to use an exaggerated arm movement and try to come as far off of the ground as possible. Be sure to follow the recommended number of touches and the recovery duration.

LOWER BODY PLYOMETRIC EXERCISES

Two-Foot Hops

Start in the standing position, flex the knee slightly and hop into the air. Hopping should be done in place. Continue hopping in place for the recommended number of hops in the set.

Single Foot Side-to-Side Hop

Begin by standing on one foot and flex the knee slightly hopping to the side landing on the opposite foot. After landing on the opposite side, flex the knee and hop back to the other side. Continue hoping back and forth for the recommended number in the set. Distance between hops should be about three feet.

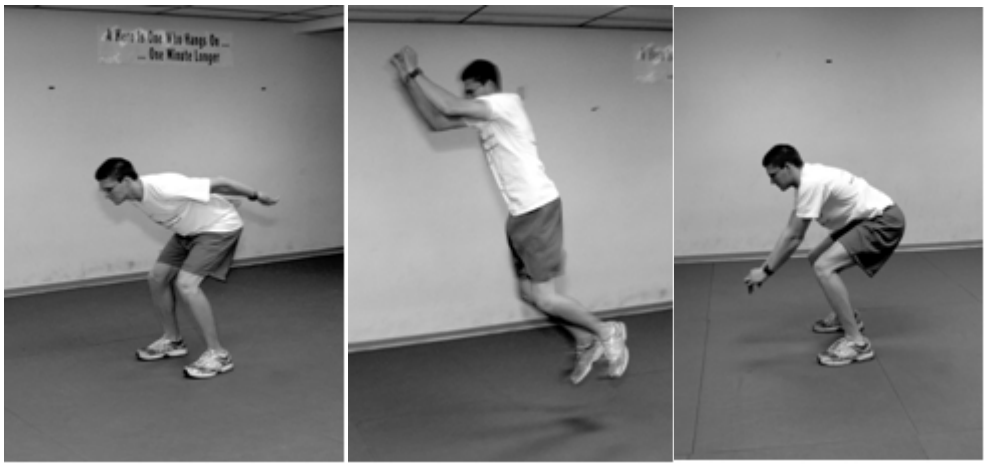
Two Foot Side-to-Side Hop

Start in the standing position with the feet approximately shoulder width apart. Flex the knee slightly and hop to the side. After landing on the opposite side, again flex the knee and hop to other side. Continue hopping from side to side for the recommended number in the set. Maintain feet at approximately shoulders width apart. Distance between hops should be about two feet.

(no picture)

Standing Long Jumps

Start in the standing position and flex the knees deeply while swinging the arms back. Now jump forward as far as possible. Repeat this action for the recommended number of repetitions in the set. A soft landing area (padding or sand) is highly recommended for this exercise. If none is available then the exercise may need to be avoided.



Standing Jump/Reach

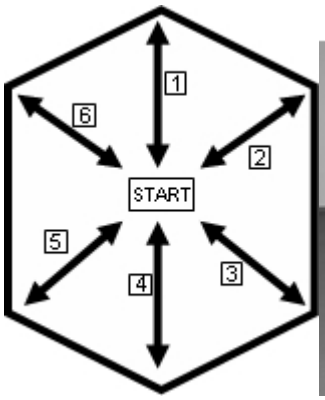
Start in the standing position with feet shoulders width apart. Flex the knees and jump into the air as high as possible. Raise the arms above the head as if trying to reach for something in the air. Repeat this exercise for the recommended number of repetitions in the set.

Standing Jump Over Barrier

Start in the standing position with feet approximately shoulder width apart. Flex the knees and jump up and forward over a barrier (cone or small cross rail). The barrier should not exceed one and a half feet in height. If no barrier is available then jump over an imaginary barrier.

Hexagon Drill

Begin by standing with approximately six feet of space around each person. Next envision standing in the middle of a clock face. Now flex the knee and jump forward to the 12 o'clock position and then jump back to the starting position. Repeat this exercise jumping to the 2, 4, 6, 8, and 10 o'clock positions. Hexagon drill pattern: Distance between start and each jump can vary based on fitness and body size, but should be far enough out to provide reasonable effort. Also order of the jumps can be varied so long as all of the jumps are consecutive.



Multi Jumps for Height

Begin standing in place. Next flex the knees and jump into the air as high as possible. As soon as landing, flex the knees and jump into air again as high as possible. Repeat for the recommended number of repetitions.

(no picture)

UPPER BODY PLYOMETRIC EXERCISES

Wheelbarrow

Begin in the push-up position. Have a partner pick up the persons feet, while they remain supported by their arms. Now both partners will walk forward for the recommended number of steps.

*Note: It is a good idea to match partners based on body size to avoid injury.

Alternative to Wheelbarrow: Overhead throw w/med ball or basketball

Begin in the standing position and raise the ball over head. Next throw the ball over the head toward a partner. The partner will catch the ball and now perform the same motion. Partners will pass the ball back and forth until the recommended number of repetitions is completed.

Alternative to Wheelbarrow: Supine single arm overhead throw w/med ball or basketball

Begin by lying on the ground with one arm extended overhead with the ball in hand. Throw the ball forward and begin flexing the trunk upward similar to a stomach curl. Finish in a stomach curl position. Repeat the recommended number of repetitions.

Explosive Wall Push-Ups

Begin standing on the floor facing a wall. Lean forward into the wall with arms extended (similar to the push-up position). Flex the elbows and lower the body toward the wall. Now rapidly contract the arms with enough force to push off of the wall. Fall back into the wall and repeat the motion for the number of recommended repetitions.

Alternative to Explosive Wall Push-Up: Chest pass w/med ball or basketball

Begin in either the standing or kneeling position. Holding the ball in two hands, bring the ball to the chest and push out, passing the ball to a partner. The partner should be ready to receive the pass with their arms extended out in front of them. As the partner receives the pass they should slow the ball down as they bring it to their chest and then immediately pass the ball back to the opposing partner. Pass the ball back and forth until the recommended number of repetitions has been completed.

Alternative to Explosive Wall Push-Up: Chest push w/med ball or basketball

Begin on the knees holding ball close to the chest as if a chest pass was going to be completed. Next crouch down. From the crouch position explode outward staying on the knees and throw the ball as far as possible or to a partner. Have the partner return the ball and repeat for the recommended number of repetitions.

Push-Up Jump

Begin in the push-up position on the floor. Lower the body to the floor. Now explosively contract the arms with enough force to push off the ground. Now land on the floor and lower the body back to ground and repeat for the recommended number of repetitions. Rest 2 seconds between each push-up.

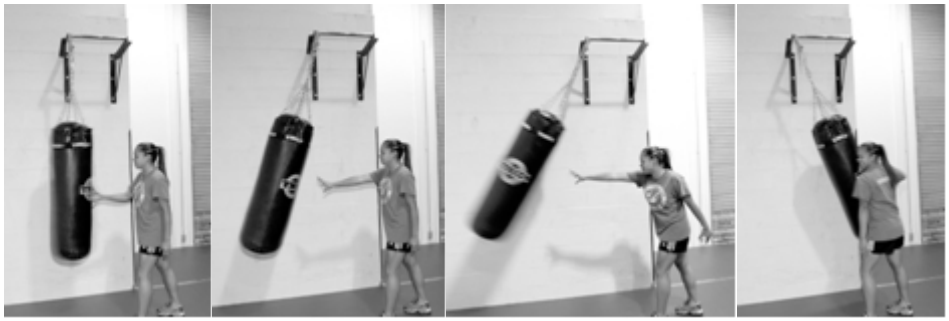
(no picture)

Alternative to Push-Up Jump: Heavy bag thrust

Begin by standing next to a suspended heavy bag with right shoulder lined up with the bag. Move the right foot back while the left foot stays next to the heavy bag for stability. Place the right hand on the heavy bag and use the arm and torso to push the bag forward. As the bag comes swinging back, have the exerciser and a partner slow the bag down and then repeat for the recommended number repetitions.

Alternative to Push-Up Jump: Heavy bag stroke (Advanced)

Follow the same procedure for the heavy bag thrust, however, when the heavy bag comes swinging back have exerciser catch the bag and begin to slow it down. As the bag swings back even with the body, immediately push it forward with an explosive motion. Repeat this sequence for the recommended number of repetitions



Alternative to Push-Up Jump: Catch and Overhead Throw w/med ball (Advanced)

Begin in the standing position with feet shoulder width apart and arms extended out and slightly over head. Have a partner pass the ball. Catch the ball overhead and pass it back to the partner. Repeat until the recommended number of repetitions has been completed.

*Note: If a partner is not available, exerciser may throw ball against a wall and catch the rebounding ball.

COOL DOWN AND STATIC STRETCHING

Cool Down

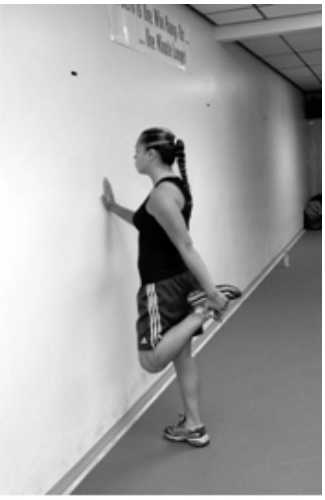
Always first include light intensity exercise such as walking during the Cool Down to slowly reduce heart rate. Follow the light exercise with static stretching. Static stretching should only be included following exercise because of the stretch induced force deficit.

Calf Stretch

Facing the wall, put feet together about 36” from the wall, and place hands on the wall. Keep feet flat on the floor and knees straight.

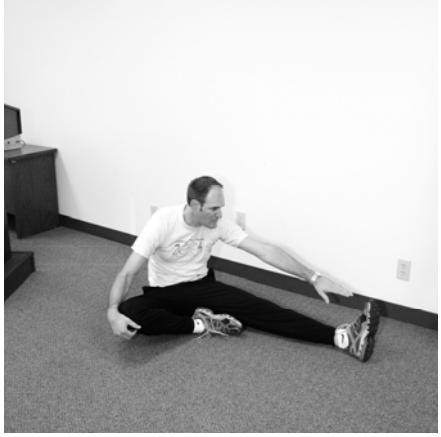
Quad Stretch

While standing and supporting the body with one hand on a wall or other support, grab the ankle and arch the back. Pull up on the ankle until adequate stretch is felt in the front thigh.



Hamstring Stretch

Begin in the seated position with one leg extended in front of the body and the other leg folded inward. Lean forward trying to touch the toe of the extended with the hand.



Knee Hugs

Lying on back, slowly raise knee to chest, grasp knee with both hands, and pull to the chest. Keep opposite leg straight. Hold leg for prescribed seconds. Rest for prescribed seconds. Follow same procedure with other leg, again keeping opposite leg straight.

Stride Stretches

Start in a push-up position with one knee tucked forward to chest level and the other leg extended. Alternate forward and extend legs.

DESCRIPTION OF THE FOUR (4) BEHAVIOR SKILLS TESTS

BST #35 Sprint

On a straight track, sprint 50 yards within 20 seconds.

(no picture)

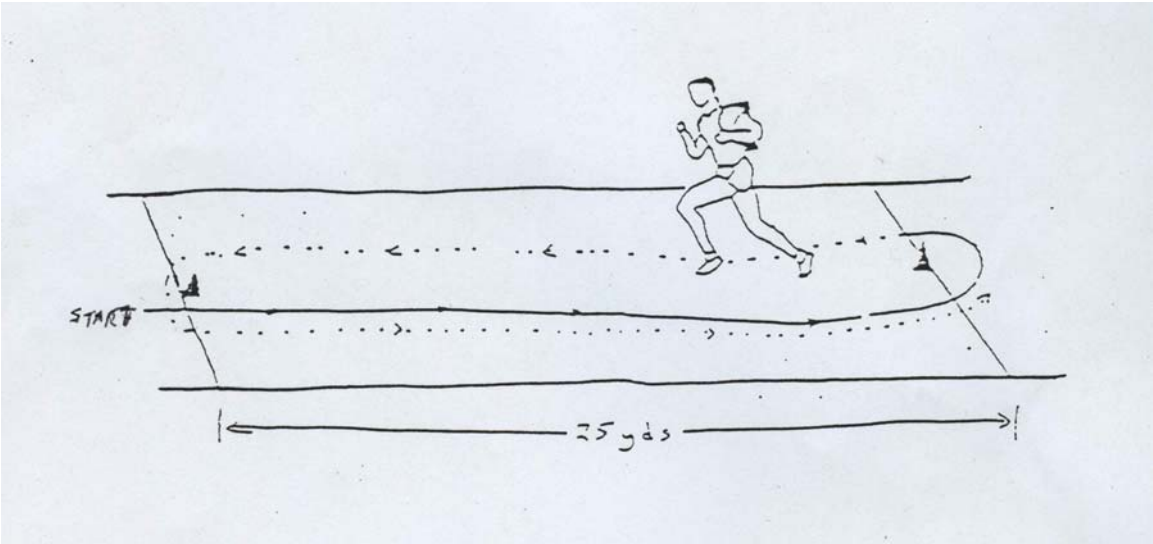
BST #36 Dummy drag

Drag a 165-pound bag or dummy for a distance of 20 feet within 30 seconds.

Wrap arms around the dummy under the arms. Extend the legs while maintaining a straight back. Now walk backward with the dummy elevated to not interfere with the knees until the required distance is completed.

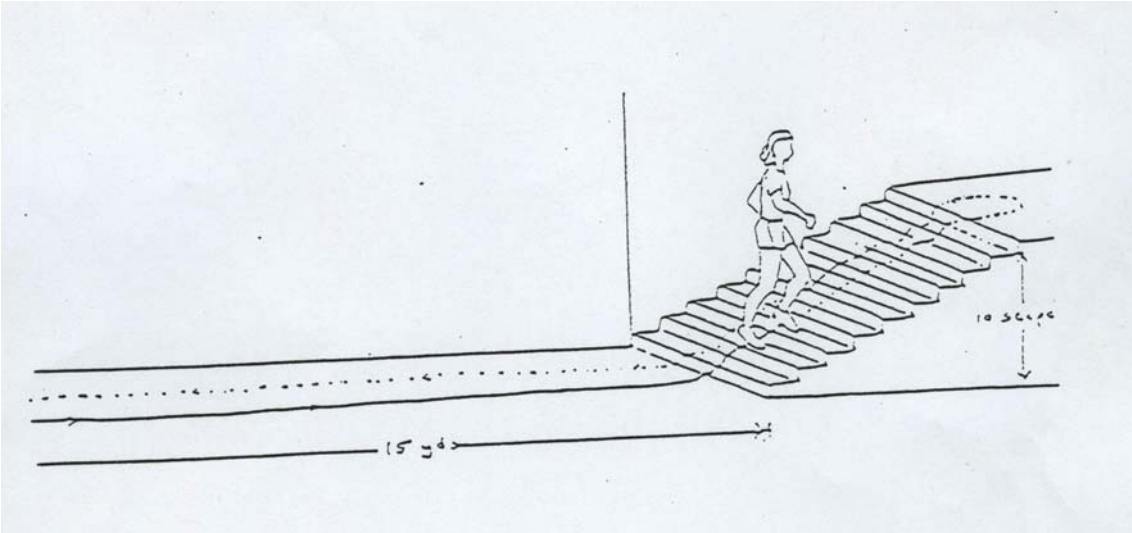
BST # 37 Weighted carry

Wearing a 30-pound air pack or backpack, walk a total distance of at least 75 feet (three 25-foot laps) within 30 seconds. This corresponds to a pace equivalent to at least a moderate walk.



BST #38 Stair Climb

On a flat course starting 15 yards back from a flight of stairs or bleacher steps, walk briskly or jog the 15 yards, climb up 10 steps, then turn, climb back down the steps, and walk briskly or jog back to the starting point within 30 seconds.



APPENDICES

Appendix A. Test Report Form

Test Report Form
Adult Corrections Officer
Physical Tasks Testing

Training Course Date (mo / year): _____

STC Certification #:_____

Provider:_____

Instructor Name:_____

Date Officially Observed to Meet/Exceed Benchmark Minimum Performance Level. Note: Only record as *Pass, Fail,* or *Not Administered*.

Trainee Name	BST#35 50Yard Sprint	BST#36 Dummy Drag	BST #37 Weighted Carry	BST#38 Stair Climb

Appendix B. Training Provider and Instructor Resources

165 Pound Dummies

Simulaids, Inc.
800-431-4310
P.O. Box 807
Woodstock, NY 12498
www.simulaids.com

Dixie EMS Supply
800-347-3494
www.dixieems.com

Health Metrics, Inc.
509-628-0215
West Richland, WA 99353

www.healthmetrics-inc.com

Exercise Equipment

Power Systems, Inc
800-321-6975
www.power-systems.com

Perform Better
800-556-7464
P.O. Box 8090
Cranston, RI 02920-0090
www.performbetter.com

Instructor Training Programs

American College of Sports Medicine
(ACSM)
800-486-5643
www.acsm.org

National Strength and Conditioning Assoc. (NSCA)
888-746-2378
www.nsca-lift.org

American Council on Exercise
(ACE)
800-825-3636
www.acefitness.org

International Sports Sciences Assoc.
(ISSA)
800-892-4772
www.TheISSA.com

National Academy of Sports Medicine
(NASM)
800-656-2739
www.nasm.org

Technical Assistance

STC Program
Train-the-trainer Instruction
Contact Core Manager
916-445-5073
www.cdcr.ca.gov/Divisions_Boards/CSA

Suggested Reading

Getting Stronger
Bill Pearl

Guidelines for Exercise Testing and Prescription,

7th Edition, American College of Sports Medicine

Appendix C. References

American College of Sports Medicine. Guidelines for exercise testing and prescription. 7th Edition. Lippincott Williams and Wilkins, Philadelphia, 2006.

Benke, R et al. Energetics of karate kumite. Eur. J. Appl. Physiol. 92(4-5): 518-23, 2004.

Chu, Donald A, Jumping Into Plyometrics, Second Edition, Human Kinetics, Champaign, IL, 1-7, 1998.

Francescato, MP et al. Energy cost and energy sources in karate. Eur. J. Appl. Physiol. 71(4):355-61, 1995.

Heller, J. Energy cost and cardiorespiratory demands of nunchaku exercise. J. Sports Med Phys Fitness. 40(3): 217-22, 2000

Ingraham, SJ The role of flexibility in injury prevention and athletic performance: have we stretched the truth? Minn Med. 86(5): 58-61, 2003.

Pope, RP et al. A randomized trial of preexercise stretching for prevention of lower-limb injury. Med. Sci. Sports Exerc. 32(2): 271-7, 2000.

Sherry, MA and Best, TM. A comparison of 2 rehabilitation programs in the treatment of acute hamstring strains. J. Orthop Sports Phys Ther. 34(3): 116-25, 2004.

Thelen, DG et al. Neuromusculoskeletal models provide insights into the mechanisms and rehabilitation of hamstring strains. Ex. Sport Sci. Rev. 34(3): 135-41, 2006

Toskovic, NN et al. The effect of experience and gender on cardiovascular and metabolic responses with dynamic Tae Kwon Do exercise. 16(2): 278-85, 2002.

Witvrouw, E. Stretching and injury prevention: an obscure relationship. Sports Med. 34(7): 443-9, 2004.

Appendix D. Exercise Physiologist's Curriculum Vitae

Daryl Parker, PhD
California State University, Sacramento
Dept. Kinesiology and Health Science
6000 J St.
Sacramento, CA 95819
(916) 278-6902
email: parkerd@csus.edu

Current Position

1999 - Associate Professor, California State University, Sacramento.
Exercise Science internship coordinator.

1999 - 2003 Adjunct Faculty, Lake Tahoe Community College, during the winter quarter

Education

2002 Doctor of Philosophy in P.E.- Exercise Science including a dual minor in statistics and biology University of New Mexico.
Dissertation: Changes in VO2max after an overnight exposure to 445 Torr with and without Theophylline administration.

1994 Master of Science in P.E. – Exercise Physiology California State University, Sacramento.
Thesis: The effect of sodium lactate ingestion on blood glucose homeostasis, blood lactate, and plasma volume during prolonged exercise.

1992 Bachelor of Science in P.E. – Biodynamics California State University, Sacramento.

Certifications

1997 USSA level-1 certification as nordic ski coach
1992 ACSM Certified Exercise Test Technologist
1991 ACSM Certified Health and Fitness Instructor
1990 AHA CPR certified BLS level C

Journal Reviewer

Journal of Exercise Physiology $_{\text{on-line}}$ – Editorial Board

Professional Memberships

2002 – current CAHPERD
1999 - current American Physiological Society
1999 – current American Society of Exercise Physiologists
1992 – current American College of Sports Medicine
1991 – current Southwest chapter of American College of Sports Medicine

Professional distinction

1996 Top ten finalist in SWACSM PhD student research awards

Presentations

Over 20 Professional Presentations at National and Regional Conferences

Journal Articles

12 Peer Reviewed Journal Publications

Abstracts

38 Peer Reviewed Abstract Publications