



CONSERVATION OFFICER SERVICE MEDICAL CLEARANCE FOR PHYSICAL ABILITIES TESTING

Dear Doctor:

The client who has made an appointment with you has applied for employment with the B.C. Conservation Officer Service (COS). As a pre-requisite to employment, candidates must demonstrate a minimum level of fitness by successfully completing the *Physical Abilities Test for Conservation Officers* (PATCO). To minimize the health risk, we are requesting a medical examination to determine whether the individual has any contraindications to taking the full test battery.

After reading the summary below, please complete Part I and Part II of the Medical Clearance Form as directed.

BACKGROUND

The PATCO was designed and validated on the *bona fide occupational requirements* of an entry-level, general duty conservation officer (CO).¹ The PATCO is comprised of three separate tests (see below) which, in combination, assess a candidate's physical ability against the minimum standard in: aerobic/anaerobic fitness; whole body muscular strength; and balance, agility, and flexibility. Based on a thorough job and physical demand analysis, the PATCO test battery provides a reasonable indication of an individual's ability to perform a conservation officer's physically demanding job duties.

OBSTACLE COURSE

Candidates must safely complete six laps of an approximately 67m circuit, for a total distance of 400m, in three (3) minutes or less. The circuit includes the following obstacles: a 1.8m simulated water jump; a 3.6m simulated log walk; a section where candidates manoeuvre in between a series of safety pylons; a section where candidates step over simulated logs (45 cm) and crawl under fallen trees (70 cm); and, finally, a vault over a 0.91m fence.

The obstacle course simulates a conservation officer's response to critical incidents where **near maximal or maximal levels of exertion** are required. For example, pursuit of a wounded animal in an urban setting requires that an officer be able to run full out for brief periods in order to control the situation's associated risks. Throughout such an event, both the aerobic and anaerobic energy systems are utilized. Muscular strength, agility, flexibility and balance are also required to manoeuvre over/under/around different obstacles such as fences, stairs, sharp corners, logs, rocks and water.

STRENGTH TASKS

Since conservation officers often work alone, they are required to individually lift and carry loads of varying weight, size, shape, and length. Some more common, physically demanding strength tasks include: dragging and lifting an animal carcass; loading/unloading a car-top boat; carrying an outboard motor; freeing a stuck ATV or snowmobile; and carrying a portable winch.

In terms of the strength tests outlined below, the pass score has been set as completion of the task. While the participant determines the speed or pace of their movement, successful completion requires *continuous movement* once the task is initiated. Candidates have a minimum of three (3) minutes rest between each task.

¹ *Pre-employment Physical Abilities Test Battery Developed for Conservation Officers of British Columbia* (Lyneth Wolski Consulting, 2001).

1. *Car-top Boat Transfer* – Participants must lift and carry the bow of a 3.6 m aluminum boat, laying face up on the ground, in a 90° arc. The individual must then lift the bow, hand over hand along the bottom of the boat, in order to raise it into a vertical resting position against a fence, wall, or side of a truck. In a controlled manner, the boat is returned to its starting position.
2. *Motor Lift and Carry* – Participants must lift an outboard motor (approximately 35kg or 77lbs) from the back of a pick-up truck, carry it a distance of 12.2m, place it on a motor stand, and then safely return it to the vehicle.
3. *Carcass Drag* – Participants must drag a simulated animal carcass (approximately 57kg or 125lbs) 23m to a culvert trap, load the carcass completely into the trap, then unload and return the animal to its starting point.
4. *Snowmobile Transfer* – By lifting/shifting the front or back end, participants must rotate a “stuck” snowmobile 180° in one direction and then back 180° to the starting position.

PACK TEST

During the peak season, a conservation officer may spend anywhere from 60-80% of their time in the field. Depending on the task, a significant portion of an officer’s time (30-66% of activity during the day) may be spent at heart rates above 50% of maximal heart rate. For instance, officers have ranked the cougar chase as the most physically demanding aerobic/anaerobic task that they may be expected to perform. Data collected in the field indicates that during a cougar chase, 70% of the time is spent at heart rate intensities above 75% of heart rate max. To simulate this and similar demands, candidates must complete a 4800m (3 mile) hike in 45 minutes or less, over a flat, clear course, while carrying a 16kg (35lbs) backpack. To reduce the potential for knee, foot or back injuries, running is not permitted.

COMPLETION INSTRUCTIONS

- **Complete Part I, Physical Activity Readiness Questionnaire, and retain on file or return to the participant. Use and attach additional pages as needed.**
- **Complete Part II, Certification Document, and return to the participant.**
- **PLEASE NOTE: Due to the associated health risk, on the day of PATCO testing an applicant’s resting heart rate cannot exceed 100 BPM while blood pressure cannot exceed 150/100mmHG.**

MEDICAL CLEARANCE FORM - PART I

PHYSICAL ACTIVITY READINESS QUESTIONNAIRE

RETURN PART I TO THE PARTICIPANT OR RETAIN ON FILE.

THIS SECTION TO BE COMPLETED BY PARTICIPANT	
PARTICIPANT'S NAME _____	
DATE OF BIRTH _____	GENDER _____

THIS SECTION TO BE COMPLETED BY THE EXAMINING PHYSICIAN			
HT	WT		
RESTING BP	RESTING HR (BPM)	RHYTHM	
CONDITIONS LIMITING PHYSICAL ACTIVITY: <input type="checkbox"/> CARDIOVASCULAR <input type="checkbox"/> MUSCULOSKELETAL <input type="checkbox"/> RESPIRATORY <input type="checkbox"/> ABDOMINAL <input type="checkbox"/> OTHER		TESTS REQUIRED (AS DETERMINED BY EXAMINING PHYSICIAN) <input type="checkbox"/> ECG <input type="checkbox"/> BLOOD <input type="checkbox"/> EXERCISE TEST <input type="checkbox"/> URINALYSIS <input type="checkbox"/> X-RAY <input type="checkbox"/> OTHER	

BASED ON YOUR PHYSICAL EXAMINATION, DOES THIS PERSON HAVE ANY MEDICAL CONDITION(S) THAT COULD PUT THEM AT RISK AS A RESULT OF THEIR PARTICIPATION IN THE PATCO, A MAXIMAL PHYSICAL EXERTION TEST? IF SO, PLEASE EXPLAIN.

PHYSICAL ACTIVITY READINESS REFERRAL:

FULL PARTICIPATION WITH NO PRECAUTIONS

FULL PARTICIPATION WITH PRECAUTIONS (PLEASE DESCRIBE IN PART II FOR THE BENEFIT OF THE TEST ADMINISTRATOR)

DO NOT RECOMMEND PARTICIPATION

NAME OF PHYSICIAN: _____

PHYSICIAN'S SIGNATURE: _____ MD DATE: _____

MEDICAL CLEARANCE FORM - PART II

CERTIFICATION DOCUMENT

RETURN PART II TO THE PARTICIPANT.
THE CERTIFICATION DOCUMENT MUST BE SUBMITTED AT THE TIME OF PATCO TESTING.

THIS SECTION TO BE COMPLETED BY PARTICIPANT

APPLICANT EMPLOYEE OTHER

NAME _____

THIS SECTION TO BE COMPLETED BY EXAMINING PHYSICIAN

NAME OF PHYSICIAN _____

PHYSICIAN'S SIGNATURE _____

MD DATE _____

DOCTOR OR CLINIC STAMP (REQUIRED)

Based on your physical examination and the responses to the questions in the Physical Activity Readiness Questionnaire, do you believe this person is medically fit to participate in the PATCO, a maximal physical exertion test?

Yes, FULL PARTICIPATION WITH NO PRECAUTIONS

No (EXPLAIN BELOW)

Yes, FULL PARTICIPATION WITH PRECAUTIONS (EXPLAIN BELOW)

COMMENTS _____

NOTE TO THE PARTICIPANT

- It is recommended that you refrain from caffeine, nicotine or large amounts of food within two (2) hours of testing. It is also recommended that you refrain from the consumption of alcohol within 24 hours of testing.