



Cambridge Health Alliance
A COMMUNITY OF CARING

A stylized graphic of fire in yellow, red, and blue colors, with the text "First Responder Wellness Program" overlaid.

First Responder Wellness Program

Firefighter Fitness



Co-developed by the
Cambridge Health Alliance Victims of Violence Program
and the Cambridge Fire Department & Local Union 30

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FRWP Program Overview

The First Responder Wellness Program (FRWP) History

The FRWP provides supportive health and wellness information for first responders impacted by the events of September 11, 2001. The program was originally co-designed by Local 30 and the Cambridge Fire Department in conjunction with the Cambridge Health Alliance Victims of Violence (VOV) Program in 2003 to provide wellness services to First Responders and facilitate the implementation of the IAFF/IAFC Fire Service Joint Labor/Management Wellness/Fitness Initiative. The program has been expanded to offer health and wellness services to all Greater Boston first responders and uniformed personnel. The goals of the FRWP are to promote wellness, alleviate and prevent stress, and alleviate secondary traumatic stress.

About the Wellness Program Staff

First Responder Wellness Program services are provided by skilled staff with varying qualifications including masters level and licensed clinicians certified and experienced in Critical Incident Stress Management (CISM) who possess knowledge and experience working with first responders. First Responder Wellness staff work collaboratively with members of first responder communities to provide services unique to each Greater Boston first responders group (ie. Firefighters, police, EMT's, CISM teams, and mental health providers.) Staff members are also trained and knowledgeable in areas of trauma, secondary trauma and bereavement.

Core Staff:

Lynda Bolduc-Hicks, LMHC, Psy.D., Program Coordinator, lbolduc-hicks@challiance.org

Meghan Gehan, LCSW, Assistant Coordinator and Coach, mgehan@challiance.org

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Presenter bios

Anita Chase, MS, ATC, CSCS

For the past three years Anita has been employed as an athletic trainer at Tufts University. She provides injury prevention, evaluation, and rehabilitation for athletes participating in several sports, including football, basketball, and track, and finds it to be an extremely rewarding career. Prior to joining the Tufts sports medicine team, Anita worked at a high school in CT as head athletic trainer and strength coach. While in graduate school, she was a personal trainer for Bally Total Fitness. Anita has a Bachelors degree in Biology and a Masters degree in Physical Education, with an Athletic Training concentration, and is nationally certified in athletic training, personal training, and strength and conditioning. Her passion for fitness resulted from her gymnastics background, and since retiring from the sport, she has become a recreational triathlete. She is very excited to be involved with the First Responder Wellness Program, and looks forward to working with the Revere fire department.

Contact information: anita.chase@tufts.edu, wk (617) 627-5102, or cell (401) 741-3516

Donna Nielsen

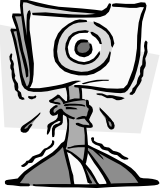
Donna has been actively involved in the fitness field for over 18 years with several national certifications such as ACE, NETA, MAD DOGG Athletics, AEA, Reebok, YMCA of The USA, and is a competitive member of Comprehensive Racing Team, LWAC, and USAT Triathlon team member. Donna lectures in Kinesiology, and teaches fitness classes at North Shore Community College at both Danvers' and Lynn campus'. Donna also lectures on Health and Wellness, and Police officer stress at The Reading Police Academy, as well as administering fitness testing.

One of Donna's pride & joys lies in her Boot Camp business, LYNN WOODS BOOT CAMP, which was featured in *The Boston Globe*, November 2006, "They sweat by dawn!" Her 5am class running and doing obstacle courses through the woods became so successful that she just added a new BEACH BOOT CAMP, in Nahant at 6:30pm. Donna offers a discount to both Police Officers and Firefighters that wish to enroll in Boot Camp.

Donna is also an avid trail runner and has competed in several mountain races, including Mt. Washington, Mt. Wachusett, Stonecat Trail marathon and the grueling Seven Sisters Trail race.

Contact information: www.trifitness.us, Donna@trifitness.us, or (978) 257-3891

ERGONOMICS AND THE FIRE FIGHTER



Ergonomics is the practice of making the work environment safer and more productive for the worker.

General workplace ergonomic risks - forceful exertions, awkward postures, localized contact stress, vibration, environmental conditions, and repetitive prolonged activity. The closer to the fire ground the higher the incidence of injury.

See table "Common fire fighting/EMS activities involving ergonomic hazards" on next page.



The leading numbers of Fire Fighter injuries (39.7%) are due to sprains, strains and muscular pain from overexertion or falls (1990-1994), the back being the greatest occurrence of injury.

Most job-related injuries that an ergonomic approach intends to minimize occur over time and are not of the acute type.



Keeping yourselves fit and strong while using an ergonomic approach as much as possible will help reduce the incidence and severity of strains and sprains. It is estimated that it is 34% cheaper to fund a department Fitness program than continue to pay for time lost, medical and staff replacement costs.

(Bly, JL, Jones, RC, & Richardson, JE (1986). Impact of worksite health promotion on health care costs and utilization. Evaluation of Johnson & Johnson's Live for Life program. *JAMA*, 256, 3235-3240.)

COMMON FIRE FIGHTING/EMS ACTIVITIES INVOLVING ERGONOMIC HAZARDS
<p>High-Rise Fires</p> <ul style="list-style-type: none"> • Moving equipment and high-rise packs to the fire floor while wearing full turnout gear. • Moving additional equipment (tools, extra air tanks, etc.) to staging area immediately below the fire floor.
<p>Ventilation and Overhaul Procedures</p> <ul style="list-style-type: none"> • Breaking through a roof while on a ladder or a pitched roof. • Using a pike pole to pull down a ceiling.
<p>Hose Laying Operations</p> <ul style="list-style-type: none"> • Dragging a charged hose through a fire site, both inside (hallways/stairs) and outside (obstacles/icy conditions). • Directing a hose for an extended period of time. • Laying a hose to a fire site from a distant hydrant.
<p>Ladder Work</p> <ul style="list-style-type: none"> • Rescuing a victim from a roof or window using a ladder. • Raising ladders while under-manned. • Using an axe while on a ladder.
<p>Forcible Entry</p> <ul style="list-style-type: none"> • Entry through steel security doors using hand tools. • Using hand tools and power equipment to open a wall.
<p>Extrications</p> <ul style="list-style-type: none"> • Using hand and power tools in confirmed areas to extricate victims. • Using heavy hydraulic equipment in auto extrication. • Moving victims from a damaged car or collapsed building. • Moving or salvaging furniture.
<p>Extended Procedures</p> <ul style="list-style-type: none"> • Fighting fires for extended time period and conducting lengthy extrication procedures (automobile crashes, industrial fires, train derailment).
<p>Emergency Medical Operations</p> <ul style="list-style-type: none"> • Carrying first response kits from ambulance or apparatus to accident scene. • Moving victims from multistory buildings or homes using stairways. • Moving patients onto and off stretchers/gurneys and loading stretchers/gurneys into ambulances.

Table from Fire and Emergency Medical Services Ergonomics. USFA 1996

Is Physical Activity Safe for Me?

Most healthy adults can increase their level of moderate physical activity without an extensive medical exam. Moderate activities are defined as brisk walking or other usual daily activity equal to brisk walking.

You may need to check with your doctor before beginning or changing your physical activity habits. To find out, circle yes or no for each question as it applies to you.

- | | | |
|--|------------|-----------|
| 1) Has your doctor ever said you have heart or lung trouble and recommended only medically supervised activity? | YES | NO |
| 2) Do you often have pain or pressure in your mid-chest, left neck, shoulder, or arm during or right after physical activity? | YES | NO |
| 3) Have you developed chest pain over the last month? | YES | NO |
| 4) Do you tend to lose consciousness or fall down due to dizziness? | YES | NO |
| 5) Do you feel extremely breathless after mild exertion? | YES | NO |
| 6) Has your doctor ever told you to take medication for your blood pressure or heart condition? | YES | NO |
| 7) Has your doctor said you have a bone or joint problems that could be made worse by the proposed activity? | YES | NO |
| 8) Is there a medical condition or physical reason, not listed here (e.g. diabetes), that might need special attention in an exercise program? | YES | NO |
| 9) Are you middle-aged or older, physically inactive, and planning a fairly vigorous exercise program? | YES | NO |

If you answered *yes* to any of these questions, talk to your doctor by phone or in person before increasing your physical activity. Tell him or her about the question to which you answered *yes*. Depending upon your needs, your doctor may recommend either unrestricted physical activity or a supervised activity program.

If you answered *no* to all the questions, you can be fairly sure that it is safe for you to start a moderate physical activity program that is slowly increased over time. If you feel any of the physical symptoms listed in questions 2,3,4, or 5, get medical help right away.

If you have a temporary minor illness, such as a cold, or if you have a fever, wait until you are better to being your activity.

Safety Tips

By following a few practical guidelines, you can ensure that your physical activity is always safe and fun !

- Most people can begin a moderate activity program with little supervision.
- Be sure to see a physician before beginning and intense or strenuous exercise program.
- If you are just starting to be active regularly, start slowly and gradually increase duration, intensity and frequency.
- Be active with a partner, when possible.
- Drink plenty of water before, during and after exercise.
- Stop exercising if you feel pain.
- Always follow instructions and safety recommendations when using exercise equipment or machinery.
- Wear proper clothing, including comfortable and appropriate shoes.
- Wear safety gear, including helmets and padding, when necessary.
- Obey traffic rules, or avoid traffic by using parks and trails.
- If you are outdoors at night, choose well-lit areas and wear reflective clothing.
- Avoid outdoor activities in extremely hot or cold weather.
- Wear sunscreen and sun-protective clothing when outdoors, and avoid the midday sun.
- If you experience lightheadedness chest pain excessive fatigue, nausea, or moderate to severe muscle or joint pain, stop exercising and consult a physician.

When you are injured:

- Seek immediate medical attention if you have a serious injury.

See your doctor if:

- You experience extreme or persistent pain.
- You have an injury that does not heal in a reasonable amount of time.
- You develop a fever or an infection.
- You have a joint injury that results in swelling.

If you have an injury that is not serious, follow the RICE principle:

Rest the injured area;

Ice the area immediately to reduce swelling;

Compress the area with an elastic bandage or cloth to reduce swelling;

Elevate the injured area.

** Safety Tips offered by the American Cancer Society Active for Life Program.*

HEALTH SCREENING FORM

Client # _____

Date: _____

Past Medical History

Have you ever, or do you now have any of the following:

Asthma	High Blood Pressure	Chronic Fatigue
Anemia	Low Blood Pressure	Family History of CVD
Arthritis	Heart Attack (s)	Substance Abuse
Diabetes	Angina	Broken Bone (s)
Dizziness	Shortness Of Breath	Low Back Pain
Pregnancy	Emphysema	Eating Disorders
Cancer	Tuberculosis	High Cholesterol
Epilepsy	Mono	Amenorrhea
Hearnia (s)	Allergies	Hepatitis
Fainting	Stroke	HIV
Bronchitis	Thyroid Problems	Heart Murmur
Arteriosclerosis	Atherosclerosis	Allergic to Medication
Chest Pain while exercising	Chest pain at rest	

If you checked any of the above please specify:

Do you have any past or current medical problems not mentioned above that would prohibit you for participating in an exercise program?

Do you take any medications, vitamins or nutritional supplements? If yes, why?

Was there a specific cause or incident that motivated you to start exercising? (please explain)

CARDIAC RISK PROFILE

NUMBER: _____

DATE: _____

AGE	10-20 1	21-30 2	31-40 3	41-50 4	51-60 6	60+ 8
HEREDITY	No known history of H.D. 1	1 relative w/ H.D. over 60 2	2 relatives w/ H.D. over 60 3	1 relative w/ H.D. under 60 4	2 relatives w/ H.D. under 60 6	3 relatives w/ H.D. under 60 7
WEIGHT	+5 lbs. Below weight 0	-5 to 5 lbs. Of weight 1	6-20 lbs over weight 2	21-35 lbs. Over weight 3	36-50 lbs. Over weight 5	51-65 lbs. Over weight 7
SMOKING	Non user 0	Cigar and/or Pipe 1	10 or less 2	20 a day 3	30 a day 6	40+ a day 10
EXERCISE	Intense work and recreational exertion 1	Mod. work + rec. exertion. Intense rec. exertion 2	Sedentary work and moderate recreational exertion 3	Sedentary work and light recreational exertion 5	Sedentary work and exercise 6	Complete lack of exertion 8
CHOLESTEROL	Below 180 mg. 1	181-205 mg. 2	206-230 mg. Or Don't know. 3	231-255 mg. 4	256-280 mg. 5	281-300 mg. 7
BLOOD PRESSURE	100 systolic 1	120 systolic 2	140 Systolic 3	160 Systolic 4	180 Systolic 5	200 + Systolic 7
GENDER	Female 1	Female 45+ 2	Male 4	Bald Male 5	Bald Short Male 6	Bald Short Stocky Male 7
STRESS	No real work or personal pressure 1	Rare work or personal pressure 2	Moderate work or personal pressure 3	Use pills or drink for stress 4	Always need pills or drink for stress 5	Can't seem to cope. Seeing an M.D. 6
DIABETES	Low blood sugar 1	Normal or don't know 2	High sugar controlled by diet 3	High sugar controlled by tablets 4	Diabetic on Insulin w/ no complications 5	Diabetic with complications 6

TOTAL: _____

8 – 15..... Risk well below average

24 – 32.... Risk generally average

42 – 50.... Risk at a dangerous level

16 – 32..... Risk below average

33 – 41..... Risk moderate

51 – 74..... Danger Urgent!! Reduce risk

**First Responder Wellness Program
Fitness / Wellness Consultation Form**

Please complete the following information to the best of your ability with the personal trainer meeting with you.

By signing below you acknowledge that there are certain risks involved in participating in an exercise program, and waive the right to hold the facility or the trainer liable.

Code number: _____

1) I have read and completed the "Is Physical Activity Safe for me" form and acknowledge that if I answered yes to any of the questions on that form it is my responsibility to contact my physician before beginning any physical activity with this Wellness Program.

2) Please give a short summary of your exercise history (type of exercise, frequency, intensity and any changes in activity level)

3) List one goal you wish to work towards during your participation in the First Responder Wellness Fitness Program.

4) How will you measure your goal? _____

5) How will you know that you achieved your goal? _____

Print Name: _____

Signature: _____

Date: _____

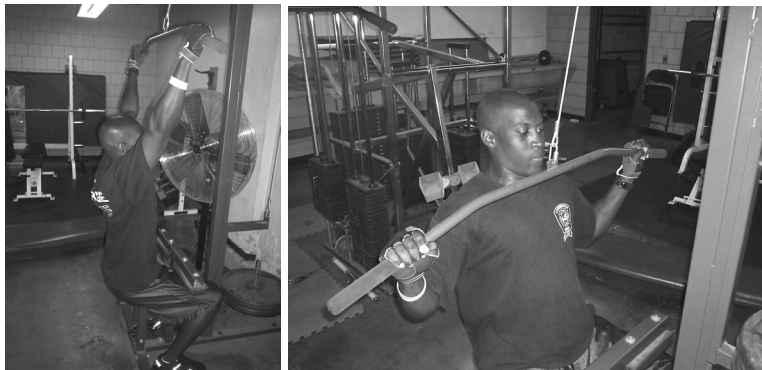
Trainers Signature: _____

Date: _____

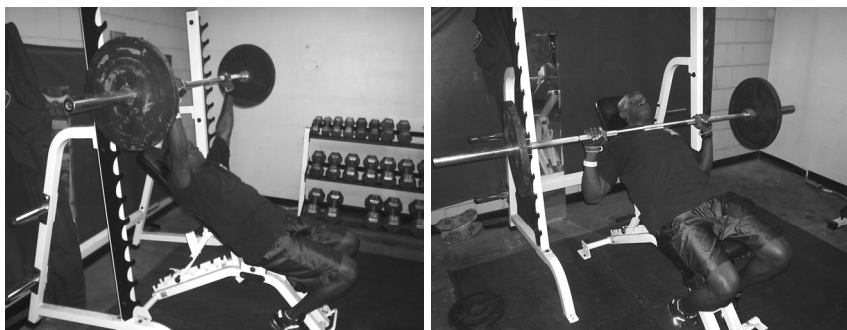
STRENGTH PROGRAM FOR THE FIRE FIGHTER

Exercise	Major Muscle Used	Fire ground Activity
Lat Pull down	Latissimus Dorsi	Pulling ceilings or hose
Incline Bench Press	Pectorals	Raising equipment, ladders, crawling
Military Press	Deltoids	Raising ladders
Shrugs	Trapezius	Wearing air tank
Biceps curls	Biceps	Tool usage
Tricep Extensions	Triceps	Opening walls, roofs
Leg extension	Quadriceps	Climbing ladders, stairs
Leg curls	Hamstrings	Climbing down from stair, ladders
Forearm curls	Flexors and extenders	Grip strength on tools
Sit ups	Abdominus rectus	Everything

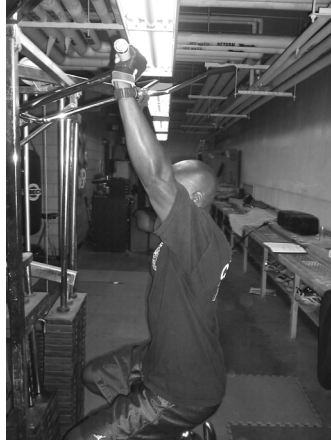
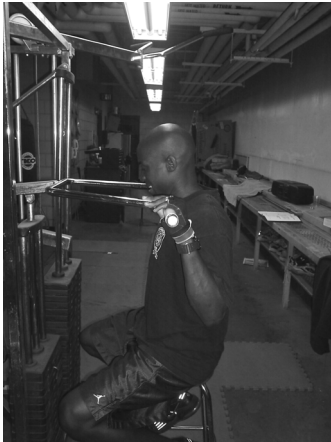
Lat Pull Down



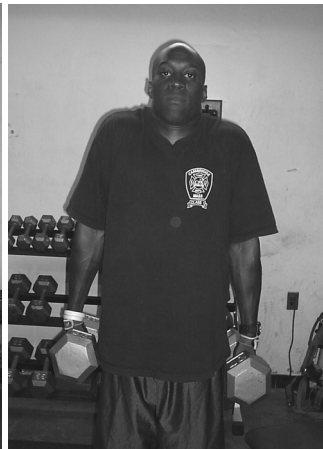
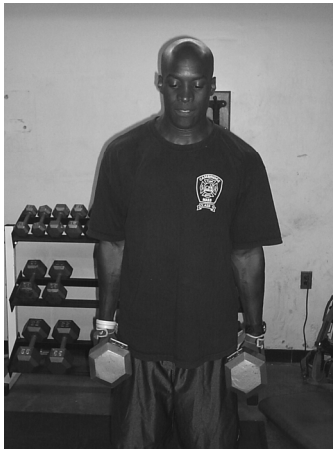
Incline Bench Press



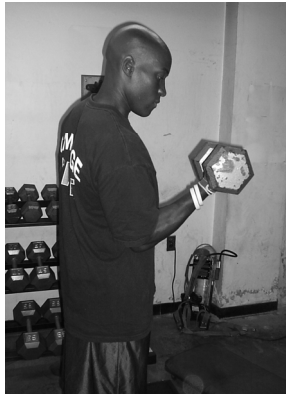
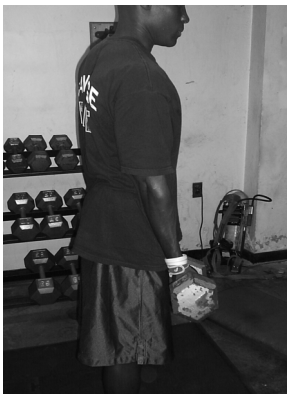
Military Press



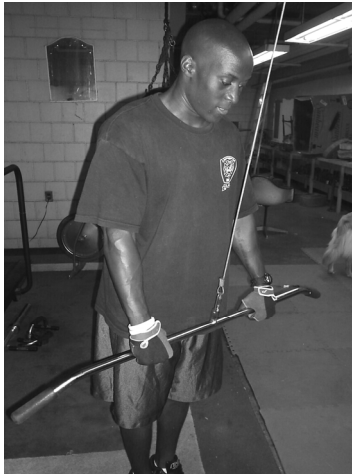
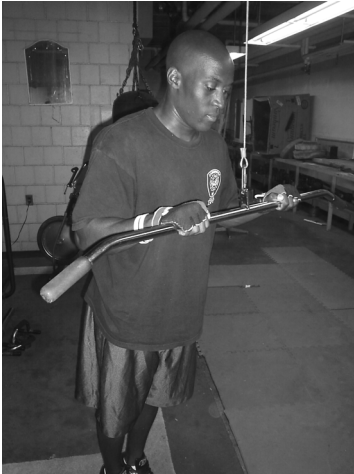
Shrugs



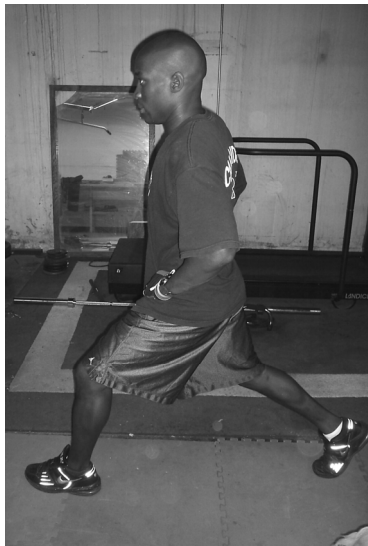
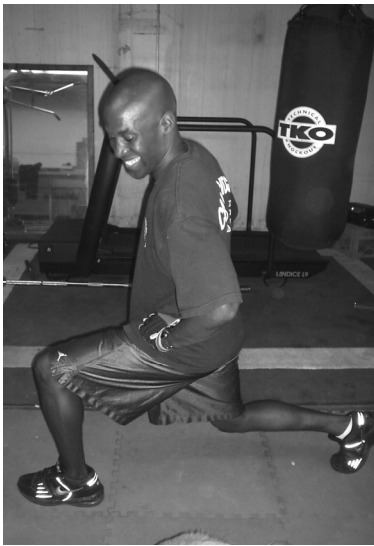
Bicep Curls



Tricep Extensions



Lunges



Forearm Curls



Resources

There are many resources online and in print that you can use to help you set goals for fitness, keep track of your exercise regimen, or help motivate you. The following are a small selection of resources you might find useful:

The American Council on Exercise
www.acefitness.org

The National Strength and Conditioning Association
www.nasca-lift.org

Health & Fitness @ Firehouse.com
<http://cms.firehouse.com/content/section/content.jsp?sectionId=11>

The IAFC info on the Wellness/Fitness Initiative
www.iafc.org/displaycommon.cfm?an=1&subarticlenbr=382

Health & Safety - IAFF.org
www.iaff.org/safe/content/wellness/index.htm

Downloadable resources at Strengthcats.com
www.strengthcats.com/firepower.htm

US Fire Administration - Firefighter Fitness-Wellness
www.usfa.dhs.gov/research/safety/fitness.shtm

Jeremy Collins - Firefighter and ACE Certified Peer Firefighter Trainer for the City of Cambridge.
www.rhoderunner.org or (617) 201-7719

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