

ORIENTATION TO THE PRE-EMPLOYMENT LAW ENFORCEMENT & SECURITY HEALTH AND PERFORMANCE ASSESSMENT

As time goes on, law enforcement and security officers can no longer deny the fact that their profession requires them to be in top mental and physical condition. Few jobs in either public or private sectors involve physical demands as potentially strenuous and serious in consequence as that of policing. At any moment during an officer's day, without warning, he/she may be called upon to subdue a violent suspect. If the officer is unable to respond with appropriate subject control and force, he/she or the public may suffer serious injury or death.

With increased emphasis on the responsibility of agencies to provide effective educational programs to its personnel and increased awareness of the impact of stress on law enforcement and security officers, departments have recognized the need to restructure programs for the physical development and self protection habits on a long-term basis.

Physical health and performance standards are important to law enforcement and security positions; they warrant inclusion in job vacancy announcements, job descriptions, and employee handbooks. To avoid any problems later on, physical standards regarding employability should be clearly stated from the onset. Such job requirements must also comply with the Federal Equal Employment Opportunity (EEO) guidelines.

An employer must be able to show the Equal Opportunity Commission the relationship between job performance and the criteria for employee selection, retention, and promotion. If physical fitness standards are based upon what employees must be capable of doing to fulfill the agency's mission objective, EEO guidelines can be met. Unless these standards are based on a comprehensive job analysis of the law enforcement and security function, they are as meaningless as the old height and weight requirements.

The Police Science/Security/ and Loss Prevention Department of Fox Valley Technical Institute in Appleton, Wisconsin, has developed a pre-employment health and performance assessment program for law enforcement and security personnel. It has been designed to individually assess a department's state of both health and physical readiness. It is a recognition of the basic principle of atrophy: *that is which are not used degenerates while that which is used improves in strength, efficiency and durability*. The test requirements have been designed to create an awareness in the individual of his/her capabilities that directly relate to the physical demands of police and security work and to provide the means and incentives in order to improve their physical and intellectual well-being. By orienting one's lifestyle to improving and maintaining health and fitness, it is hoped that the individual will be better equipped both now and at retirement to function more productively and have a higher quality of life.

The test requirements have been developed to test two inter-related components within the concept of "total fitness". The first test battery will be to determine the individual's "health fitness." Health fitness is a concept that includes only those fitness components that can prevent disease and promote health. The "health fitness" requirements will include testing to determine general cardiovascular/respiratory endurance (heart and lung efficiency), muscular strength and endurance of the abdominal and lower back musculature, flexibility of the upper and lower back/hamstring musculature, and body composition (the ratio of lean body weight to fat weight). The following test events comprise the "health fitness" test battery.

NOTE: The standards shown for each test component represent the 70 percentile level. It is quite typical to expect that the top scoring candidates who advance in this process achieve combined scores of 80 percent, or higher.

12 MINUTE COOPER RUN

The cardiovascular/respiratory system is a miraculous combination of the heart, lungs, and blood vessels. One of the most cost-effective and practical methods to determine the efficiency of this system is the 12 minute run devised by Dr. Kenneth Cooper. Participants are instructed to cover as much distance as possible by running or walking in a 12 minute time period. Their distance is then recorded and compared to the minimum standard.

12 Minute Cooper Run Standard - Male (Miles Covered)

<u>Under 30</u> 1.25	<u>30 - 39</u> 1.125	<u>Over 40</u> 1.00
-------------------------	-------------------------	------------------------

12 Minute Cooper Run Standard - Female (Miles Covered)

<u>Under 30</u> 1.00	<u>30 - 39</u> .875	<u>Over 40</u> .75
-------------------------	------------------------	-----------------------

SKINFOLD ASSESSMENT OF PERCENT OF BODY FAT

A cost effective method for determining percentage of body fat is the skin fold techniques. This involves measuring selected skin folds on the body with a skin fold caliper.

Percent Body Fat Standard - Males

<u>Under 30</u> 24%	<u>30 - 39</u> 26%	<u>40 - 49</u> 28%	<u>Over 50</u> 30%
------------------------	-----------------------	-----------------------	-----------------------

Percent Body Fat Standard - Female

<u>Under 30</u> 32%	<u>30 - 39</u> 33%	<u>40 - 49</u> 34%	<u>Over 50</u> 36%
------------------------	-----------------------	-----------------------	-----------------------

BENCH PRESS

A dynamic strength test through the full range of joint motion which correlates well with a total body strength criterion is the one repetition maximum bench press. The equipment required includes either a barbell set with a special bench or the bench press station on a Universal Gym apparatus. The procedures for this test involve the following: The individual estimates the weight they can press in one maximal effort. The individual then loads the weight to about two-thirds of the estimated maximum weight. The person is to press this weight once for an easy warm-up. Increase the loading of the weight in ten pound increments to maximum. The score for this test is the maximum number of pounds lifted in one repetition.

Standard - Male (All Ages)

<u>Body Weight:</u>	<u>90 - 99</u>	<u>100 - 109</u>	<u>110 - 119</u>	<u>120 - 129</u>	<u>130 - 139</u>	<u>140 - 149</u>
Pounds	90	95	100	105	110	115

<u>Body Weight:</u>	<u>150 - 159</u>	<u>160 - 169</u>	<u>170 - 179</u>	<u>180 - 189</u>	<u>190 - Above</u>
Pounds	120	125	130	135	140

Standard - Females (All Ages)

	<u>Under 30</u>	<u>30 - 39</u>	<u>40 - 49</u>	<u>50 +</u>
80%	.59 x body weight	.50 x body weight	.46 x body weight	.41 x body weight

VERTICAL JUMP

The vertical jump test has been commonly used as a measure of power. When an officer is required to jump over a low barrier or climb a privacy fence during street operations, one of the movements utilized is explosive jumping. A yard stick, measuring tape, smooth wall or a specifically made vertical jump board are required for the test. Chalk dust is placed on the fingers of one hand as a means for marking the jump. The individual stands with one side toward the measuring device at the height of his jump. The test is scored at the number of inches measured to the nearest half inch.

Standard - Male and Female (All Ages)

A Minimum 17.5 Inch Vertical Jump is Required

STANDING BROAD JUMP

The standing broad jump is also a test of power. It requires a combination of balance, endurance, flexibility, focus, speed, strength, and simplicity. To perform the broad jump the individual will jump as far as possible from a standing position and land on both feet. The distance is measured from the tip of the toes at the start of the jump to the heel of the foot at the end of the jump.

Standard - Male and Female (All Ages)

68 Inches the Minimum Jump Distance

PUSH-UP

The push-up is a popular test used by a majority of fitness authorities to measure upper body musculature endurance. To perform the push-up correctly, the individual begins by lying face down on the floor with hands placed palm down and shoulder width apart. The individual will start the event in the up position with arms almost completely extended. The person must keep his/her back straight at all times, and from the up position, lower him/herself to the floor until his/her chest or nose touches the ground and then pushes to the up position again.

Standard - Male (All Ages)

25 correct push-ups must be performed

Standard - Females

Under 30
14

30 - 39
14

40 - 49
12

50 +
8

SQUAT THRUST

The squat thrust is a well known event that has been traditionally used to test lower body muscular endurance and mobility of the hip, back and leg joints. To correctly perform the squat thrust event the individual must drop down to a squatting position, palms flat against the floor at shoulder width and arms straight. With the body weight supported on both hands, kick legs horizontally backwards so that the legs are fully extended. The individual immediately brings the legs back forward to the squatting position. He/she then stands back up and repeats the whole sequence again as many times as possible in thirty (30) seconds.

Standard - Male and Female (All Ages)

5 Correct Squat Thrusts in 30 Seconds

BENT-KNEE SIT-UPS

The sit-up has long been recognized as a practical method of testing abdominal muscular endurance. In the sit-up test, the individual starts by lying on his/her back, knees bent and held flat on the floor. The feet are held down by a partner or the exercise technician. A full sit-up is counted when the individual curls up until the elbows come in contact with the knees, and then back down until the shoulder blades touch the floor. As many sit-ups as possible are to be completed within a one minute time limit.

Sit-up Standards
Males and Females

Under 30
35

30 - 39
30

Over 40
25

TRUNK FLEXION

No general flexibility test measures the flexibility of all joints; however, the trunk flexion or the sit and reach test and the trunk extension serve as important measures of hip and back flexibility.

In the trunk flexion (sit and reach) test, the individual, while seated on the floor, bends forward from the waist and sees how far he/she can stretch, without straining, noting the distance on a measuring device. Draw or tape a line on the floor and place a measuring stick across it so that the line is even with the 15 inch mark. Sit on the floor so that your heels are on the line and your feet are about five inches apart. With you legs straight, bend forward as far as you can, and touch the marking stick. The mark you reach is your score.

Trunk Flexion Standard Males (Inches Reached)

Under 30
15

30 - 39
14

Over 40
13

Trunk Flexion Standard Females (Inches Reached)

Under 30
16

30 - 39
15

Over 40
14

TRUNK EXTENSION

In the trunk extension test, the individual lies flat on his/her stomach, face down, fingers interlaced behind the neck and feet held or anchored to the floor. The individual then raises the chest upward from the floor by hyper-extending the back so that the chin is elevated as high as possible from the floor. The distance of elevation of the chin from the floor will be recorded in inches for purposes of scoring.

Trunk Extension Standard Males

<u>Under 30</u>	<u>30 - 39</u>	<u>Over 40</u>
16	14	12
Trunk Extension Standard Females		
<u>Under 30</u>	<u>30 - 39</u>	<u>Over 40</u>
17	15	13

Standards for the "health fitness" requirements are adjusted and dependent upon the individual age and sex. It has been currently recognized by the medical and exercise physiology sciences, that as an individual ages, cardiovascular/respiratory endurance and joint flexibility decreases, while body fat increases. Therefore, it is only reasonable to adjust the test requirements accordingly.

Some of these standards are based upon and justified according to the profile criminal offender philosophy. Ongoing research within the field of criminology continues to substantiate the fact that the vast majority of all crime is committed by 16 to 26 year old males. Therefore, because the age, sex, health and fitness level of the profile criminal never changes, it is reasonable to expect the officer to maintain similar performance fitness, regardless of the age and sex differential of law enforcement officers.

We believe that you will find this law enforcement and security health and performance assessment an exciting adventure. This test is one of the most unique and comprehensive evaluations of an individual's level of health and state of physical readiness in the United States. It will be our pleasure to assist you in bringing out your best.

This document has been written to inform you on what the test events and standards are that comprise this health and performance assessment and how you can determine your own personal health and performance level in relation to these standards.