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**Occupational Health in Police Work:**  
**A Canadian Perspective**

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*CLINICAL PRACTICE*

## Occupational health in police work: a Canadian perspective

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The Royal Canadian Mounted Police (RCMP) is the federal police force in Canada and is engaged in police work throughout the length and breadth of the country. The occupational health of the members of the Force is managed regionally by health professionals in each division from the Atlantic coast to the Pacific. Each division has a regional health services officer who is a physician, a regional psychologist and a variable number of occupational health nurses.

In Ottawa, Canada's capital city, the RCMP Health Services Directorate is the team of individuals who are responsible for policies which impact upon police officer health. The team includes the director of health services who is a physician, the occupational health physician, a clinical psychology section, a fitness and lifestyle section and a health and safety section which deals with accident prevention and safety equipment. It is here that decisions are made about the interactions of health, fitness and disease with police work.

This interaction can be divided into two basic components: the impact of the police officer health on the work, and the impact of the work on the police officer health.

### POLICE WORK

In order to make logical decisions about the interaction between health and police work it is necessary to know exactly what is meant by the term 'police work'. Certainly, if one is to defend such decisions in the context of legislated protection of individual human rights and to guard against discrimination on the grounds of disability, it is necessary to have a detailed description of what police work entails. The description

must include physical tasks that require physical abilities such as vision and hearing, as well as abilities such as running, grappling, tackling, handcuffing, discharging a firearm, pursuit driving and many more. This means that police work must be analysed into its component tasks. The technique for performing task analysis has been published elsewhere' and a detailed task analysis for general duty constable was created, with the assistance of serving police officers, for this Force.

### THE IMPACT OF POLICE OFFICER HEALTH AND OCCUPATIONAL FITNESS ON POLICE WORK

Once the task analysis is complete it becomes possible to dissect out the physical and mental tasks required to do the work and to describe the physical and mental abilities required of the individual hired to do the tasks. This allows a recruit standard to be developed on the basis of a specific task analysis so that the attributes required of constables can be easily and directly shown to be bona fide occupational requirements. It also allows the assessment of individual police officers who are suffering from a disease or disability in the context of the task analysis, so that specific limitations and duty restrictions can be communicated to individuals charged with personnel management. This is done in a manner that respects medical confidentiality and ensures that the police officer is not assigned to a position where required to perform tasks which cannot be performed safely.

When assessing the individual police officer, the concept of safety is an important one. Where an intercurrent disease or disability prevents the individual from performing the tasks of employment it is relatively easy to assign limitations and restrictions. When an individual can perform the tasks, but it is unclear how safely he can do so, then the situation must be examined more

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closely. For example, a police officer with uncontrolled epilepsy could certainly drive a car in a high speed chase but if a seizure is suffered while driving then that individual might be killed or seriously-injured. If there were another police officer in the car then this person would suffer the same fate. If the individual happened to have the seizure while speeding past a playground there would be a threat to the safety of the children on the playground.

The impact of the health condition, then, is assessed in terms of four criteria (Table). Firstly, the individual's ability to do the job, secondly, any threat to the safety of the public brought about by the interaction of the tasks of employment with the disease or disability. The third criterion is any threat to the safety of a co-worker and the fourth is any threat to the safety of the individual police officer.

In a police force that covers so many thousands of miles it is necessary to ensure that a member of the Force on the Atlantic coast who has a specific condition will be treated the same way as a member on the Pacific coast. In order to ensure consistent treatment the RCMP Health Services Directorate has analysed medical diseases and disorders of all organ systems in the light of task analysis, and provided the regional health services officers with a detailed guide for recommended limitations and restrictions determined by the condition and its severity.

We have dealt with the issues of recruit standards and the effects of intercurrent disease or disability on ability to do police work. What about the individual who has no demonstrable medical condition but who lacks the occupational fitness required to perform the tasks of police work?

In order to address the issue of fitness, the Fitness and Lifestyle section has developed a test of occupational fitness known as the Physical Abilities Requirement Evaluation or PARE. This test is adapted from the earlier Police Officers Physical Abilities Test (POPAT)<sup>2</sup> and is a test of physical ability that is more than a simple fitness test. In the past police officers have been required to maintain a certain height-to-weight ratio or perform a certain number of push-ups, or run a certain distance in a given time. There is no evidence, however, of a relationship between an individual's ability to do push-ups and his/her ability to do police work.

**Table.** Considerations for officers with intercurrent disease or disability

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|--|
| 1. Ability to do the job               |
| 2. Safety of the public                |
| 3. Safety of co-worker                 |
| 4. Safety of individual police officer |

The PARE is based on the task analysis of police work and isolates specific physical tasks that serving police officers tell us are integral to police work. The test requires the sequential performance of these tasks in a controlled environment within a limited time.

While there is no doubt that the physically fit police officer is more likely to do well on the PARE, it is important to note that the test does not measure general physical fitness but, rather, specific, job related, occupational fitness.

It is considered more likely that members of the force will maintain the desired level of occupational fitness if they are provided with encouragement other than the requirement for periodic testing. To this end the Fitness and Lifestyle section has developed a training and remedial process to go into effect simultaneously with periodic testing, as well as the PARE circuit training manual to assist members in either preparatory or remedial conditioning.

#### THE IMPACT OF POLICE WORK ON HEALTH

The effects of police work on health have been considered elsewhere<sup>3</sup> and the existence of occupational medical conditions other than injury from violence is controversial.<sup>4</sup> Nevertheless this topic has not been well studied. We suspect that if there is an increased incidence of physical or mental disorders among police officers, it may be more closely related to the lifestyle that seems to go with police work. The stresses of police work are many and are probably magnified by the need to work long hours and different work shifts. There can be little doubt that police work, by its very nature, carries certain occupational stresses. The psychologist in charge of the Emotional Health section of our Health Services Directorate has surveyed this Force to determine the stressors inherent in police work. After the stressors were identified it became possible to educate the members and to sensitise the regional psychologists and the regional Health Services Officers to the most common stressors.

A review of pensioned members suggested a possible increase in hearing deficits among retired members and a review of published literature<sup>3</sup> suggests a variety of other possible associations.

Less tenuous is the impact of definite occupational exposures of specialists within the police force. Armourers for example, as well as instructors on a firing range, are exposed to lead and must be monitored. SCUBA divers engaged in rescue work, or the recovery of the bodies of drowning victims, incur much the same health risks as commercial divers. Forensic identification

technicians work with a variety of chemicals from fingerprint powder to cyanoacrylate while forensic laboratory personnel routinely work with a wide variety of chemicals and solvents. Forensic laboratory personnel involved in DNA typing also work with isotopes, usually P32.

The Health Services Directorate of the RCMP has developed a periodic occupational health assessment which is specifically designed for police work and which enquires about known stressors and risks associated with this occupation. The assessment is different from a periodic medical in that it was designed to reflect the interests of all four sections of the health services directorate. There are specific enquiries designed to assess accident risks and safety issues while other sections deal with lifestyle choices such as diet, exercise, alcohol and cigarette use. The periodic health assessment is administered by the divisional Health Services Officer or by a Force designated physician who has been sensitised to the issues specific to police work. There is an accompanying guide for designated physicians to assist in the uniform administration of the Periodic Health Assessment. There is evidence that work site screening can improve certain parameters of health in policing.<sup>6</sup> All police officers undergo this assessment at two yearly intervals.

Embedded in the Periodic Health Assessment is an assessment of occupational exposures, occupational stressors, and a psychological screen for emotional disturbances in order that the member may be referred to a Force psychologist if required. The lifestyle enquiry will determine whether the member has developed maladaptive coping mechanisms. The RCMP is committed to the philosophy that its members are its greatest asset and to the corollary that the care of its members is the care of the Force. A variety of health promotion programs have been initiated, since it is known that work site screening and education can improve employee health, - and that regular aerobic exercise can improve the physical and mental<sup>9-12</sup> health of individuals.

In keeping with this philosophy, the occupational exposures of the specialist members have been examined and periodic health assessments tailored to specific occupational exposures. These assessments may include specific blood tests, X-rays or spirometry depending on the specific exposures of the member. In addition to this periodic health assessment the health and safety section monitors the use of safety techniques and equipment throughout the Force. This section also evaluates new equipment from the health and safety viewpoint and monitors work related accidents. Accidents are investigated to determine future prevention.

While many occupational exposures are well-known

others are incompletely studied. Measures such as periodic blood lead levels in armourers, or periodic long bone X-rays in divers are well understood. Liver and renal function testing among laboratory personnel working with aromatic hydrocarbons and various solvents are easily justified.

There is, however, a variety of exposures about which little is known. Cyanoacrylate, for example, is used in uncovering latent fingerprints. The possibility of respiratory sensitization with this compound has been raised.<sup>13-15</sup> The Occupational Health Section of the Health Services Directorate is currently performing an epidemiologic study to determine whether asthma is more prevalent among individuals who routinely fume this compound to uncover latent prints. Similarly, this section has been involved in the planning of a study to determine cancer prevalence in police officers using hand-held 'radar guns'. This type of research is required to ensure monitoring of occupational hazards as police work evolves and new techniques become commoner.

All of this activity, directed towards the occupational health of police officers, must be assessed to see if it is effective. To that end the Health Services Directorate has developed the Health Services Information System. This is a computerized central data bank which provides an ongoing assessment of accident and sick leave and includes a diagnostic code that gives the reason for sick leave. This system will be expanded to include data gathered from the periodic health assessment and will allow the directorate to monitor trends in the health of members. In this way health maintenance and health enhancement programs can be assessed for efficacy and adverse trends in member health can be identified so that efforts can be made to determine the cause of such trends and deal with it in a constructive manner.

In summary, police medicine covers more than clinical forensic medicine and includes occupational health for the occupation of policing. This occupation is unique and requires the continued development of a particular medical expertise applicable to this profession. 'Police Occupational Health Physician' can be added to the list of possible titles for those doctors whose work interfaces between medicine and police

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