

JUVENILE CORRECTIONS OFFICER CORE COURSE

PHYSICAL TASKS TRAINING MANUAL

State of California
Corrections Standards Authority

Standards and Training for Corrections Program

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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 Juvenile 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 (#17). It is also of significant benefit to local agencies in the selection and training of new juvenile corrections officers. Furthermore, candidates for the position may find the information in this manual of benefit as they prepare to apply for the juvenile corrections officer job. The manual is to be used in conjunction with the Juvenile Corrections Officer Core Training Course Manual, revised 2007.

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

Goals of the Physical Tasks Training Curriculum

Unit #17 of the Juvenile 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 juvenile 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 juvenile corrections officer job tasks. The curriculum targets the major job-related physical capabilities for the majority of juvenile corrections officers statewide.

Four of the Behavior Skills Tests in the course are close simulations of actual juvenile 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 juvenile 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 not be automatically disqualified from placement in the juvenile 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 a juvenile 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 75-yard sprint within 30 seconds.

Behavior Skill Test #36

- 2) For 30 seconds, support the weight of a hanging 150-pound bag or dummy so that all stress is taken off the rope or chain from which it is suspended.

Behavior Skill Test #37

- 3) Within 30 seconds, jog or walk briskly 150 feet while maneuvering around obstacles; lift and carry a 20-pound weighted object (such as a fire extinguisher) for 75 feet of the 150 total feet.

Behavior Skill Test #38

- 4) Drag a 150-pound bag or dummy for a distance of 20 feet or more within 30 seconds.

Behavior Skill Test #39

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 to placement in the permanent juvenile 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 contra-indicators 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 juvenile 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 Department: 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: Within 30 days of course completion, the provider is responsible for submitting the results of the work simulation tests (as well as other course tests) to the employer. 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" (monitor).

In the coaching role, the instructor:

- maximizes the trainees' individual abilities to handle the physical demands of the job;
- minimizes the potential for training-related injuries; and,
- teaches trainees methods they can pursue on their own (after placement in the juvenile 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 #17, 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 two 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 #36 through #39), 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 Instructional Objective 17.7.10.

Test Report Form

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 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 thirty (30) hours of Defensive Tactics training and seventeen and a half (17.5) 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 #36 through #39) 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 county. 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 2002 job analysis research that preceded the revision of this curriculum identified important physically demanding tasks common to the majority (more than 50%) of juvenile corrections officers in the state. The physical conditioning portion of the core course in Unit #17 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 tasks training instructors know the tasks and performance standards to which each test and benchmark minimum corresponds. The instructors must be able to 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 direct connection with minimum job performance standards (to communicate their "real life" importance) will help the trainee deal realistically with the problem. A listing of all physically demanding core tasks is contained in Appendix E of this manual. The tasks most germane to this core curriculum are as follows:

- Pursue juveniles on foot (running).
- Run to the scene of a disturbance or emergency.
- Physically subdue or restrain a violent juvenile with the help of another person.
- Physically subdue or restrain a resisting juvenile with the help of another person.
- Physically separate two fighting juveniles with the help of another person.
- Lift heavy objects (e.g., injured or unconscious juvenile or piece of equipment).
- Drag heavy objects (e.g., injured or unconscious juvenile or piece of equipment).
- Handcuff a non-resisting juvenile.
- Handcuff a resisting juvenile.
- Secure resisting juvenile in restraint devices such as leg irons, travel restraints, leather restraints, restraint chair.
- Apply restraint devices such as leg irons, travel restraints, leather restraints to a non-resisting juvenile.
- Place and secure juvenile in safety room.
- Perform room 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 Juvenile 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 juvenile 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 – Juvenile Core Course 2003 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 75-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 – Juvenile Core Course 2007 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* 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: skipping.)
- Retain dynamic flexibility exercises at the start of the program since they will warm up the muscle without decreasing strength and power. (Example: arm circles.)
- 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 17.1.4 for a description of the Borg scale.)

* 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 G of this manual for detailed descriptions of plyometric exercises.

- Practice Defensive Tactics Footwork drills in the second week of training as these represent a light intensity callisthenic 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. (Example: modified wall sits.)
- 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 75 yard sprint standard and thus continued development of this energy system increases the likelihood of successful completion of the Defensive Tactics training.
- Standardize cardiovascular training to distance rather than time. The energy cost (and therefore the training effect) is more likely to be equal across individuals that travel the same distance, regardless of whether a trainee runs, jogs, or walks the distance.
- Test trainees on the four work Behavior Skills Tests in the order specified in the instructional objectives to avoid unnecessary fatigue of involved muscles. (See instructional objective 17.7.10.)

SECTION D. INSTRUCTIONAL GUIDELINES

Equipment and Facility Setup

Training facilities are likely to vary all the way 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
- Hand held weights
- Medicine balls or basketballs
- Stopwatch
- Large display clock
- 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:

Advice to Trainees:

- 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.

Logistical Considerations for Instructors:

- 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 17

Physical Tasks and Conditioning Instructional Time: 17 hours 30 minutes

Module 17.1 ORIENTATION – PHYSICAL CONDITIONING BASICS

Instructional Time: 1 hour 30 minutes

INSTRUCTIONAL OBJECTIVES:

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

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

JKT 2 items

17.1.2 Define common terms used in physical conditioning, such as:

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

JKT 3 items

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

Discussion

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

- Very, very light
- Very light
- Fairly light
- Somewhat hard
- Hard
- Very hard
- Very, very hard

Discussion

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

- weekend warrior
- 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

JKT 3 items

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

Discussion

17.1.7 Explain the purpose and goals of performance-based conditioning for juvenile corrections officers.

Discussion

17.1.8 Identify common injuries during training that might disable a juvenile corrections officer, such as the following:

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

JKT 1 item

17.1.9 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

JKT 3 items

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

Discussion

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

Discussion

Module 17.2 **CONDITIONING EXERCISES**

Instructional Time: 1 hour 30 minutes

(Please refer to Section F for Charts and Diagrams and Section G for Explanation of Plyometric Exercises.)

INSTRUCTIONAL OBJECTIVES:

17.2.1 Participate in Dynamic Warm-up exercises as described in Segment A, Week 1.

- 10 complete Arm Circles in each direction
- 2-3 Side Bends per side
- 10-20 Windmills
- One set Trunk Twists, 8 reps per side

Practice

17.2.2 Participate in Low Intensity Strength exercises as described in Segment A, Week 1.

- One set Stomach Flutter Kicks for 7 reps
- One set Knee-to-Forehead for 5-7 reps per leg
- One set (up to 20 reps) Push-ups (military or modified)
- One set Sit-ups for 10-20 reps
- One set Side Leg Raises for 10-12 reps per leg

Practice

17.2.3 Participate in Core Strength exercises as described in Segment A, Week 1.

- 3 sets of Prone Planks for 10 seconds each set; rest 10 seconds between each set
- 3 sets of Right Side Hover for 10 seconds each set; rest 10 seconds between each set
- 3 sets of Left Side Hover for 10 seconds each; rest 10 seconds between each set.

Practice

17.2.4 Participate in Low Intensity Plyometric exercises as described in Segment A, Week 1.

- 3 sets of warm-up Skipping for 10 skips each set; rest 30 seconds in between each set.
- 3 sets of Skipping-for-Height for 10 skips each set; rest 1 minute between each set.

Practice

17.2.5 Participate in Upper Body Strength exercises as described in Segment B, Week 1.

- One set Wrist Curls for 3 reps with weight of “somewhat hard.”
- One to three sets of Arm Curls for 6 reps with weight of “somewhat hard.”

Practice

17.2.6 Participate in Lower Body Plyometric exercises as described in Segment B, Week 1.

- One set of Two-Foot Hops 10 times.
- One set of Single-foot, Side-to-Side Hops 10 times.
- One set of Two-Foot, Side-to-Side Hops 10 times.

Practice

17.2.7 Participate in Lower Body Strength exercises as described in Segment B, Week 1.

- One to three sets of 6 reps Leg Press with a weight that feels “somewhat hard”, or Modified Wall Sits (up to 30-40 second hold), 2 reps

Practice

17.2.8 Participate in Cardiovascular exercise by walking or jogging 1 mile as described in Segment D.

- maintain intensity that is “somewhat hard”

Practice

17.2.9 Participate in Cool Down exercises as described in Segment E, Week 1. Cool Down exercises are provided to bring a slow decline in Heart Rate towards near pre-exercise level. If duration of more than 3 minutes is required, it should be extended for safety reasons.

- 3 sets of Calf Stretch for 5 seconds each set; rest 15 seconds between sets.
- 3 sets of Quad Stretch for 5 seconds each set; rest 15 seconds between sets.
- 3 sets of Knee Hugs for 5 seconds each set; rest 15 seconds between sets.
- 3 sets of Stride Stretches for 5 seconds each set; rest 15 seconds between sets.

Practice

Module 17.3 INITIAL ASSESSMENT

Instructional Time: 1 hour

INSTRUCTIONAL OBJECTIVES:

17.3.1 Practice the following two Work Sample Tests as described. *Do not practice the dummy drag or 75 yard sprint until later in the course.*

- Dummy Lift: With knees bent, wrap arms around a hanging bag or dummy weighing up to 150 pounds, get a firm hold on it, then straighten legs to lift the bag or dummy high enough to create slack in the rope/chain; aim to hold for 30 seconds. Start with a 120-130 pound bag or dummy. As able to support bag or dummy successfully, increase weight in 10-20 pound increments and/or time spent supporting the bag or dummy.

- Weighted Agility Run: Walk briskly or jog through a 150-foot zigzag barrier course consisting of three sharp turns, pick up a 20-pound fire extinguisher or weighted tube bag at the 75 foot mark and carry it back through the course, walking briskly. Aim for completing the full course in 30 seconds.

Practice

Module 17.4 **CONDITIONING EXERCISES**

Instructional Time: 1 hour

17.4.1 Repeat Module 17.2

Module 17.5 **CONDITIONING EXERCISES**

Instructional Time: 2 hours

INSTRUCTIONAL OBJECTIVES:

17.5.1 Perform Defensive Tactics Footwork as taught in Module 8.2 as cardiovascular exercise.

Practice

17.5.2 Participate in Dynamic Warm-up exercises as described in Segment A, Week 2.

- 10 complete Arm Circles in each direction
- 2-3 Side Bends per side
- 10-20 Windmills
- One set Trunk Twists, 8 reps per side

Practice

17.5.3 Participate in Low Intensity Strength exercises as described in Segment A, Week 2.

- Two sets Stomach Flutter Kicks for 7 reps
- One set Knee-to-Forehead for 8-10 reps per leg
- One set (up to 20 reps) Push-ups (military or modified)
- One set Sit-ups for 10-20 reps
- Two sets Side Leg Raises for 13-15 reps per leg

Practice

17.5.4 Participate in Core Strength exercises as described in Segment A, Week 2.

- 3 sets of Prone Planks for 15 seconds each set; rest 15 seconds between each set
- 3 sets of Right Side Hover for 15 seconds each set; rest 15 seconds between each set
- 3 sets of Left Side Hover for 15 seconds each; rest 15 seconds between each set.

Practice

17.5.5 Participate in Low Intensity Plyometric exercises as described in Segment A, Week 2.

- 3 sets of warm-up Skipping for 10 skips each set; rest 20 seconds in between each set.
- 3 sets of Skipping-for-Height for 10 skips each set; rest 1 minute between each set.

Practice

17.5.6 Participate in two Upper Body Plyometric exercises as described in Segment B, Week 2.

- 3 sets of Wheel Barrow for 16 steps*
- 3 sets of Explosive Wall Push-ups for 10 reps**

*If equipment available, choose one of two options below:

- Alternative: Overhead throw with medicine ball or basketball (same # sets and reps), or
- Alternative: Supine single arm overhead throw with medicine ball or basketball (same # sets and reps)

**If equipment available, choose one of two options below:

- Alternative: Chest pass with medicine ball or basketball (same # sets and reps), or,
- Alternative: Chest push with medicine ball or basketball (same # sets and reps).

Practice (Note: at least 1 to 2 minutes should separate each exercise.)

17.5.7 Participate in Upper Body Strength exercises as described in Segment B, Week 2.

- One set Wrist Curls for 3 reps with weight of "somewhat hard"
- One to three sets of Arm Curls for 6 reps with weight of "somewhat hard."

Practice

17.5.8 Participate in Lower Body Plyometric exercises as described in Segment B, Week 2.

- One set of Single-foot, Side-to-Side Hops 10 times.
- One set of Two-Foot, Side-to-Side Hops 10 times.
- One set of Standing Long Jump for 10 times
- One set of Standing Jump/Reach for 10 times.
- One set of Jump Over Barrier not exceeding 1.5 feet for 10 times.

Practice

17.5.9 Participate in Lower Body Strength exercises as described in Segment B, Week 2.

- One to three sets of 6 reps Leg Press with a weight that feels "somewhat hard", or Modified Wall Sits (up to 30-40 second hold), 2 reps. (Work up to 2-3 sets if previously at one set.)

Practice

17.5.10 Practice the four Behavior Skills Tests as described in the following order:

- 1) 75 yard Sprint in 30 seconds or less:
 - use moderate speed in initial sprints to avoid hamstring injury
 - use a straight track
- 2) 150-pound bag/dummy support as described in instructional objective 17.3.1.
- 3) Weighted agility run as described in instructional objective 17.3.1.
- 4) Drag a 150-pound bag or dummy for a distance of 20 feet within 30 seconds.

Practice

17.5.11 Participate in Cardiovascular exercise by walking or jogging 1.5 miles as described in Segment D, Week 2.

- maintain intensity that is “somewhat hard”

Practice

17.5.12 Participate in Cool Down exercises as described in Segment E, Week 2. Cool Down exercises are provided to bring a slow decline in Heart Rate towards near pre-exercise level. If duration of more than 3 minutes is required, it should be extended for safety reasons.

- 3 sets of Calf Stretch for 10 seconds each set; rest 20 seconds between sets.
- 3 sets of Quad Stretch for 10 seconds each set; rest 20 seconds between sets.
- 3 sets of Knee Hugs for 10 seconds each set; rest 20 seconds between sets.
- 3 sets of Stride Stretches for 10 seconds each set; rest 20 seconds between sets.

Practice

Module 17.6 **CONDITIONING EXERCISES**

Instructional Time: 2 hours

INSTRUCTIONAL OBJECTIVES:

Repeat Module 17.5

Module 17.7 **CONDITIONING EXERCISES**

Instructional Objectives: 1 hour 30 minutes

INSTRUCTIONAL OBJECTIVES:

Note: No sprint training during Week 3: This is incorporated in the Lower Plyometric Exercises.

17.7.1 Perform Defensive Tactics Footwork as taught in Module 8.2 for cardiovascular exercise.

Practice

17.7.2 Participate in Dynamic Warm-up exercises as described in Segment A, Week 3.

- 10 complete Arm Circles in each direction

- 2-3 Side Bends per side
- 10-20 Windmills
- One set Trunk Twists, 8 reps per side

Practice

17.7.3 Participate in Low Intensity Strength exercises as described in Segment A, Week 3.

- Three sets Stomach Flutter Kicks for 7 reps
- One set Knee-to-Forehead for 11-13 reps per leg
- One set (up to 20 reps) Push-Ups (military or modified)
- One set Sit-ups for 10-20 reps
- Two sets Side Leg Raises for 16-18 reps per leg

Practice

17.7.4 Participate in Core Strength exercises as described in Segment A, Week 3.

- 3 sets of Prone Planks for 20 seconds each set; rest 20 seconds between each set
- 3 sets of Right Side Hover for 20 seconds each set; rest 20 seconds between each set
- 3 sets of Left Side Hover for 20 seconds each; rest 20 seconds between each set.

Practice

17.7.5 Participate in Lower Body Strength exercises as described in Segment B, Week 3.

- One to three sets of 6 reps Leg Press with a weight that feels “somewhat hard”, or Modified Wall Sits (up to 30-40 second hold), 2 reps

Practice

17.7.6 Participate in Lower Body Plyometric exercises as described in Segment B, Week 3.

- 2 Hexagon Drills for 24 touches each drill
 - Flexing knees, jump forward to 12 o'clock position, then back to starting point; repeat to 2, 4, 6, 8, and 10 o'clock positions.
- 2 Multi Jumps for Height for 10 jumps each set
 - Flexing knees, jump into the air as high as possible, reaching up with arm extended upward

Note: rest for 1 minute between each set above.

Practice

17.7.7 Participate in one of three Lower Body Plyometric Circuits as described in Segment B, Week 3. See diagrams. Perform 3 circuits. Take 5-minute rest between 17.7.7 and 17.7.8.

- Plyo Circuit I:
 - 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 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,

- Plyo 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,

- Plyo 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

Practice

17.7.8 Participate in three Upper Body Plyometric exercises as described in Segment B, Week 3.

- 3 sets of Wheel Barrow for 16 steps*
- 3 sets of Explosive Wall Push-ups for 10 reps**
- One set Push-up Jump for 8 reps***

*If equipment available, choose one of two options below:

- Alternative: Overhead throw with medicine ball or basketball (same # sets and reps), or
- Alternative: Supine single arm overhead throw with medicine ball or basketball (same # sets and reps)

**If equipment available, choose one of two options below:

- Alternative: Chest pass with medicine ball or basketball (same # sets and reps), or,
- Alternative: Chest push with medicine ball or basketball (same # sets and reps).

***If equipment available, choose one of two options below:

- Alternative: Heavy bag thrust (same # sets and reps) or,

- Alternative: Heavy bag stroke (same # sets and reps) or,
- Advance Alternative: Catch and Overhead Throw with medicine ball (same # sets and reps).

Note: at least 1 to 2 minutes should separate each exercise.

Practice

17.7.9 Participate in Upper Body Strength exercises as described in Segment B, Week 3.

- One set Wrist Curls for 3 reps with weight of “somewhat hard.”
- One to three sets of Arm Curls for 6 reps with weight of “somewhat hard.”

Practice

17.7.10 Practice the four Work Sample Tests as described in the following order:

- 1) Sprint 75-yards on a straight track in 30 seconds or less.
- 2) Support the weight of a hanging 150-pound bag or dummy so that all the stress is taken off the rope or chain from which it is suspended for 30 seconds.
- 3) Walk briskly or jog through a 150-foot zigzag barrier course consisting of three sharp turns, pick up a 20-pound fire extinguisher or weighted tube bag at the 75 foot mark and carry it back through the course, walking briskly. Complete the full course within 30 seconds.
- 4) Drag a 150-pound bag or dummy for a distance of 20 feet within 30 seconds.

Practice

17.7.11 Participate in Cardiovascular exercises by walking or jogging 2 miles as described in Segment D, Week 3.

- maintain intensity that is “somewhat hard”

Practice

17.7.12 Participate in Cool Down exercises as described in Segment E, Week 3. Cool Down exercises are provided to bring a slow decline in Heart Rate towards near pre-exercise level. If a duration of more than 3 minutes is required, it should be for safety reasons.

- 3 sets of Calf Stretch for 15 seconds each set; rest 25 seconds between sets.
- 3 sets of Quad Stretch for 15 seconds each set; rest 25 seconds between sets.
- 3 sets of Knee Hugs for 15 seconds each set; rest 25 seconds between sets.
- 3 sets of Stride Stretches for 15 seconds each set; rest 25 seconds between sets.

Practice

Module 17.8 **CONDITIONING EXERCISES**
Instructional Time: 1 hour 30 minutes

INSTRUCTIONAL OBJECTIVES:

Repeat Module 17.7

Module 17.9 **CONDITIONING EXERCISES**

Instructional Time: 1 hour 30 minutes

INSTRUCTIONAL OBJECTIVES:

Repeat Module 17.7

Module 17.10 **FINAL ASSESSMENT AND FITNESS PLANNING: PART ONE**

Instructional Time: 2 hours

INSTRUCTIONAL OBJECTIVES:

17.10.1 On a straight track, complete a 75-yard sprint within 30 seconds.

BST #36

17.10.2 For 30 seconds, support the weight of a hanging 150-pound bag or dummy so that all stress is taken off the rope or chain from which it is suspended.

BST #37

17.10.3 Within 30 seconds, jog or walk briskly 150 feet while maneuvering around obstacles; lift and carry a 20-pound weighted object (such as a fire extinguisher) for 75 feet of the 150 total feet.

BST #38

17.10.4 Drag a 150-pound bag or dummy for a distance of 20 feet within 30 seconds.

BST #39

17.10.5 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

Module 17.11 **FINAL ASSESSMENT AND FITNESS PLANNING: PART TWO**

Instructional Time: 2 hours

INSTRUCTIONAL OBJECTIVES:

Repeat Module 17.10

SECTION F. CHARTS AND DIAGRAMS

Segment A

Exercise	Week 1	Week 2	Week 3
Planks			
Prone	3 x 10 sec Rest 10 sec	3 x 15 sec Rest 15 sec	3 x 20 sec Rest 20 sec
R. Hover	3 x 10 sec Rest 10 sec	3 x 15 sec Rest 15 sec	3 x 20 sec Rest 20 sec
L. Hover	3 x 10 sec Rest 10 sec	3 x 15 sec Rest 15 sec	3 x 20 sec Rest 20 sec
Skips	2 x 10 skips 30 sec between Recommend walking between sets to maintain warm-up	2 x 10 skips 20 sec between	2 x 10 skips 10 sec between
Skips for Ht	2 x 10 skips 1 min between Recommend walking between sets to maintain warm-up	2 x 15 skips 1 min between	2 x 20 skips 1 min between
DT Footwork	Used at the start of the Segment A as an aerobic warm-up starting week 2 after the footwork is introduced in DT training the first week. Duration = 10 min		
Arm Circles	10 each direction	same	same
Side Bends	1x2-3 per side	same	same
Windmills	1x10-20	same	same
Trunk Twists	1x8 reps per side	same	same
Stomach Flutter Kicks	1x7 reps	2x7 reps	3x7 reps
Knee-to-Forehead	1x5-7 reps per leg	1x8-10 reps	1x11-13 reps
Push-ups	1x up to 20 reps	same	same
Sit-ups	1x10-20 reps	same	same
Side Leg Raises	1x10-12 reps per leg	2x13-15	2x16-18

Segment B

Exercise	Week 1	Week 2	Week 3
<u>Lower Plyos</u>			
Two-Foot Hops	1 x 10		
Single-Foot S to S Hops	1 x 10	1 x 10	
Two-Foot S to S Hops	1 x 10	1 x 10	
Standing Long Jump		1 x 10	
Standing Jump/Reach		1 x 10	
Jump Over Barrier		1 x 10	
Hexagon Drill			2 Drills (24 Touches)
Multi Jumps for Height			2 x 10 jumps 1 min between sets 5 min rest before circuits
			3 x Plyo Circuit Choose a circuit See Diagrams

At least 1 to 2 min should separate each exercise.

Upper Plyos

Wheel barrow*	-	3 x 16 steps	3 x 16 steps
Explosive wall push up**	-	3 x 10 reps	3 x 10 reps
Push up jump***	-	-	1 x 8 reps

*Alternative Exercises

Overhead throw w/med ball or basketball
Supine single arm overhead throw w/med ball or basketball

**Alternative Exercises

Chest pass w/med ball or basketball
Chest push w/med ball or basketball

***Alternative Exercises

Heavy bag thrust
Heavy bag stroke
Catch and Overhead Throw w/med ball (Advanced)

Upper Body Strength

Wrist Curls	1x3 reps	same	same
Arm Curls	1x3-6 reps	same	same

Lower Body Strength

Leg Press	1-3x6 reps	same	same
or			
Modified Wall Sit	1x30-40 sec hold x 2 reps	same	2-3x30-40 sec hold x 2 reps

Segment C

Exercise	Week 1	Week 2	Week 3
75 Yard Sprint	2 nd session	x	

No Sprint training on week 3. They are incorporated into the plyo circuits.

Trainees should be encouraged to improve their times as much as is possible.

Segment D

Exercise	Week 1	Week 2	Week 3
Walk/Jog	1.0 mi	1.5 mi	2.0 mi

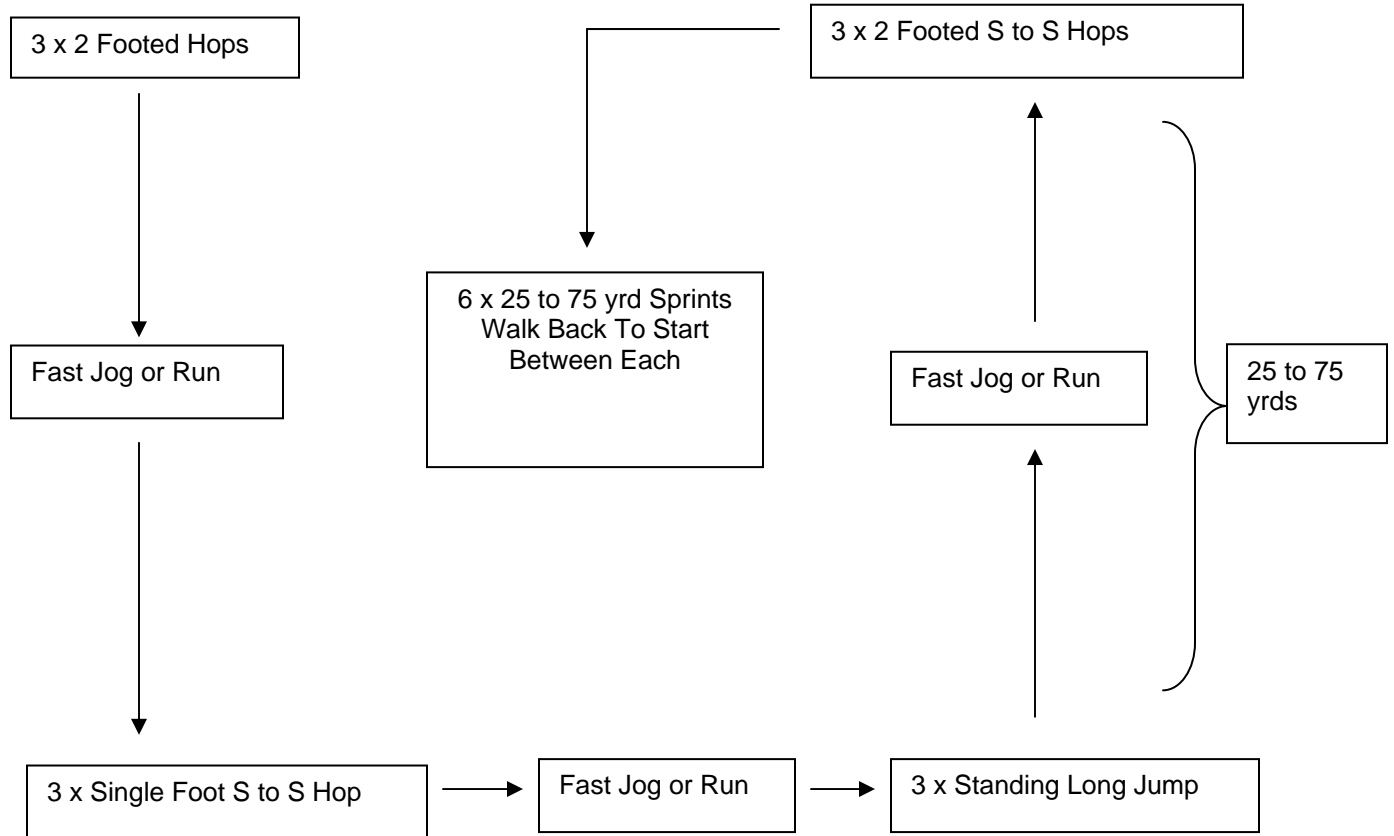
Maintain an intensity that is "somewhat hard."

Segment E

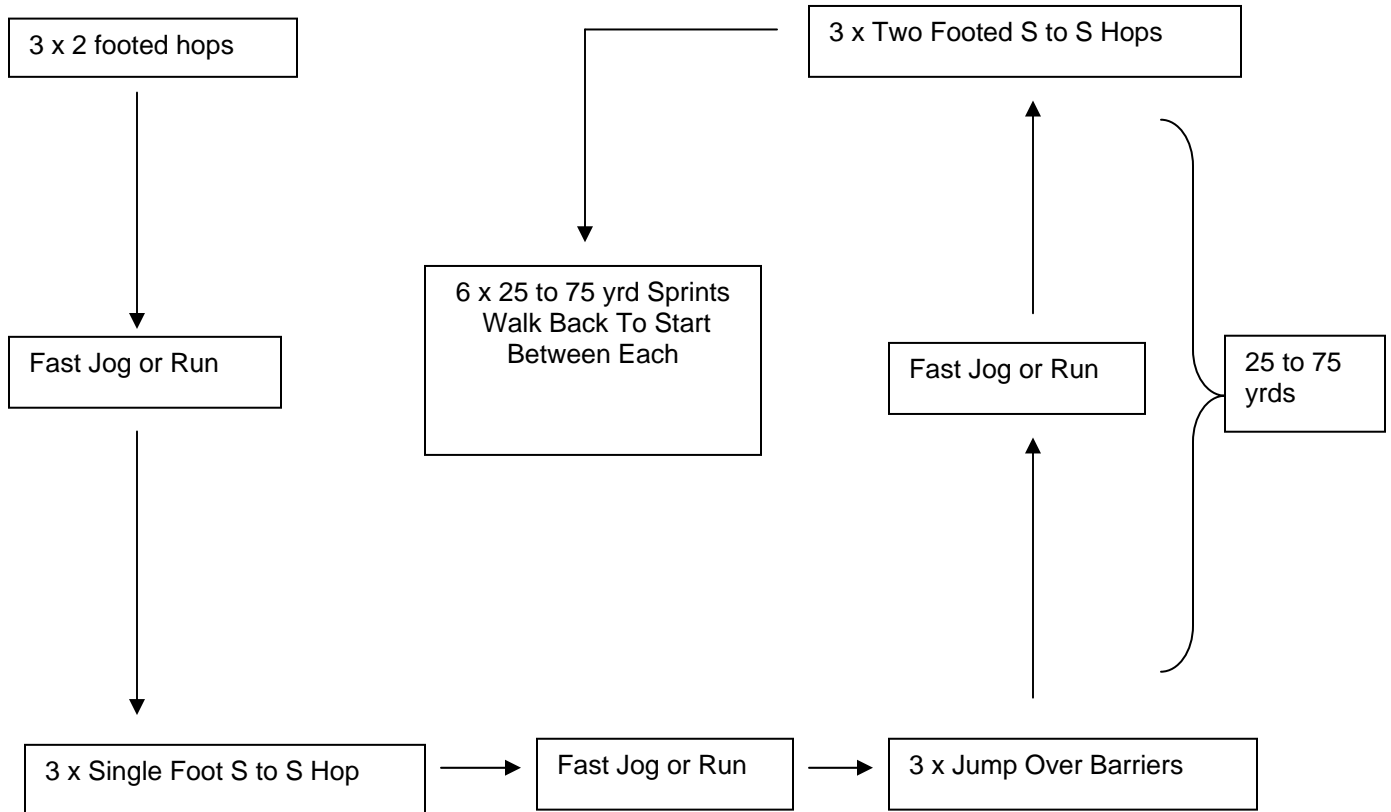
Exercise	Week 1	Week 2	Week 3
Walk Stretch	3 min*	3 min*	3 min*
Calf stretch	3 x 5 sec Rest 15 sec	3 x 10 sec Rest 20 sec	3 x 15 sec Rest 25 sec
Quad stretch	3 x 5 sec Rest 15 sec	3 x 10 sec Rest 20 sec	3 x 15 sec Rest 25 sec
Knee hugs	3 x 5 sec Rest 15 sec	3 x 10 sec Rest 20 sec	3 x 15 sec Rest 25 sec
Stride Stretches	3 x 5 sec Rest 15 sec	3 x 10 sec Rest 20 sec	3 x 15 sec Rest 25 sec

* Cool down exercise is provided to bring a slow decline in HR back towards near pre-exercise level. If a duration of >3 min is required it should be used for safety reasons.

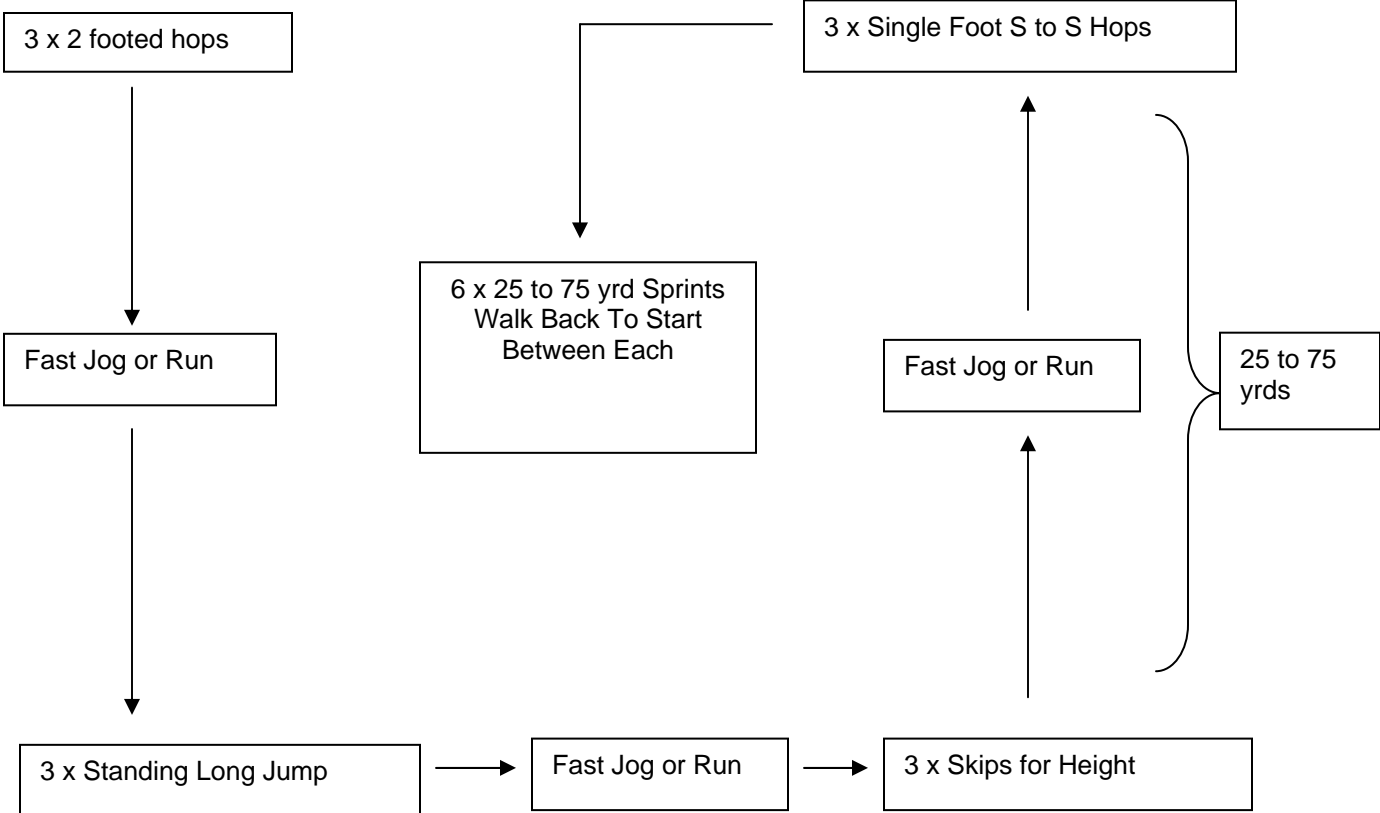
Plyo Circuit I



Plyo Circuit II



Plyo Circuit III



Dummy Lift

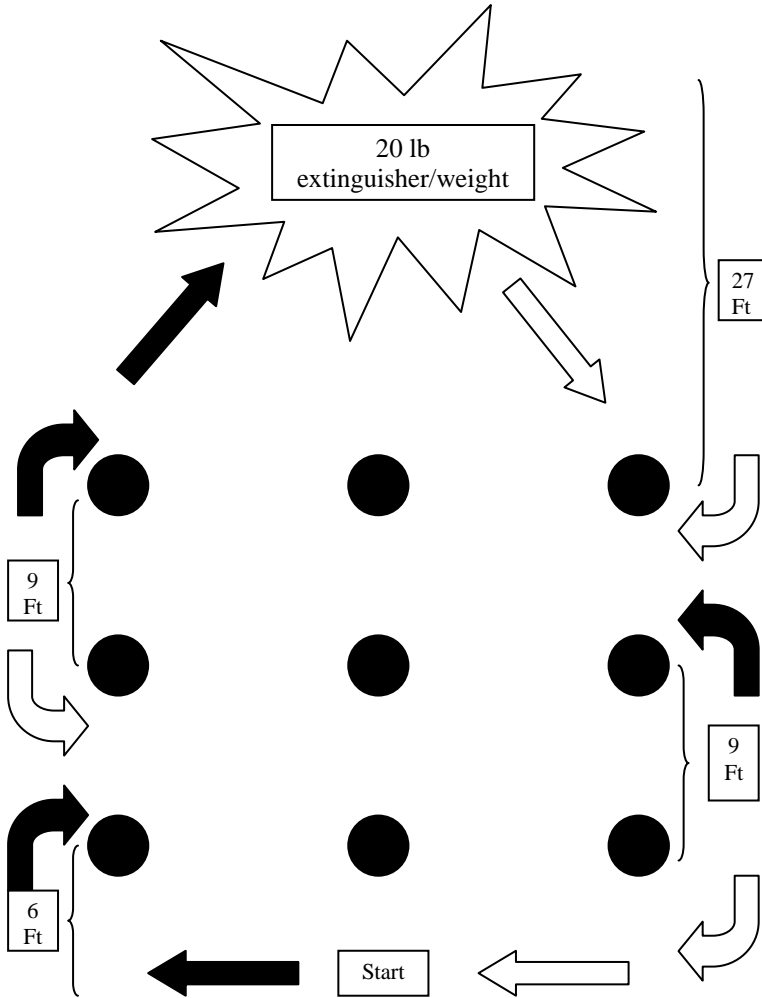
For 30 seconds, support the weight of a hanging 150-pound bag or dummy so that all stress is taken off the rope or chain from which it is suspended.

With knees bent, wrap arms around the 150-pound bag or dummy. Get a firm hold, and then straighten legs to lift the bag or dummy high enough to create slack in the rope/chain.



Weighted agility run

Walk briskly or jog through a 150-foot zigzag barrier course consisting of three sharp turns. Pick up a 20-pound fire extinguisher or weighted tube bag at the 75-foot mark and carry it back through the course. Complete the full course within 30 seconds.



Dummy drag

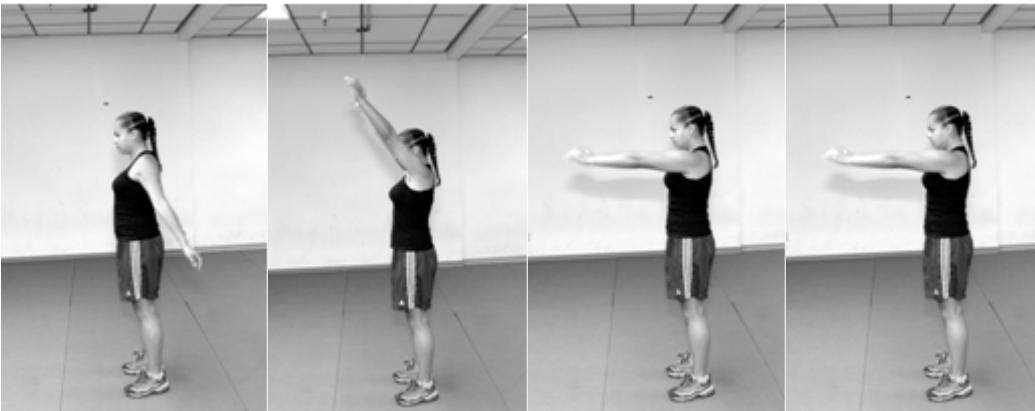
Drag a 150-pound bag or dummy for a distance of 20 feet within 30 seconds.

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.



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 10 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 again, 2 to 3 times on each side.



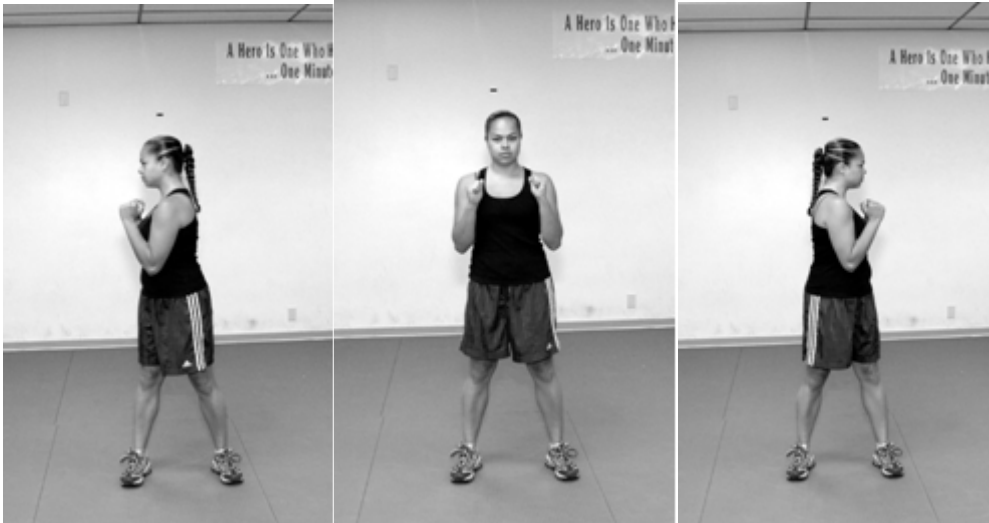
Windmills

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 the full cycle 10-20 repetitions.



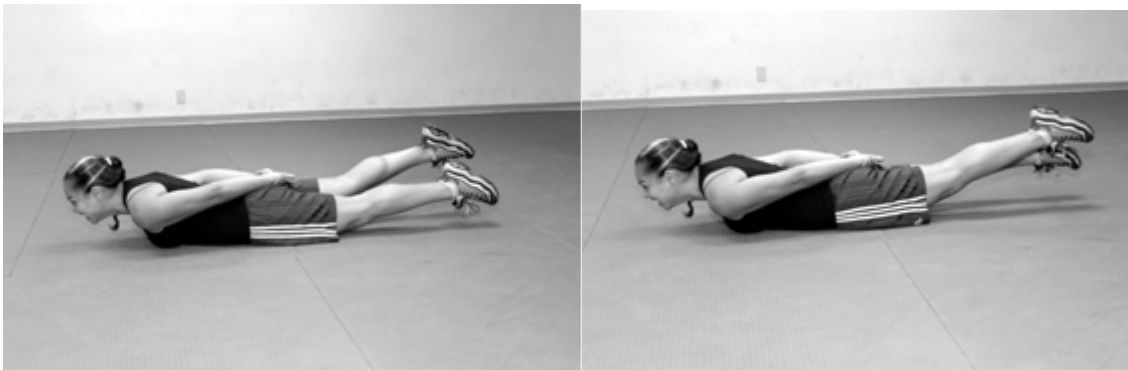
Trunk Twists

Standing, twist gently from right to left and reverse. Hands can be outstretched or in front with elbows bent. Perform 8 times per side.



Stomach Flutter Kicks

Lie on stomach with hands under the thighs. Keeping the legs straight, flutter feet alternately 7 times.



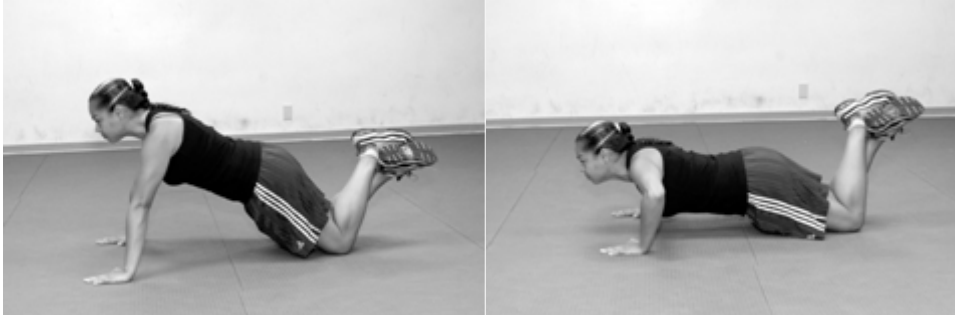
Knee-to-Forehead

With hands and knees on the floor, bring one knee toward the forehead (flexing the neck), then straighten the leg back as far as possible. Perform 5-7 leg extensions before switching to the other leg.



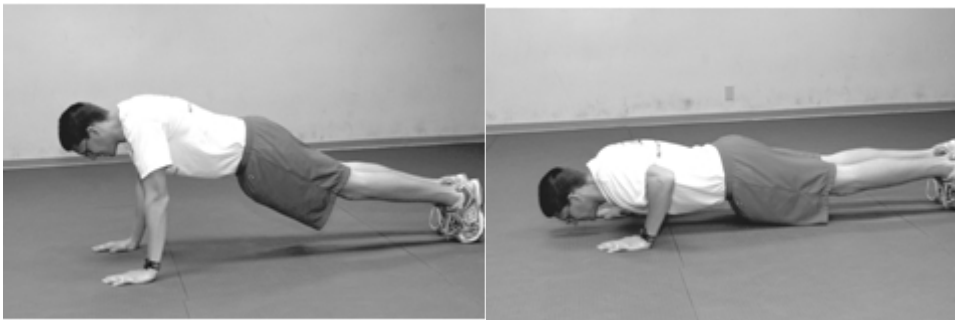
Push-ups (modified)

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.



Sit-ups

Start on the back, knees bent at a 90-degree angle with hands behind the head. Raise the head and upper part of the body, curling up from the waist. Perform 10-20 reps.



Side Leg Raises

While on the side with legs straight, slowly raise the top leg 18" and return. After 10 leg raises, roll to the opposite side and repeat with the other leg. Perform 10-20 reps per leg.



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 prescribed 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 prescribed amount of time.



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 prescribed number of touches and recovery duration.



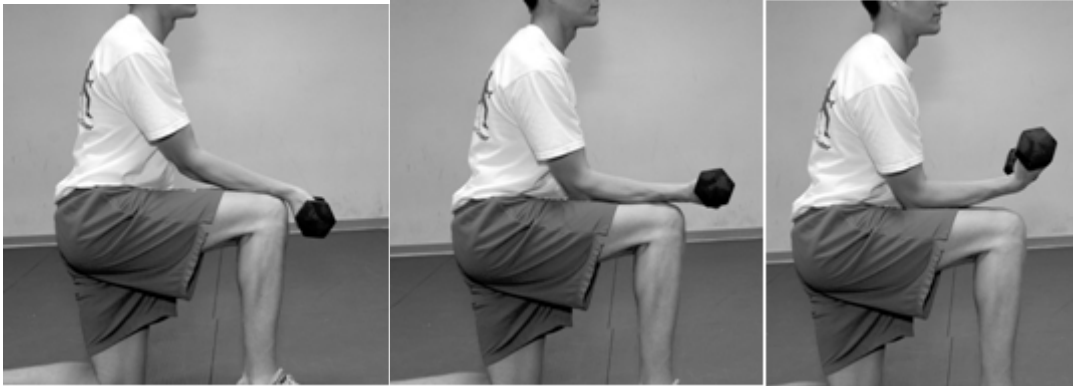
Skipping-for-Height

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 prescribed number of touches and the recovery duration.



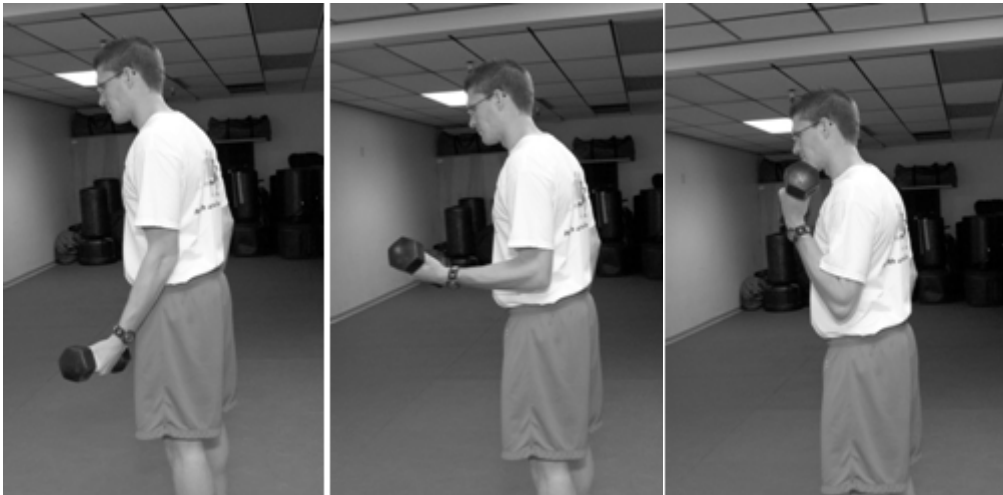
Wrist Curls

Selecting a weight of "somewhat hard", take a kneeling position with the arm supported by the leg. Curl the weight up with hand palm side up. Perform the prescribed number of repetitions.



Arm Curls

Selecting a weight of "somewhat hard", raise weight from the extended position and then lower it back down slowly. Keep back straight and knees slightly bent. Do not hold breath during the movement. Perform the prescribed number of repetitions.



Leg Press

Selecting a weight of "somewhat hard", start in a press position and extend leg until nearly straight. Do not lock out the knees. Return leg to the start position slowly. Perform the prescribed number of repetitions.



Modified Wall Sit

Partners sit facing opposite directions, back-to-back, with arms hooked at elbows, backs erect, and knees bent at right angles. Partners then perform a simultaneous backward push and standing effort, rising to a half knee bend and holding position for 30-40 seconds. Perform the prescribed number of repetitions.



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. Start at 3 sets for 5 seconds and work up to 3 sets for 15 seconds over the course of the program.



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.



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 three seconds, then follow same procedure with other leg, again keeping opposite leg straight. Alternate six times.



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. Start at 3 sets of 5 repetitions and work up to 3 sets of 15 repetitions over the course of the program.



SECTION G. EXPLANATION OF 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 hopping back and forth for the recommended number in the set. Distance between hops should be about three feet.

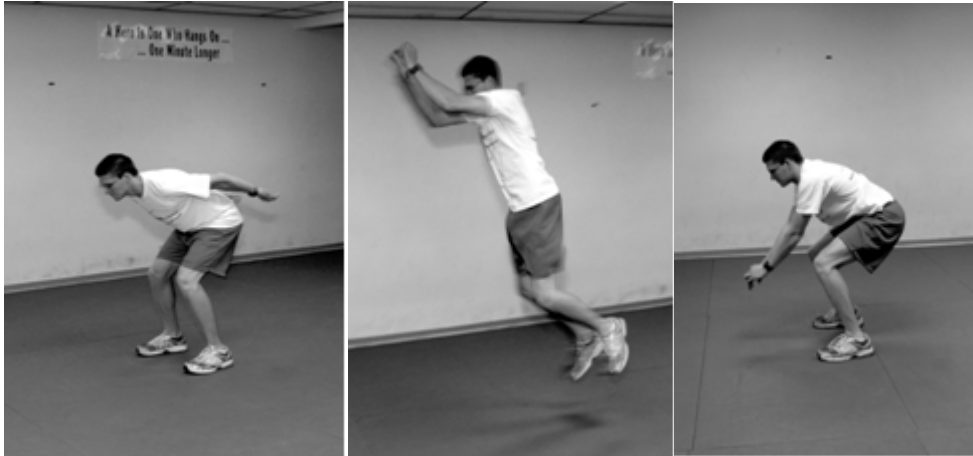


Two Foot Side-to-Side Hop

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.

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.



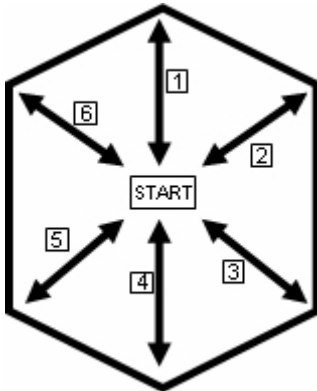
Standing Jump Over Barrier

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 Jump 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.

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.



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.



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 Upper Body Plyos

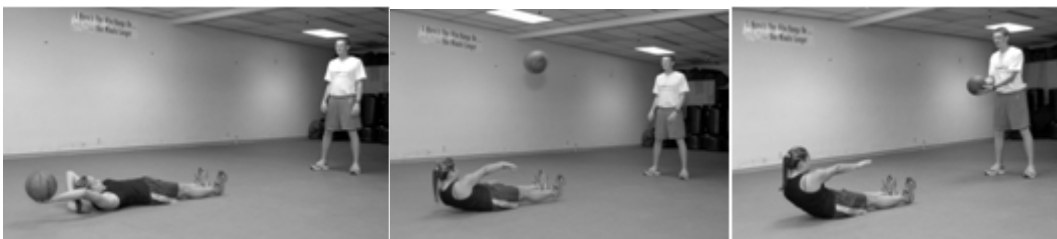
Overhead throw w/med ball or basketball

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 indicated number of repetitions is completed.



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.



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.



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.



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.



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



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.



Appendix B. Training Provider and Instructor Resources

150 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.nasca-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

Suggested Reading

Getting Stronger
Bill Pearl

Guidelines for Exercise
Testing and Prescription,
7th Edition, American College
of Sports Medicine

Appendix C. References

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

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 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

Appendix E. Physically Demanding Core Tasks

- Pursue juveniles on foot (running).
- Walk or stand for long periods of time.
- Sit for long periods of time.
- Run to the scene of a disturbance or emergency.
- Physically subdue or restrain a violent juvenile by yourself.
- Physically subdue or restrain a violent juvenile with the help of another person.
- Physically subdue or restrain a resisting juvenile by yourself.
- Physically subdue or restrain a resisting juvenile with the help of another person.
- Physically separate two fighting juveniles by yourself.
- Physically separate two fighting juveniles with the help of another person.
- Defend self against a juvenile armed with a weapon (e.g., knife).
- Disarm and subdue a juvenile armed with a weapon.
- Search areas for contraband that are not easy to access (e.g., under beds, in, behind, and around large equipment, vehicles).
- Carry heavy objects (e.g., injured or unconscious juvenile or piece of equipment).
- Lift heavy objects (e.g., injured or unconscious juvenile or piece of equipment).
- Drag heavy objects (e.g., injured or unconscious juvenile or piece of equipment).
- Push hard-to-move objects by hand (e.g., furniture, piece of equipment).
- Pull self up over obstacles (e.g., chairs, tables).
- Jump over obstacles.
- Climb one or more flights of stairs.
- Run up one or more flights of stairs.
- Run down one or more flights of stairs.
- Use body force to gain entrance through barriers (e.g., locked doors).
- Climb up to elevated surfaces (e.g., roof).
- Jump down from elevated surfaces.
- Defend oneself or others using less lethal force (e.g., OC spray, baton, hand holds, etc.)
- Defend oneself or others using lethal force.

Handcuff a non-resisting juvenile.

Handcuff a resisting juvenile.

Secure resisting juvenile in restraint devices such as leg irons, travel restraints, leather restraints, restraint chair.

Apply restraint devices such as leg irons, travel restraints, leather restraints to a non-resisting juvenile.

Place and secure juvenile in safety room.

Perform room extractions.

Climb up and down stationary ladder.