Fitness Manual

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This is the Fitness and Exercise Manual used by the Firefighters of Los Angeles County. Used by permission of its author and patient of Dr. Stetson: Robert J. Karwasky, MS, CSCS, Exercise Physiologist.

Intro - Fitness Manual | Sports Medicine Dr.

The extensive benefits of enhanced fitness and health from a regular exercise program are well established. For firefighters, maintaining a high level of functional physical fitness is a critical necessity.

Creating a work environment that is conducive to achieving and maintaining high levels of fitness and health is one of the major goals for all departments participating in the IAFF/IAFC Wellness/Fitness Initiative. The County of Los Angeles Fire Department is at the forefront in demonstrating its commitment to meeting this goal with a comprehensive package of resources. Annual medical exams, which include several fitness components, were initiated on March 1, 2000. The Wellness/Fitness staff has worked closely with each of the contracted medical facilities to reiterate our emphasis in encouraging an aggressive pursuit of high fitness levels and healthy lifestyles. New exercise equipment has been delivered to all administrative sites with instructional materials. Peer fitness trainers will soon be available to provide assistance and guidance for all fitness related questions. And of course, on-duty exercise time is provided every shift. Hopefully, all employees will take full advantage of these resources.

The purpose of this manual is to provide a basic, practical, and safe exercise guide designed to be applied to the on-duty exercise program with the equipment available at each site. It attempts to accommodate the goals of a wide variety of firefighters: those in need of reconditioning, average firefighters, high-fit athletes, young, older, male and female. It is expected that many individuals will request more specific information on their exercise program. When this is the case, employees should contact their peer fitness trainer or send an e-mail message to the Wellness/Fitness Exercise Physiologist (Groupwise e-mail: Fitness).

Strict confidentiality guidelines for all communications between employees, peer fitness trainers, and Wellness/Fitness staff will always be maintained.

Overview | Sports Medicine Dr.

Flexibility is the ability to move your joints through a normal range of motion. We all inherit certain characteristics of our joints and muscle attachments, which determine our potential range of motion. This sometimes leads to frustration among individuals who compare themselves to more flexible peers or established “norms”. Rather than dwell on individual differences, it is more productive to focus on the following concepts:

1. In the large majority of joint movements, an unrestricted or enhanced range of motion is associated with a reduced risk of injury for an individual, regardless of innate ability;

2. Almost everyone who follows a consistent stretching program will improve his or her range of motion;

3. Stretching will help offset the detrimental decrease in range of motion due to repetitive overuse, inactivity, and aging.

The immediate benefits of a proper stretching program are a decreased risk of injury from sudden forceful movements and decreased muscle and joint soreness and stiffness following exercise. Good flexibility is necessary to maintain correct posture, which helps protect against back problems. Coordination can be improved when flexibility increases, which can enhance job and athletic performance. When done properly, an extended stretching session can be a relaxing and cathartic experience, which can have a positive effect on overall health. However, achieving extreme levels of flexibility in some joints, can result in unsafe joint instability, and should be avoided.

Stretching to improve range of motion should always be done after an adequate warm-up. Using stretching as a warm-up, when the muscles are cold, increases discomfort and is not as effective. A five minute warm-up of light calisthenics or cardiovascular exercise will raise muscle temperature, increase blood flow, and allow the stretched muscle to relax and elongate more effectively and with less discomfort. Warm, moist heating pads, or a brief warm water bath are other effective ways to increase muscle temperature. When exercising outdoors, wear loose fitting, warm clothes during the warm-up and stretching, which can be removed as the workout intensifies.

Types of Stretching | Sports Medicine Dr.

STATIC STRETCHING

Static stretching refers to a slow, gradual, and controlled stretch through a full range of motion. This is a steady-intensity, long duration technique. Static stretching can be performed at two levels of intensity.

THE EASY STRETCH

At the beginning of a stretch, ease into a movement so that you feel a mild tension. Hold this level for 10-30 seconds and concentrate on relaxing. The feeling of tension should gradually subside as your muscles relax. If it does not, ease off slightly and find a degree of tension that is comfortable. The easy stretch reduces muscular tightness and readies the muscles for the developmental stretch.

THE DEVELOPMENTAL STRETCH

After the easy stretch, gently move a fraction of an inch further until you again feel a mild tension. Hold for 10-30 seconds. The tension should diminish. If not, ease off to a comfortable level of tension. The developmental stretch fine-tunes the muscles and increases flexibility.

BALLISTIC STRETCHING

Ballistic or dynamic stretching involves bouncing movements in which the end point is not held. After a thorough warm-up of the involved musculature, ballistic stretching should be performed in a rhythmic movement that mimics a specific job or sport skill (e.g., swinging an ax, sledgehammer, baseball bat, or golf club). Ballistic stretching may promote dynamic flexibility and decrease injury potential for these high-speed activities. Initially, movements should be small and gradually increased to larger ranges of motion.

NOTE: Ballistic stretching does involve a higher risk of developing soreness or injury. It should be avoided by people with a history of injury in the involved joints and reserved for sport specific training programs after a thorough warm-up and static stretching routine. It is generally not recommended for the general populations.

PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION

Proprioceptive Neuromuscular Facilitation (PNF) is an advanced stretching technique that employs alternating muscular contraction-relaxation protocols. PNF stretching can be very effective in improving joint range of motion and can also provide modest gains in strength. They are commonly used to help restore normal range of motion and strength following injury. However, most PNF exercises require the use of a knowledgeable and experienced partner.

FREQUENCY

Stretching should be done daily, before and after activity. It can also be done in short breaks throughout the day. Often, there is a limited time for exercise and stretching adequately is often neglected in favor of weight training or cardiovascular training. When this is the case, it is important to always do an adequate warm-up, proceed to an abbreviated stretching routine, emphasizing the specific muscles soon to be used, then easing into a workout of low-to-moderate intensity. Stretching between sets of weight training or during short breaks while running can be helpful. Additionally, a comprehensive, uninterrupted stretching routine of at least 20 minutes, at least twice a week, is needed to maintain good flexibility, with more needed for significant improvement.

INTENSITY

Stretching should never be performed past the point of mild tension or discomfort. Discomfort may be more noticeable at the start of a program, but should become less prominent with subsequent sessions. Muscles should feel relaxed and loose following stretching, not sore or stiff. However, care must be taken to allow adequate recovery from all exercise routines, and to avoid "over-stretching", or attempting to "stretch-out" minor injuries. In general, light stretching can help the healing process of many musculoskeletal injuries, but aggressive stretching can be traumatic and aggravate the injury. In the case of injury rehabilitation, it is important to follow the specific recommendations of a qualified exercise specialist or medical professional.

Recent research has indicated that aggressive developmental stretching may cause minor muscle trauma, similar to weight lifting, which requires a period of recovery. Therefore, aggressive developmental stretching to increase range of motion should not be done prior to a challenging strength training, cardiovascular workout or sports activity. A less aggressive warm-up and stretching regimen is recommended prior to these workouts, and aggressive developmental stretching is best done afterward or during a separate exercise session.

Breathing should be slow, rhythmic, and under control. Do not hold your breath while stretching. If bending forward, exhale while bending, then breathe slowly as you hold the stretch. If a stretch position inhibits your normal breathing, ease up on the stretch to allow normal breathing.

Strength is defined as the maximal force that a specific muscle or muscle group can generate. The physical demands of firefighting often require extraordinary strength. Job analysis studies have shown that some equipment used by a single firefighter on the job exceeds 100 lbs. Additionally, many work situations are unpredictable and place the firefighter in biomechanically compromised situations, increasing the risk of injury. Strength training can help maintain a high level of absolute strength (i.e., the ability to lift external objects), strength relative to your body weight, and muscular endurance (i.e., the ability to sustain high levels of muscular work for extended periods of time). This will help decrease your risk of sudden acute injury and overuse injuries due to repetitive activities. Conversely, low levels of strength have been shown to contribute to a high incidence of sprains, strains, and back injuries found among some firefighters.

ON-DUTY FUNCTIONAL STRENGTH TRAINING

Strength Training Overview | Sports Medicine Dr.

Many tasks on the job often require lifting and/or carrying heavy objects of various sizes and shapes through movements that require a coordinated effort among muscle groups. Many exercise facilities have an extensive assortment of equipment designed to isolate a specific muscle group, and exercise it under optimally controlled conditions. However, lifting tasks on the job rarely duplicate these controlled conditions. Training with dumbbells, because they must be balanced and controlled at all times, and allow an unrestricted range of motion, may offer an advantage over many apparatus in this regard.

The purpose of this manual is to recommend a basic training program that will provide the benefits of weight training and can be done on duty with the equipment available at each station. Exercises were selected to train all muscle groups through movements that are frequently required in specific firefighting tasks. The exercises should be performed in a "circuit" with only a short rest between sets and exercises. This will allow for the most efficient use of time, space, and equipment, and when done vigorously, contribute a cardiovascular training benefit.

If adhered to as prescribed, the program will help firefighters develop and maintain an enhanced level of muscular strength that will improve job performance and reduce injury risk.

This program is not intended to prepare an individual for maximal strength, bodybuilding, or high intensity sports performance. While exercising, some degree of fatigue is needed to achieve the benefits of strength training. However, exercising to exhaustion or near exhaustion, could potentially compromise job performance if there is insufficient time to recover. Therefore, repeated maximal sets and/or high volume work on one muscle group is not recommended during on duty exercise sessions.

FREQUENCY

On the average, the on-duty program will provide two strength training sessions per week. The adequacy of this depends on the level of fitness of the individual. Individuals who have not been strength training regularly will improve significantly training twice per week. Highly trained individuals will have to supplement the program with additional training to maintain or improve their fitness.

In general, most muscle groups require 2-3 days to fully recover from a moderately intense workout. Inadequate recovery time between sessions will result in smaller strength gains and possible overuse injury. If there is soreness present from a prior workout, then recovery is not yet complete, and workouts should be of a light intensity, or even postponed for a day. Alternating hard and easy workouts is a common practice. A split routine is an advanced technique for experienced lifters who prefer to work out more frequently, often up to six days per week. A higher volume of work will be given to select muscle groups on alternate days, still allowing adequate recovery time for each muscle group. This type of training may be suitable if a limited amount of time to workout is available on a daily basis, and more intense training is required, and can be safely tolerated.

SELECTION OF EXERCISES

Choose approximately ten exercises covering all major muscle groups. Large muscle groups should be worked before smaller muscle groups and multi-joint exercises performed before single-joint exercises. For example, the bench press should be done before triceps kickbacks, and bent-over rows should be done before arm curls.

INTENSITY

Priority should always be given to maintaining proper form throughout a full range of motion, not to the amount of weight lifted. The additional strength gains from aggressive lifting will quickly be lost if poor technique results in injury. When beginning a program, or adding a new exercise, proper form with manageable light weights must be mastered. The effects of these exercises can be assessed during the recovery days, and help determine an appropriate level of progression.

Muscles adapt to the specific workload to which they are subjected. The workload is a function not only of the amount of weight lifted, but also the number of repetitions, speed of movement, number of sets, and amount of recovery time between sets.

Maximal strength is determined by the largest amount of weight that can be lifted unassisted with proper form one time, or one repetition maximum (1RM). This should only be attempted by experienced lifters with spotters available. A safer alternative is a measurement of an 8-repetition maximum (8RM), which is the amount of weight that a person can successfully lift eight times without assistance, but not nine times.

A program designed for maximum strength gains, will emphasize a high resistance (>80% of 1RM), low repetitions (1-6+), numerous sets (3-5+) with full recovery between sets (2+ minutes). A program designed to emphasize muscular endurance improvement would utilize a lighter weight (<70% of 1RM), more repetitions (12-15+), fewer sets (2-3), and shorter recovery between sets (30-60 seconds). Since high levels of both muscular strength and endurance are needed by firefighters, this program will attempt to combine these goals for the on-duty setting.

Although the greatest improvements in strength will be found when multiple sets are performed, most lifters will experience almost as much improvement doing as few as 1 or 2 sets, provided the intensity is comparable. Considering this, the following regimen is suggested which will provide a balance of strength and endurance benefits, minimize risk of injury, and be time efficient.

SET 1

The Light Set:

– Essentially an extension of the warm-up.

– 12-15 reps of a comfortable weight (approximately 60-70% of 8 RM)

– The endpoint of the set should be mild fatigue, not exhaustion.

SET 2

The Hard Set:

– 8-10 reps of a challenging weight (approximately 10RM)

– The endpoint of the set should be near failure to complete the last repetition without assistance.

Experienced or advanced lifters may wish to add additional hard sets to meet their personal goals if time allows. However, priority should be given to performing a variety of exercises and balancing fitness goals (strength, flexibility, and cardiovascular fitness) in the limited on-duty time available, rather than concentrating a high volume of work on a few muscle groups.

PROGRESSION

When only a moderate effort is required to complete the desired number of repetitions for a set, the workload can be increased.

Only one training variable (i.e., amount of weight, number of repetition, number of sets, or recovery time) should be increased at a time.

Varying training variables and exercises every month or two can help with motivation and prevent training plateaus.

BASIC SAFETY GUIDELINES – WARM-UP AND COOL-DOWN

A five minute warm-up of light cardiovascular exercise will increase blood flow to the muscles and reduce the risk of injury. Stretching the muscles before lifting and between sets is also advised. A similar cooldown following exercise will aid recovery.

BODY POSITION – ALWAYS LIFT FROM A STABLE POSITION.

While standing, keep feet flat on the floor, knees slightly bent and toes pointed slightly outward. The head should be level and eyes looking straight ahead. When doing exercises on a bench, five points of contact (i.e., head, shoulder girdle area, and buttocks on the bench, and feet flat on the floor) should be maintained.

When lifting a weight from the ground, use the legs and keep the back straight.

BREATHING

Proper breathing technique can help lifting performance and reduce the risk of injury. Lifters should exhale as the weight passes through the “sticking point” (i.e., the most difficult part of the lift) and inhale during the recovery phase. By exhaling when the weight passes through the sticking point and not before, intra-thoracic pressure is momentarily increased, which can help stabilize the lower back. However, prolonged straining at the sticking point, or breath holding throughout a repetition should be avoided.

SPOTTING

A spotter is someone who assists the lifter in the execution of an exercise. A spotter can also be helpful in analyzing form and providing motivation. Spotters can also assist in getting the weights from the floor to the starting position and taking the weights from the lifter when the set is done. A spotter is required in any lift where the weight is lifted overhead or over the face. Additionally, heavy lifting or new or unfamiliar exercises also require a spotter. The lifter and the spotter should communicate clearly as to the nature and goals of the set. The spotter should also ensure that the area surrounding the lifter remains safe from other exercises and equipment. When spotting dumbbell exercises, assistance, when needed, should always be given above the elbow joint, and for some exercises, on the dumbbell. Specific spotting positions will be shown for each exercise, when appropriate.

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

Attention must be given to proper and safe technique not only during the lifting set, but also in getting the weights from the floor to the starting position, and returning the weights when finished. The use of a spotter is recommended for many lifts.

KNEE BOOST TECHNIQUE:

Grasp dumbbells in a squat position, with back straight and looking ahead. (Figure 1)

Stand up. (Figure 2)

Sit down on bench. Rest dumbbells on thighs. (Figure 3)

If the exercise is to be done in the sitting position such as in the Military Press, lift up one leg to help "boost" a dumbbell into the starting position. (Figure 4) Repeat for the other dumbbell.

If the exercise is to be done lying down, such as in the Bench Press, lie back slowly. When your back is a few inches above the bench, lift one leg up to "boost" a dumbbell into the starting position, repeating with the other leg immediately. Practicing this technique with light weights is recommended.

A spotter's assistance to get the weight to the starting position is recommended if heavy weights are used, there is a history of back or shoulder injuries, or the "knee boost" technique cannot be mastered. After the lifter is in the proper lifting position, the spotter can hand the weight to the lifter. After the set, the spotter takes the weight from the lifter. (Figure 5)

AREAS INVOLVED: Neck, Trapezius

Sit or stand upright.

Place left hand on right side of head. Move head towards left shoulder, using hand to provide a gentle pull. Hold for ten seconds, then slightly increase the pull until slightly more tension is felt.

Repeat the sequence using the opposite side.

Neck Lateral Flexion | Sports Medicine Dr.

To increase the effectiveness of the stretch, stabilize the upper body by holding onto the under side of a chair or bench with the inactive arm.

AREAS INVOLVED: Posterior neck

Sit or stand upright.

Keeping your shoulders in a neutral position, let your head hang forward. For a greater pull, interlock your hands on the back of your head near the crown.

Gently pull down on your head, keeping your chin tucked towards your chest.

Hold for ten seconds, then gently increase the pull until slightly more tension is felt. Hold for ten seconds.

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Front Shoulder Stretch | Sports Medicine Dr.

AREAS INVOLVED: Chest, Shoulder, Biceps

Stand with your right arm straight and comfortably extended behind you and with your palm on the wall.

Slowly turn your body away from the wall until you feel mild tension.

Hold for ten seconds, then turn slightly farther until you feel slightly more tension.

Return to the starting position and repeat the sequence with the left arm.

Posterior Shoulder Stretch | Sports Medicine Dr.

AREAS INVOLVED: Posterior deltoids, Latissimus dorsi, Rotator cuff

Stand or sit with the right arm slightly flexed and pulled across the chest.

Grasp the upper arm just above the elbow, place the left hand below the triceps.

Pull the right arm across the chest (towards the left) with your left hand.

Hold for ten seconds, then gently increase the pull, until slightly more tension is felt. Hold for ten seconds.

Repeat the sequence on the opposite side.

Towel Stretch | Sports Medicine Dr.

AREAS INVOLVED: Shoulder girdle, Triceps, Latissimus dorsi

While standing, drop a towel behind back.

Reach behind back with your other arm to grab low on the towel. Pull down on towel until a mild tension is felt in the upper arm and shoulder. Hold for ten seconds.

Gently increase the pull on the towel until slightly more tension is felt. Hold for ten seconds.

Repeat on the other side.

Lat-Triceps Stretch | Sports Medicine Dr.

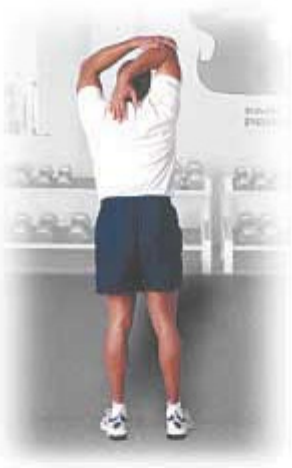


Figure 1

Figure 2

AREAS INVOLVED: Latissimus dorsi, Triceps

Stand upright and extend left arm over head.

Grab right elbow with left hand and relax the right arm and let it hang down towards the left scapula. (Figure 1)

Gently pull right elbow backward until mild tension is felt. Hold for ten seconds, then pull back slightly further for ten seconds.

To emphasize the latissimus dorsi and external obliques, hold the stretch position and gently lean down towards the side. (Figure 2)

Return to starting position and repeat sequence on the opposite side.

Calf Stretch | Sports Medicine Dr.

AREAS INVOLVED: Gastrocnemius, Soleus

Stand near an immovable object. Bend one leg forward and lean against object. Keeping the back leg straight and the heel on the floor, gently lean forward until mild tension in the calf is felt.

Hold for 15 seconds, then flex knee gently so that a mild tension is felt above the heel. (This emphasizes the soleus.) Hold for 15 seconds and return to the starting position.

Repeat sequence with the opposite leg.

AREAS INVOLVED: Groin, Lower back

Sit upright with the bottom of the feet touching each other.

Butterfly Stretch | Sports Medicine Dr.

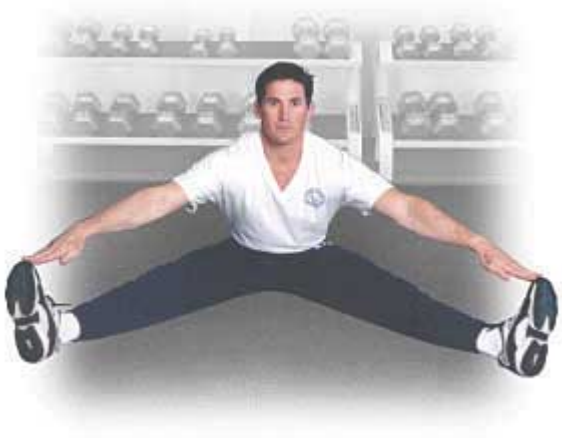
Push down on thighs or pull feet towards body to increase the level of stretch.

Bend forward at the waist, keeping the back flat, to a position where you feel mild tension.

Hold for ten seconds, then bend slightly farther to feel slightly more tension. Hold for ten seconds.

Return to starting position.

AREAS INVOLVED: Groin, Hamstrings, Lower back



STANDARD POSITION: Sit upright with legs straight.

Spread legs to a comfortable angle.

Keeping legs straight, but not locking knees, bend forward at the waist.

Hold for ten seconds, then push down slightly farther until slightly more tension is felt. Hold for ten seconds.

Return to starting position.

Repeat sequence, bending torso towards the left knee.

Return to starting position, and repeat sequence towards the right knee.

VARIATIONS:

Pointing toes or pulling toes towards the head will emphasize the lower part of the hamstrings.

Straddle Stretch | Sports Medicine Dr.

Pointing toes down away from the head emphasizes the upper portion of the hamstrings.

Keeping the head up and flattening the back while lowering the torso helps stretch the hamstrings.

Dropping the chin towards the chest and rounding the back will emphasize the back.

AREAS INVOLVED: Lower back, Hamstrings, Glutes

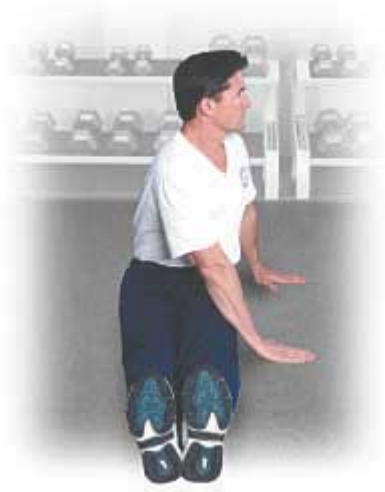
Sit with legs extended. Bend one knee up and out so that your foot is touching your knee.

Gently lean your trunk forward and reach down with both arms until a comfortable level of tension is felt. (Flattening the back will emphasize the hamstrings, rounding the back will emphasize the back.) Hold for ten seconds.

Gently reach farther forward until slightly more tension is felt.

Hold for ten seconds.

Upper Back Stretch | Sports Medicine Dr.



AREAS INVOLVED: Upper back, Posterior deltoids

Sit with legs extended in front.

Twist your upper back, crossing your right arm across your chest and putting your right hand on the floor. Your left arm is behind your torso with your left hand on the floor.

Gently twist until your feel mild tension. Hold for ten seconds, then gently twist further until slightly more tension is felt. Hold for ten seconds.

Return to starting position, and repeat the sequence on the opposite side.

AREAS INVOLVED: Quadriceps, Hip flexors, Abdominals

Lie on your left side, with your forearm flat and at a 45° angle to your torso. Upper arm is perpendicular to the floor.

Grab your right ankle and slowly pull back towards your right buttock, while pushing your right hip forward.

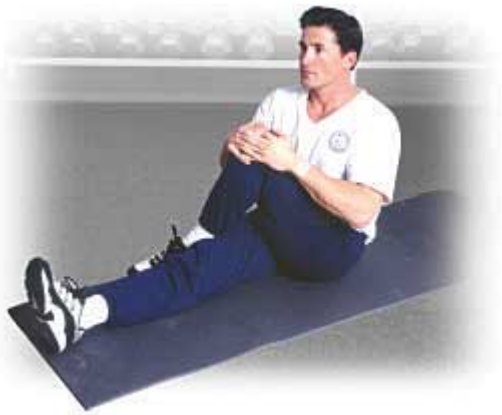
Side Quad Stretch | Sports Medicine Dr.

Move your knee backward and slightly upward.

Hold for ten seconds, then pull slightly farther until more tension is felt. Hold for another ten seconds.

Relax. Repeat sequence on your other leg.

Stop pulling if any discomfort is felt in the knee. Individuals with a history of knee problems should perform this stretch with caution.



AREAS INVOLVED: Glutes, Illiotibial band

Sit with legs straight in front of you.

Bend left leg and put your left foot on the floor on the outside of the right knee.

Grab your left knee and slowly pull towards your chest until you feel mild tension.

Hold for ten seconds, then pull slightly harder until slightly more tension is felt. Hold for ten seconds.

Relax. Repeat sequence on the other leg.

Single Leg Raise | Sports Medicine Dr.

AREAS INVOLVED: Glutes, Lower back, Hamstrings

Lay flat on back with knees bent.

Grab under left thigh and straighten left leg. Do not lock knee.

Hold for ten seconds, then pull slightly farther until you feel slightly more tension. Hold for ten seconds. Relax.

Repeat with other leg.

AREAS INVOLVED: Glutes, Lower back, Hamstrings

Lay flat on your back with knees bent.

Grab under left thigh and pull knee towards chest until you feel mild tension. Hold for ten seconds, then pull slightly farther until you feel slightly more tension. Hold for ten seconds.

Relax. Repeat sequence with other leg.

Knee to Chest Stretch | Sports Medicine Dr.

To emphasize the glutes and iliotibial band, pull knee towards the opposite shoulder.

To emphasize inner hamstrings and groin, pull knee towards the outside of the same shoulder.

AREAS INVOLVED: Lower back, Glutes

Lay on back with legs bent and both hands on knees.

Gently pull both knees towards your chest. Keep abdominals tight and try to flatten the small of your back. Hold for ten seconds.

Pull slightly harder for ten seconds and hold. Relax.

Front Torso Stretch | Sports Medicine Dr.

Figure1

Figure 2

AREAS INVOLVED: Abdominals, Groin

Lie on your stomach with your hands in the bottom push-up position (Figure 1).

Slowly lift the upper body, keeping the hips and lower body on the floor and looking straight ahead (Figure 2). Contract the gluteals to reduce the stress on the lower back. Hold for ten seconds, then gently lift upper body higher and contract gluteals harder until a slightly greater stretch is felt. Hold for ten seconds.

To decrease the difficulty of this stretch, it can be performed while keeping the elbows on the ground.

To emphasize the inner groin area, spread legs shoulder width apart, point toes outward, turn head towards right shoulder, and lean torso towards the left side. Repeat sequence on opposite side.

This stretch should not be performed if pain is felt in the lower back.

Angy Cat Stretch | Sports Medicine Dr.

Figure 1

Figure 2

AREAS INVOLVED: Upper and lower back, Shoulder girdles

Get on hands and knees and pull in your abdominal muscles. Drop your head forward and round (lift) your back as you tilt your pelvis (Figure 1). Hold for ten seconds. Gently increase the stretch until more tension is felt. Hold for ten seconds.

Drop hips down and back so that your buttocks touch your heels. Flatten your back and extend arms fully (Figure 2). Hold for ten seconds. Gently drop hips and back further until more tension is felt. Hold for ten seconds.

AREAS INVOLVED: Shoulder girdle, Back, Glutes, Hamstrings

Lie facedown with arms extended over your head on the floor.

Exhale as you slowly lift left arm and right leg 6 to 12 inches off the floor. Hold for ten seconds.

Gently increase the stretch until more tension is felt, hold for ten seconds.

Prone Extension | Sports Medicine Dr.

Look ahead and down at floor, so that head and neck remain neutral. Breathe normally.

Lower arm and leg and repeat with opposite limbs.

Figure 1

Figure 2

AREAS INVOLVED: Forearm extensors and flexors

Stand upright with your left arm extended.

Forearm Stretch | Sports Medicine Dr.

With your left arm facing down (pronated), grasp your left fingers with your right hand.

Gently pull your hand down until mild tension is felt on the top of the forearm (Figure 1). Hold for ten seconds, then pull slightly harder until more tension is felt. Hold for ten more seconds, then relax.

Repeat the sequence with your palm facing up (supinated) (Figure 2). The stretch should be felt on the inside of your forearm.

Repeat sequence with your right arm.

Fitness Manual Acknowledgements

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Special Operations Bureau Los Angeles County Fire Department

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Special thanks to:

Fire Captain Derek Alkonis

Fire Captain Brian Bennett

Fire Captain Mark Griffen

Fire Fighter Specialist Dennis Cross

Firefighter Jan Chatelain