

SHENANDOAH NATIONAL PARK
HEALTH & FITNESS PROGRAM

I. Authority

There are numerous laws, regulations, guidelines and policies listed in Appendix A which emphasize the need for Federal agencies to adopt occupational health and safety programs relating to the prevention of injury, illness and disease. These references authorize the National Park Service and the Park to develop, promote and administer a program that will enhance the health and well-being of its employees.

II. Policy

It is the policy of Shenandoah National Park to develop and promote a volunteer physical fitness program that enhances the general health and fitness of all employees and their families.

III. Purpose

The purpose of the Park's fitness program is fourfold:

- (1) Develop and maintain an optimum level of employee health, fitness and appearance through regular exercise, diet and weight control.
- (2) Reduce loss of worktime from illness, disability or job dissatisfaction.
- (3) Improve overall employee job performance.
- (4) Increase the ability to absorb emotional stresses over and above those of the normal daily activity, increase mental alertness and reduce tension.

IV. Scope

This voluntary program is applicable to all employees and spouses in Shenandoah National Park subject to the restrictions noted below:

- A. For those permanent employees who, because of the nature of their work, i.e., wildland fire fighting and structural fire fighting, are obligated to meet specific physical standards, the Government will provide medical examinations, fitness screening, prescriptions, fitness testing, and will allow up to one-half hour per day of duty time approved by the supervisor within regularly

scheduled work hours, at their respective worksites, to participate in an individual exercise program of their choice. Those employees who are involved in specific fitness programs, and who receive prior approval from their supervisor, may utilize more than one-half hour of duty time on a given day, not to exceed two and one-half hours per week.

- B. Seasonal employees who are obligated to meet certain standards will be required to take a preemployment physical at their own expense. The Government will provide fitness testing and allow one-half hour per day of duty time approved by the supervisor within regularly scheduled work hours and at their worksite to participate in an individual exercise program of their choice. The cost (\$60-\$90) of the fitness screening and prescription, should they desire it, will be paid by the individual.
- C. For those employees who are not required to meet physical standards and who choose to participate in a voluntary fitness program, the Government will provide fitness testing and allow one-half hour per day of duty time approved by the supervisor within regularly scheduled duty hours and at their worksite to participate in individual exercise programs of their choice. The cost (\$60-\$90) of the fitness screening and prescription, should they desire it, will be paid by the individual.
- D. For those employees who are participating in a voluntary program and who choose not to exercise on duty time, the Government will provide fitness testing should they desire it.

V. The Program (An Overview)

Shenandoah National Park endorses a voluntary physical fitness program that embodies the following fitness components: Aerobic capacity (cardiovascular fitness); flexibility; muscular strength, and proper weight, diet, and lifestyle. The core of this program emphasizes aerobic exercises. Aerobic refers to a variety of exercises that stimulate the heart and long activity for a sufficient length of time to produce beneficial changes.

This program makes available to participants information and motivation materials on health fitness, and offers: 1) a screening program to evaluate current fitness levels, 2) a fitness prescription which sets exercise goals, 3) testing to measure progress, and 4) standards to meet current NPS guidelines.

Prior to embarking on any fitness program, participants should have had a general medical examination within the last year. Those permanent employees who must meet standards will be given a general medical examination at the Government's expense prior to screening. This examination may be taken in conjunction with the fitness screening at the University of Virginia, or participants may select a physician of their choice. Those seasonal employees who must meet standards and all other employees who are not required to meet standards but wish to participate in the screening process must have a general physical at their expense prior to being screened. Arrangements can be made to take the physical in conjunction with the screening process. Those employees who are not required to meet standards, and choose not to be screened, but who are participating in a personal fitness program, may be tested at the Government's expense without taking a general physical. It is strongly recommended, however, that all employees take a physical each year.

The goal of the program will be to develop a personal fitness plan for each participating employee so that each individual can cope with daily duties of life while still having a reserve capacity for participation in enjoyable recreational activities and for meeting emergency situations.

VI. Guidelines

A. Management and Counseling

The Park Physical Fitness Coordinator, assisted by District Physical Fitness Coordinators, will be responsible for providing leadership, direction and motivation, conducting fitness tests; and reporting test results when required. The Center for Physical Fitness at the University of Virginia will provide fitness screening, individual fitness prescriptions, and training for Coordinators in testing procedures.

Although the Center for Physical Fitness can provide expert advice, counseling and screening, it is the responsibility of the Fitness Coordinator to direct the program. Tests to measure progress and meet established standards will be conducted in the Park.

Once the Center for Physical Fitness completes the initial screening and testing, the burden of implementation rests with the Park Physical Fitness Coordinator and, more importantly, with the individual.

B. The Screening Process

The screening process is undertaken by the Center for Physical Fitness, UVA, to ensure that an employee is

physically able to begin an exercise program by providing the employee with a fitness profile of his/her personal goal or the mandatory standards established by the National Park Service. The screening process (health risk analysis) consists of the following: 1) health history, 2) resting electrocardiogram, 3) resting blood pressure, 4) serum cholesterol (optional) 5) anthropometric measurements (body % fat), 6) flexibility test, 7) lung function, 8) exercise test and 9) strength test.

C. The Fitness Prescription

Following the screening process, the Center for Physical Fitness will provide a fitness prescription for each individual. This prescription will set exercise goals that will: 1) improve cardiorespiratory fitness, 2) improve body composition (% fat), 3) improve flexibility and neuromuscular function of the lower back, and 4) improve strength. The exercise prescription will include the intensity, duration, frequency and progression of physical activity. The type of voluntary activity -jogging, running, racquetball, tennis, etc. - is the decision of the participant. There are many different types of exercise that will fulfill the requirements of each fitness prescription.

D. Testing

The main purpose of testing is to establish a measurable basis for determining progress. Many of the tests can be self-administered once instructed by the Physical Fitness Coordinators. Formal testing of employees engaged in wildland fire is required by NPS-18.

(1) Administration

Test administrators will be well versed in test purposes and procedures, as established by the Center for Physical fitness or the Park Physical Fitness Coordinator, and in the technical aspects of the bicycle ergometer, skinfold caliper and other related equipment. An EMT or Park Medic must be present during all aerobic physical fitness testing.

(2) Testing Interval

- (a) Participating employees who by the nature of their jobs are obligated to meet NPS-18 standards will be tested in September and February.

(b) Employees and spouses may be tested at any time by contacting the Physical Fitness Coordinator, but all participating employees must do so at least one each year.

(c) Exceptions to the mandatory testing noted in (a) will be made for those persons suffering from a type of disability that would be aggravated by participation in the program. In order for those persons to be excused, they must have a signed statement from the Center for Physical Fitness (as a result of the screening process) or from their family physician. This statement will describe the nature of the disability and the expected duration. Employees excepted from the testing will not be permitted to participate in wildfire and structural fire suppression.

(3) Reporting Procedures

For participating employees who are required to meet mandatory standards, tests results will be forwarded to the Chief Ranger's Office on a 10-343 in accordance with NPS-18. In addition, the Physical Fitness Coordinator will maintain a form SNP F-1 on each required employee.

(4) Retesting

Participating employees who must meet mandatory standards and who fail to meet the minimum score will be required (subject to a physical disability or impairment as previously noted) to retake the test until a minimum score is achieved. A passing score of 45 on the aerobic fitness test only is required to meet standard. The flexibility, % of body weight, and strength standards are, as yet, not a requirement to meet standard. If after five tries the employee's aerobic fitness score does not reach 45, there are three options: 1) train 6-8 weeks and retest (suspended during that period from fire fighting, 2) reduce job duties, or 3) reassign employee.

E. Standards

Personnel involved in wildland and structural fire are required to meet mandatory fitness standards. Those employees will be tested in the following categories: (At present only Test #1 is a critical element to meet the mandatory requirement.)

	<u>Male</u>	<u>Female</u>
(1) Aerobic Fitness*	45 ml/kg/min	45 ml/kg/min
(2) Flexibility (Wells Sit & Reach Test)	85 percentile	85 percentile
(3) % Body Fat (Skinfold Caliper)	Less than 12%	Less than 20%
(4) Strength	85 percentile	85 percentile

* The bicycle ergometer test may be used in lieu of the Step Test and 1.5 mile run for aerobic fitness testing.

VII. Responsibility

Each participating employee is responsible for putting forth the personal effort to follow his/her personal fitness program as developed. Not only will the Service and the visitor benefit from the results, but the employee will enjoy life more.

Physical Fitness Administrative Concerns

1. General authority for establishment of a physical fitness program.

a. P.L. 79-658 (5 U.S.C. 7901) authorized agency establishment of health service programs to promote and maintain the physical and mental fitness of Federal employees. Implementing guidelines are in OMB Circular A-72 of June 18, 1965, FPM Chapter 792-1, FPM Supplement 792-1, and FPM Letter 792-9, of May 23, 1979.

b. Chapter 79, Section 7901 U.S. Code:

"The head of each agency of the government of the United States may establish, within the limits of appropriations available, a health service program to promote and maintain the physical and mental fitness of employees under his jurisdiction. Such programs may be established by contract or otherwise and are limited to certain constraints, among them that they be preventive programs relating to health."

c. Circular Number A-72 from the Office of Management and Budget, (June 18, 1965):

"The health fitness of federal employees for efficient performance of their assigned work is an important element in a progressive personnel management system and in effective administration of federal programs. The head of each department and agency, therefore, will review existing programs and is authorized and encouraged to establish an occupational health program to deal constructively with the health of the employees of his department or agency in relation to their work."

d. Policy Statement of the President's Council on Physical Fitness and Sports, Physical Fitness Programs for Federal Employees (October 23, 1973):

"It is hereby recommended by the President's Council on Physical Fitness and Sports that heads of agencies in the Federal government recognize the importance that the contributions of regular exercise can make to job performance as well as employee health and do whatever in their power to make provisions for federal employees to participate in either on-the-job exercise programs or exercise programs after duty hours. Exercise rooms; showering and dressing facilities should be provided wherever feasible."

c. "February 1, 1980 - President Lists Items Requiring Immediate Action"

President Carter's address to the National Conference on Physical Fitness and Sports for All included a series of directives on which he urged immediate action, including:

-Urge all employers to provide facilities for employees fitness programs (the President said he would personally ask employers to take such action).

-Encourage all federal departments and agencies to support physical fitness programs (He said he would talk to the Secretary of Defense and others in the government about increasing their efforts).

2. Medical screening - voluntary and mandatory fitness programs.

a. National Park Service regions and areas are authorized to provide health services (medical examinations) at the expense of the government within the constraints of OMB Circular A-72. Federal Personnel Manual Chapter 792 includes among authorized health services "any in-service examinations of employees that the agency head determines to be necessary (in addition to fitness-for-duty examinations which are performed under existing authority)."

b. Departmental Manual 370 DM 339 specifies procedures for "mandatory in-service examinations of employees in hazardous or arduous occupations. By memorandum the Department's Medical Director has delegated authority to Bureau heads to identify those occupations. Formal procedures for medical examinations and fitness testing for employees engaged in wildland fire suppression are contained in NPS 18.

3. Fitness testing.

a. Federal Personnel Manual Chapter 271, Subchapter 5 reserves to the Office of Personnel Management (OPM) the authority for approving physical standards for positions within the competitive service. Agencies have the authority to establish physical standards for positions outside the competitive service. In both cases, bureaus must submit recommendations to the Department's Director of Personnel either for referral to OPM for approval of standards in the competitive service or for his approval of standards in the excepted service. The restriction on the development of additional physical standards by bureaus emanates from Section 7153 of title 5, U.S.C. which requires that applicants or employees need

possess only the minimum physical abilities necessary to perform effectively and safely in the job for which they are being considered or to which they will be assigned. Federal Personnel Manual Supplement 339-31, Subchapter SI-1 reiterates this basic requirement and adds that "should an additional or more stringent requirement be determined necessary, the agency, on the basis of careful job analysis, must submit the proposed requirement to OPM for approval before it is used."

b. Physical fitness testing constitutes an additional physical standard which entails requisite approval. With the exception of mandatory testing for wildland firefighters, NPS has not received approval from OPM to test employees in other occupations (search and rescue, law enforcement, etc.). The possibility exists that OPM will delegate this authority to agencies.

c. Employees participating in either a mandatory program (Western Region) or voluntary program are generally covered by the Federal Employees Compensation Act for injuries sustained.

e. Within normal guidelines regarding the use of leave time (FPM Chapter 630), employees may be granted up to three hours of administrative leave per week to participate in structured fitness activities.

GOALSPERSONAL FITNESS RECORD

% Body Fat _____ Weight _____ lbs. Flexibility (S & R) _____ In. (ChIn) _____ In.

Strength: Situps _____ Jump _____ In. Aerobic Fitness _____ ml/kg/min

Resting Heart Rate _____ Min. Prescription Training Zone _____ Hr/Min

Date	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
% Fat																			
Weight Lbs																			
Resting HR																			
Resting B/P																			
Flexibility S & R																			
Flexibility ChIn																			
Strength Situp																			
Strength Jump																			
Aerobic ml/kg/min																			

COMMENTS:

UNIVERSITY OF VIRGINIA

SCHOOL OF EDUCATION

Ruffner Hall

DEPARTMENT OF HEALTH EDUCATION
AND PHYSICAL EDUCATION
405 EMMET STREET
CHARLOTTESVILLE, VIRGINIA 22903
PHONE: (804) 924-3167/3187

TO: Preregistrants, Adult Fitness Program and Physical Fitness Testing Program

FROM: Larry A. Wolfe, Ph.D., Director, Center for Physical Fitness

RE: Entry Procedures

Thank you for your interest in the Adult Fitness/Physical Fitness Testing Program at the University of Virginia. We are pleased to have received your pre-registration form and look forward to your joining our program.

Enclosed you will find: (1) a Medical Evaluation Form for Exercise Testing and Prescription, and (2) a description of laboratory tests which will be administered upon your entry into the program. The purpose of the laboratory tests is to ensure your safety, to measure your coronary heart disease risk factors, and to provide information that we will use to design your exercise program.

The steps involved in entering either the Adult Fitness Program or Physical Fitness Testing Program are as follows:

1. First, please arrange to have the enclosed Medical Evaluation Form filled out and returned to us by your personal physician. Note that we cannot allow you to perform strenuous exercise of any kind until this form is on file.
2. On receipt of your preregistration form we will contact you by telephone to schedule an appointment for preliminary screening tests (12-lead EKG, health history, blood pressure, body composition analysis and sit-and-reach flexibility test). Formal registration and fee payment are also accomplished during the preliminary screening session. The only type of credit or deferred payment that we can accept is payment by Visa or Mastercard.

The screening tests and registration requires approximately one hour to perform. Please read carefully the enclosed directions for preliminary screening appointments.

3. After your preliminary screening tests are completed, arrangements will be made for you to provide a fasting blood sample and perform an exercise test with EKG.

In closing, I thank you for your interest in the Adult Fitness/Physical Fitness Testing Program. I look forward to meeting you in the near future.

LAW:ns

Enclosures

UNIVERSITY OF VIRGINIA

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PHONE: (804) 924-3167/3187

TO: Referring Physicians

FROM: Larry A. Wolfe, Ph.D.
Center for Physical Fitness

RE: Medical Evaluation Form for Exercise Testing and Prescription

Your patient has expressed interest in participating in the Adult Fitness Program conducted by the Center for Physical Fitness at the University of Virginia. It is required that all participants in the Adult Fitness Program provide medical clearance prior to initiating exercise. Attached is the Medical Evaluation Form for Exercise Testing and Prescription which we request that you complete.

The purpose of this medical clearance are: (1) to ensure that each participant's personal physician considers his/her involvement in an exercise program to be medically safe, (2) to communicate to the staff of the Center for Physical Fitness information regarding the participant's coronary heart disease risk status, and (3) to indicate any limitations which should be placed on the participant's exercise program.

Upon entry into the Adult Fitness Program, each participant completes a physical Fitness evaluation which includes measures of cardiorespiratory fitness (treadmill or bicycle ergometer test), body composition (skinfolds) and low back/hamstring flexibility (sit-and-reach test). These data and the information provided on the Medical Evaluation form will be used to develop an individualized exercise prescription. A final review of all data will be performed by Dr. William Ober, Medical Director of the Center for Physical Fitness.

The primary purposes of the Adult Fitness Program are to improve cardiorespiratory fitness, body composition and neuromuscular function of the low back. Also the program aims to educate each participant regarding his/her coronary heart disease risk status and the means by which this can be improved. Each supervised exercise session consists of 10-30 minutes of walking, jogging, or running at an individually prescribed heart rate. This aerobic activity is preceded by a calisthenic routine designed to increase abdominal strength and low back/hamstring flexibility.

Your assistance in providing medical clearance for your patient to participate in the Adult Fitness Program is greatly appreciated. If questions arise, please feel free to contact me at (804) 924-3167/3187. Please return the Medical Evaluation form to Larry A. Wolfe at the address given above.

LAW:ns

APPENDIX D

MEDICAL EVALUATION FORM FOR EXERCISE TESTING AND PRESCRIPTION

Additional Abnormalities you are aware of _____

Date of last complete physical exam _____

Present Medication _____

Please provide the following information, if it is available. (Note: not mandatory)

1. Urine, sp. gr. _____ Alb. _____ Glucose _____ Micro. _____
2. Complete blood count: Hbg. _____ Hct _____ WBC _____ Diff. _____
3. ECG, 12 lead (enclose copy, indicate data obtained) _____
4. Blood pressure (most recent measures):
Date _____
Systolic _____
Diastolic _____
5. Glucose _____ mg%
6. 2 hr. Post Dextrocia _____ mg%
7. Cholesterol _____ mg% Lipoprotein electrophoresis _____
Triglycerides _____ mg%
8. Results of Previous Graded Exercise Test (if available, enclose) _____

Impression of above information _____

The above named person:

- _____ is capable of safely performing a exercise test for the evaluation of aerobic work capacity and subsequent participation in exercise as prescribed by the Center for Physical Fitness.
- _____ should perform an exercise test and participate in an exercise program only under the direct supervision of a physician.
- _____ should not perform an exercise test or participate in an exercise program.

Comments:

Signed: _____ M.D.

Type or print name of physician _____

Address: _____ Telephone _____

CENTER FOR PHYSICAL FITNESS

University of Virginia

Laboratory Tests for Physiological Evaluation

Purpose

The purpose of the laboratory tests for physiological evaluation is to collect the information needed to develop an exercise prescription which is safe and appropriate for you as an individual. The results of the screening process are used to determine the types and amounts of exercise which will benefit you the most. If needed, recommendations regarding coronary risk factor modifications will be made. Also, the data collected provide a baseline with which future test results can be compared so as to determine your rate of progress.

Test Procedures

Following is a listing and brief description of each component of the screening and testing process:

1. Health History - You will complete a questionnaire providing information regarding your health habits and health history.
2. Resting Electrocardiogram - A 12-lead resting ECG will be recorded and reviewed for abnormalities.
3. Resting Blood Pressure - Elevated blood pressure is a primary coronary heart disease risk factor.
4. Serum Cholesterol - A blood sample will be collected and analyzed for serum lipid concentrations. Serum lipids (especially cholesterol) are primary coronary heart disease risk factors.
5. Anthropometric Measurements - Height, weight and skinfold thicknesses will be measured; the latter will be used to estimate your body composition (% fat).
6. Flexibility Test - The sit-and-reach test evaluates low back and hamstring muscle flexibility which are related to the occurrence of low back pain.
7. Lung Function - If you are a smoker, you will be asked to blow into a lab spirometer to measure your vital capacity. The test evaluates the function of your lungs and respiratory muscles.
8. Exercise Test - The exercise test is used to measure your physical working capacity and the functional status of your heart and cardiovascular system. It is performed after the completion of the other test items, on a separate day. The kind of test (treadmill or bicycle) and the highest pulse rate achieved will depend on your age and the other test results.

Directions for Preliminary Screening Appointments

You will be contacted via telephone to schedule your appointment. You should allot approximately one hour for the screening and registration procedure. While we

ask that you report promptly to the Center for Physical Fitness at your appointment time, there will be no advantage to reporting early.

Locating the Center for Physical Fitness

The Center for Physical Fitness is located in Room 225 in the University of Virginia's Memorial Gymnasium on Emmet Street in Charlottesville. You should enter Memorial Gymnasium through the main entrance at the north end of the building. (You will need to walk around the elevated running track which is suspended above the gymnasium floor.)

Parking

Metered parking is available in the visitors' lots which are situated immediately south of Memorial Gymnasium and directly across Emmet Street from the north end of the building.

Clothing

You should bring with you (or report in) clothes which are appropriate for activity. We recommend shorts and soft-soled shoes. For women we ask that a bikini top or front-buttoned, sleeveless blouse be worn (this is to facilitate the attachment of electrodes for recording of the electrocardiogram and heart rate).

Abstinence from Food and Drink

We request that you abstain from all food, beverages and use of smoking materials for three hours prior to your appointment.