

# Fitness Program Recommendations:

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The District values its employees as its most important resource. As such, the District is dedicated to the wellbeing of its members. Tualatin Valley Fire & Rescue is committed to improving and maintaining employee wellness, specifically in terms of physical fitness.

The benefits gained from living a healthy lifestyle are innumerable. Individuals who consistently participate in physical activity are generally healthier, more fit, and able to endure greater stresses and strains that come from activities of daily life (including the workplace).

A firefighter's level of personal fitness is directly related to his/her levels of health, wellbeing, self-esteem, and overall job performance. This is not to say that lack of personal fitness is detrimental to any of these areas; however, improved physical fitness has been proven to enhance one's ability and performance in these areas.



Specific to fire-related positions, the proper implementation of a physical fitness program has been debated for some time. Research has consistently shown the need for high levels of aerobic fitness, muscular endurance, muscular strength and flexibility to perform safely and effectively in fire-related positions. Research has further shown that high levels of physical fitness reduce exposure to on-the-job injury and illness. Physical fitness is essential to maintaining the wellness of uniformed personnel.

## Health Screening for Physical Activity:

To optimize safety during exercise testing and participation, and to permit the development of sound and effective exercise participation, initial screening of participants is recommended before implementation of an exercise program. The purpose of the pre-participation health screening includes:

- Identification and exclusion of individuals with medical contraindications to exercise.
- Identification of individuals with disease symptoms and risk factors for disease development who should receive medical evaluation before starting a firefighter academy or exercise program.
- Identification of persons with clinically significant disease considerations who should participate in a medically supervised exercise program.
- Identification of individuals with other special needs.

**The Physical Activity Readiness Questionnaire (PAR-Q) has been recommended as a minimal standard for entry into low-to-moderate intensity exercise programs. Please consult your physician before starting an exercise program.**

## **Recommended exercise implementation:**

### **A. Cardiovascular fitness:**

Cardiovascular fitness continues to receive high acclaim as a centerpiece of physical fitness in the fire service. Firefighters with adequate cardiorespiratory fitness generally have more stamina, which translate to less fatigue and fewer risks of injuries. All line personnel should be involved in some form of aerobic activity consisting of continuous large muscle mass movement for a prolonged period of time.

#### ***American College of Sports Medicine (ACSM) Recommendation:***

- Adults should get at least 150 minutes of moderate-intensity exercise per week.
- Exercise recommendations can be met through 30-60 minutes of moderate-intensity exercise (five days per week) or 20-60 minutes of vigorous-intensity exercise (three days per week).
- Gradual progression of exercise time, frequency and intensity is recommended for best adherence and least injury risk.

### **B. Strength Training:**

Muscular strength and endurance enables a firefighter to perform job specific tasks with less physiological stress. Training should progress from highly general training to more specific training to reduce the risk of injury. Remember that a strong athletic foundation is important to complete necessary job duties. It's strongly recommended those choosing the firefighter profession to be actively involved with a muscular strength and endurance program.

#### ***American College of Sports Medicine (ACSM) Recommendation:***

- Adults should train each major muscle group two or three days each week using a variety of exercises and equipment.
- Two to four sets of each exercise will help adults improve strength and power.
- For each exercise, 8-12 repetitions improve strength and power, 10-15 repetitions improve strength, and 15-20 repetitions improve muscular endurance.
- Adults should wait at least 48 hours between resistance training sessions.
- Flexibility exercise is most effective when the muscle is warm.

### **C. Musculoskeletal Flexibility:**

Optimal musculoskeletal function requires that an adequate range of motion be maintained in all joints. As a fire fighter it is important to maintain a holistic approach to your exercise program in order to maintain a high level of fitness. A key aspect that is commonly overlooked is flexibility.

#### ***American College of Sports Medicine (ACSM) Recommendation:***

- Adults should do flexibility exercises at least two or three days each week to improve range of motion.
- Each stretch should be held for 10-30 seconds to the point of tightness.
- Repeat each stretch two to four times, accumulating 60 seconds per stretch.
- Static, dynamic, ballistic and PNF stretches are all effective.

## Conclusion:

Training programs should involve a periodized approach, which cycles the intensity and training objectives. The training must be specific not only to your activity, but also to your individual abilities. You must increase the training loads over time and you must train often enough not only to keep a detraining effect from happening, but to also force adaptation.

No matter how rigid or conservative guidelines and policies might be, there is no way to completely eliminate the risk of a serious event during exercise participation. Some data are available to estimate the likelihood of such an event, but clinical and legal judge as well as common sense, must be used to make policy decisions involving safety of participants.

The benefits of physical activity are well established, and are an integral part of a fire fighters success.

