

City of Monterey Fire Department

Physical Fitness Program

A Comprehensive Firefighter Fitness Program Designed to Address the Demands of the Occupational Safety and Health of the Professional Firefighter

Revised 12/23/99

Fire Chief's Philosophy: It is the belief and conviction of the Chief of the Monterey Fire Department that the fitness of all represented employees of the department is critical to their safety and well-being. In addition, a high level of overall physical fitness is necessary to enable the members to function at the level needed to properly and safely carry out the demands of the profession. Further, this level of physical fitness, coupled with the mental discipline expected of the firefighter professional can mean the difference between life and death, a full and productive career, and a positive emotional state. Professional firefighters have a responsibility to maintain physical fitness, and the department has a responsibility to support them.

Goal: It is the goal of the Monterey Fire Department to implement a physical fitness program which will enable the development and maintenance of the physical fitness necessary to support a long and productive career, safely perform the assigned functions of the job, reduce the probability and severity of occupational injuries and illnesses, and to reduce the impact of environmental and physiological stressors encountered in the profession.

Objective: To aggressively work to change the culture and status quo of the department to embrace a program that includes the following objectives and to comply, insofar as possible, with nationally recognized fire service standards, such as NFPA: (1)

To provide a medical evaluation of all employees on a regular basis as determined by the Fire Chief, (2) To provide a comprehensive physical fitness program for all employees; (3) To establish and maintain a confidential health database for all employees; (4) To provide and maintain an injury and illness prevention program within the department as required by law; (5) To provide access to appropriate and effective medical treatment for work related injuries and illnesses; (6) To provide access to employee assistance programs to enable the employee to maintain positive physical and emotional conditioning; (7) To provide critical incident stress debriefing to all employees when exposure to situations warrant.

Components:

Physical Exercise
On-Duty time for Participation in the Exercise Program
Fitness Equipment / Apparatus
Fitness Counseling / Training
Medical / Physical Examinations & Consultation
Employee Assistance Program
Critical Incident Stress Debriefing
Injury and Illness Prevention Program
Confidential Employee Fitness / Health Data Base
Worker's Compensation Program
Department Policy and Procedures
Regular Review and Improvement of the Program

Description of the Program: This program is intended to build on the following components already in place in the department: The initial and periodic medical evaluations, Employee Assistance Program, Sports Center access (Pass), Injury and Illness Prevention Program, Worker's Compensation medical evaluation and treatment, on-duty time for physical exercise and the provision and maintenance of fitness equipment in the fire stations.

To the existing components, the following new components will be introduced: (1) Fitness counseling provided by a trained Fitness Trainer/Counselor; (2) Confidential Employee Fitness and Health Data base; (3) Supporting Departmental Policy and Procedures; and (4) Ongoing evaluation and improvement of the program, based on input from informed personnel, fitness data analysis, changing job requirements, and the availability of resources.

Fitness Counseling: The Monterey Fire Department will retain a Fitness Trainer/Counselor to provide fitness assessment, counseling, and training to employees of the department. The Fitness Trainer/Counselor will also assist the Fire Chief, or designee, in the development and maintenance of the physical fitness program to include a health database and ongoing evaluation with recommended program adjustments. The health data base regarding each employee shall be confidential between the employee and Trainer/Counselor. The Trainer/Counselor shall provide the

Department general data about the results of the physical fitness program without reference to any individual employee.

Physical Fitness Exercise: All employees subject to this program may participate in an on duty exercise program.

A minimum of one and one-half hours each work day will be provided as the exercise period, depending on operational impacts and scheduled duties. All on-duty personnel are required to participate in the Department Physical Fitness Program at least at a minimum level. This minimum level requires exercise for warm-up and flexibility, as guided for each employee by the Physical Fitness Trainer/Counselor, during the beginning of the work shift, depending on operational impacts and scheduled duties.

Exercises authorized under the fitness program shall take place on premise as guided by the fitness Trainer/Counselor, consistent with applicable policy and procedure. Exercise approved under this proposal by off-duty personnel may be authorized by the on-duty Duty Chief or Duty Officer using department facilities (subject to operational impacts). Off duty exercise will not be counted as time worked and shall not be compensable. Fitness prescriptions or programs at the direction of a medical doctor, physical therapist or other health practitioner may be used if approved in writing by the Fire Chief.

Exercises that are considered job-related are listed below. Physical fitness activities that are not listed below is not considered job-related for the purposes of Worker's Compensation liability.

The exercise period will be divided into the following elements:

1. Warm Up
2. Flexibility
3. Strength
4. Endurance
5. Cool Down

Special prescriptive exercises may be substituted that address injury rehabilitation, weight reduction, or programs necessary to balance overall fitness of the employee when prescribed in writing and approved by the Fire Chief.

Warm Up: (10 minutes)

Choice or combination of:
Walking
Stationary Cycling
Chest and Shoulder Stretch
Arm Rotations
Lunges

Exhibit I – Physical Fitness Program

Shoulder Rotations
Hamstring Stretch
No Hands Squat

Flexibility: (10-15 minutes)

Perform stretches slowly until you reach the position where tension (not pain) is felt in the muscle. Hold for 5 – 10 seconds. Repeat each stretch several (no less than three) times. Do not bounce or jerk during the stretching motion.

Daily Dozen
Arm Stretch
Sitting Stretch
Side Rotation Stretch
Double Stretch
Sky Stretch
Side Stretch
Floor Stretch
Leg Arch
Knee Swing
Pedal Stretch
Horizontal Leg Stretch
Leg Extension

-or-

Nautilus Baker's Dozen

Shoulder Rolls
Arm-Overhead Triceps Stretch
Triceps Stretch across Body
Chest and Shoulders
Side Stretch
Calf Stretch
Achilles Stretch
Standing Quadriceps Pull
Groin Stretch
Single-Leg Hamstring Stretch
Dual Hamstring Stretch
Spinal Twist
Knee Pull to Chest

Strength: (15 – 25 minutes)

Abdominal Crunches I – 2 sets / 20 – 30 repetitions
Oblique Crunches I – 2 sets / 20 – 30 repetitions

Exhibit I – Physical Fitness Program

Good Mornings I – 2 sets / 20 repetitions
Bench Press I – 2 sets / 10 – 12 repetitions
Pullovers I – 2 sets / 20 repetitions
Pushups or Gravitron I – 2 sets / 10 – 20 repetitions
Dead Lifts I – 2 sets / 10 – 12 repetitions
Curls I – 2 sets / 10 – 12 repetitions
Squats I – 2 sets / 10 – 20 repetitions
Lunges, Hack-Squats or Modified Squats I – 2 sets / 10 – 12 repetitions

Endurance: (20 – 30 minutes)

Choice / Combination of:
Stationary Bike
Stepper
Treadmill
Running (Jogging)
Rowing
Jump Rope
Stationary Skier
Aerobic Dancing

Cool Down: (10 minutes)

Gentle Jogging Walking Gentle Stationary
Cycling (no resistance)

Fitness Equipment/Apparatus* and Number per Station:

Mini-power rack (1)
0 – 90 degree adjustable bench (1)
400# Olympic Barbell Set (1)
Fixed Dumbbell Set (109-509) (1)
Gravitron (1)
Stationary Cycle (2) Station 11; (1) Stations 12, & 13
Versa Climber (1)
Treadmill (1)
Rowing Machine (1)
Stationary Skier (1)
Reverse Hyper (1 only for entire department)

* Equipment may vary depending on space available. The above list is provided as guidance and is not intended to bind the City to purchase all of the equipment listed.

Employee Fitness & Health Data Base: Pending development of specific information and methods of maintaining confidential data.

This component may include software applications to assist the Trainer/Counselor in assessment of employees and data base management.

Departmental Review: This component is pending development; however, it is intended to commit the department to a regular evaluation of the program and its impacts on the employees.

Phasing: The physical fitness program will contain the following ongoing elements:

1. Review and update policy/procedure guidelines and other supporting documentation through the department's physical fitness project.
2. Provide fitness equipment
3. Provide and maintain a contract physical fitness Trainer/Counselor to provide fitness counseling and training.
4. Under the guidance of the physical fitness Trainer/Counselor, conduct annual fitness evaluations.
5. With the cooperation of the fitness Trainer/Counselor, create a health database that is confidential regarding individual employees.
6. Create, schedule, and process evaluation and improvement of the fitness program with the guidance of the physical fitness Trainer/Counselor, the department's fitness program and management staff.

Daily Dozen

Start out gently with these stretching exercises and work your muscles at their own pace. You will soon move more easily and your chances of suffering from sore joints and lower back pain will diminish. Take a deep breath after each stretch.

Arm Stretch

Hold one arm straight out from your side. Level with the shoulders. Make an arc by raising your arm straight up, then lowering it to your side. Hold your arm out again. Swing it across your chest as far as is comfortable. Swing it toward your back as far as it will comfortably go. Now hold your arm straight in front of you, bending your elbow in a right angle with the palm toward the floor. Without moving your upper arm, move forearm straight up and then straight down. Alternate arms.

Sitting Stretch

Sit on the floor with your legs extended at least 6 to 10 inches apart. Bend forward with arms outstretched as far as you can and hold the position for 3 to 10 seconds. Do not strain or bounce.

Side Stretch

Make three imaginary marks at shoulder height on a wall at about one-foot intervals. Stand with your back to the wall, an arm's length away. Extend one arm and twist your body, touching each mark with your hand. Reach as far as possible. Change sides and repeat.

Double Stretch

Using the same marks as for the side stretch, stand three feet from the wall. With your back to the wall and your feet about two feet apart, bend and touch the floor. Straighten up. Twist your body and touch the marks on the wall. Return to starting position and repeat, this time twisting to the other side.

Sky Stretch

Stand with your feet spread apart. Clasp your hands high above your head. Lean your head back and look up. Stretch your shoulder muscles as if you were reaching for the sky. Hold for several seconds, or as long as is comfortable. Relax. Repeat two to four times.

Side Stretch

Stand straight with your legs spread comfortably. Clasp your hands above your head. Lean from the waist to the right as far as is comfortable without moving your hip. Repeat, leaning to the left.

Floor Touch

Stand erect with your legs spread. Bring your hands together in front of you. Bend at the waist and try to touch the floor. Don't strain! Hold for 10 seconds. Return to starting position and repeat.

Leg Arc

Stand straight with your arms at your sides. In one continuous motion, swing your leg straight out to one side. Swing it back across your other leg as far as comfortably possible. Return to starting position and repeat with the other leg.

Knee Swing

Lie on your back with your arms outstretched and palms down. Keeping your ankles together. Raise your knees to your chest and roll your knees to touch the floor, first on one side, then the other. Keep your hands and shoulders firmly on the floor. Repeat 15 to 30 times.

Pedal Stretch

Lie on your right side with your head resting on your outstretched arm and the palm of your left hand or the floor in front of your chest. Raise your legs slightly off the floor and pedal for 10 seconds as if you were riding a bicycle. Switch sides and repeat.

Horizontal Leg Stretch

Lie on your back with both legs outstretched. Bend your right knee and raise it until your foot is a few inches off the floor, keeping your hips straight, slide your left leg to the left

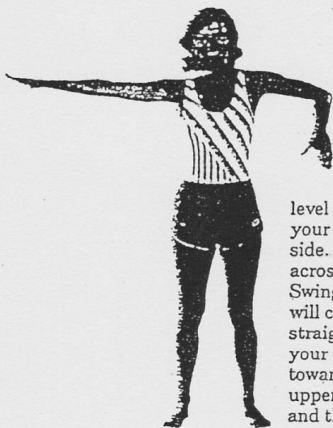
along the floor. Slide it back and lower the other leg. Repeat the exercise, alternating legs.

Leg Extension

Lie on your back with one knee bent and your foot on the floor. Slowly raise the other leg to a vertical position, or as far as is comfortably possible. Lower it slowly. Repeat with the other leg.

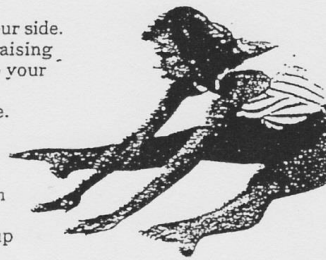
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Double Stretch

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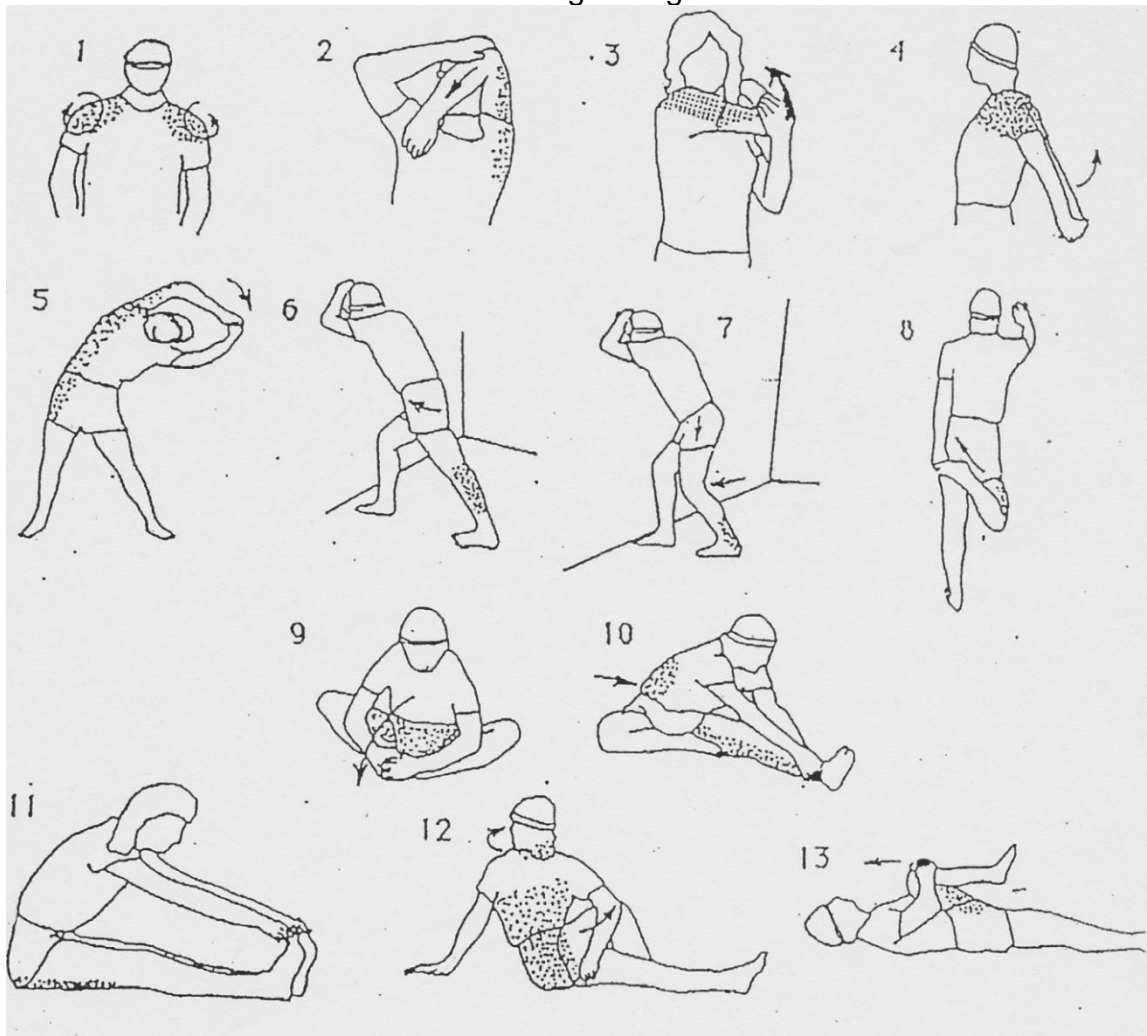
THE NAUTILUS BAKER'S DOZEN – STRETCHING ROUTINE

The following stretching routine should be used prior to your workout. There are many other alternative stretches and modifications that you could substitute for the ones which appear here. Stretching, as part of your warm-up, is important to reduce your risk of injury. When stretching, follow these guidelines:

- * Warm-up for 4-5 minutes on the bicycles or treadmill prior to stretching. Perform the stretch slowly, until you reach the position where tension (not pain!) is felt in the muscle, and then hold for 5-10 seconds. Repeat each several times.

- * Do not stretch with a bouncing or jerking motion. You should stretch before and after your workouts.

- * Remember to continue breathing during the various stretches.



Barbells and Dumbbells

The barbell and dumbbell exercises described here are designed to build muscle, improve muscular strength and endurance and firm the entire body. This combination of exercises works every major muscle.

Squat

Bend at the waist and grasp the bar in an overhand grip (palms down). Flexing the knees, stand up, curl the bar to your chest, press it overhead and lower it to your shoulders with feet spread comfortably and toes pointed outward for balance. Squat slowly until your thighs are parallel to the floor. Return to the standing position. Try to keep your back and head straight throughout and be sure to keep your feet flat on the floor.

Toe Raise

Lift the bar to your shoulders as in the squat exercise, keeping your back straight and your head up. Raise your heels off the floor as far as possible. Return to the starting – position.

Curl

Stand with your back straight, your head up and your feet slightly spread. Grasp the bar in an underhand curl (palms up) with arms fully extended. Then slowly curl the bar up to your chest. Hold for a count of 2 and lower it slowly to the starting position. Be careful to lower the bar slowly rather than letting it drop from its own weight. Keep the bar under control at all times.

Dead lift

Bend at the knees and grasp the bar in an overhand grip. Stand up, bringing the bar with you letting it hang with arms fully extended. Make sure your back is straight and your head up when you are in the standing position.

Upright Row

Stand with your back straight and your head up. Hold the bar in an over hand grip with arms fully extended. Keep your hands about 6 inches apart. Slowly raise the bar above the front of your body until your hands are under your chin. Lower it slowly to the starting position and repeat.

Bent Row

Bend over at the waist keeping your back as flat as possible and your head up. Grasp the bar in a widely-spaced overhand grip and raise it slowly to your chest. Lower it slowly to the floor and repeat. Bend your knees if necessary.

Good Morning

Stand straight with the bar on your shoulders and your feet comfortably spread. Then bend over at the waist until your chest is parallel to the floor. Keep your back as flat as possible throughout this exercise. *Caution:* Do not attempt this exercise if you have back problems.

Bench Press

Lie on your back on a bench or the floor with your back flat against the surface and the bar over your chest. Slowly press the bar straight up until your arms are fully extended, then lower it slowly to the starting position.

Triceps Extension

Stand erect with the bar pressed straight over head. Your hands should be about 8 inches apart, then lower the bar slowly behind your head by bending your elbows. Slowly raise the bar to the starting position and repeat.

Press behind the Neck

Stand erect with the bar resting on your shoulders. Press the bar directly up over your head and lower it slowly to the starting position.

Dumbbell Press

Stand with your feet comfortably spread and a dumbbell in each hand at shoulder level. Alternately press one dumbbell and then the other straight up, with your arm fully extended.

Shoulder Extension

Lie flat on a bench or the floor with the dumbbell held in both hands behind your head. Keeping your arms straight, bring the dumbbell to a position over your chest. Return to the starting position.

Dumbbell Swing

Stand with your legs spread and hold the dumbbell directly over your head with both hands. Then swing the dumbbell in a wide arc down in front of you and between your legs as far as you can without straining. You'll have to bend your knees to do this properly. Reverse the process and swing the dumbbell back up to the starting position.

Dumbbell Fly

Lie flat on a bench or the floor with a dumbbell in each hand and your arms extended directly over your chest. Slowly lower the dumbbells directly out to the sides until your arms are parallel with the floor. Then bring the dumbbells back to the starting position. Be sure to lower slowly to prevent strain on your arms.

Exhibit I – Physical Fitness Program