

# MSP MESTRADO EM SAÚDE PÚBLICA

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Exposição Ocupacional em Piscinas Cobertas do tipo I e II  
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**EXPOSIÇÃO OCUPACIONAL EM PISCINAS COBERTAS DO TIPO I E DO TIPO II**

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## Abstract

The search for swimming pools for the practice of sports, recreational or therapeutic activities has been gradually increasing in recent years, in recognition of the beneficial effects in terms of health promotion associated with its regular use. However, some deficiencies have been perceived related with the conception and management of swimming pools, leading to the identification of hazards of different kinds, namely physical, biological and chemical, related with its use. All these hazards may have consequences in pool workers health, depending on the nature of professional activity. Recent data suggest that the use of chlorine or chlorine products in pool water disinfection may affect respiratory health, not only of bathers, but also of workers, namely swimming monitors and teachers, being considered an occupational health issue.

There is an absence of legislation in our country to deal with all these potential hazards to public health, and only a few directives that lack legal enforcement and are based on voluntary accomplishment are available.

The present study aimed to identify the main health hazards related with occupational exposure in indoor swimming pools in an urban council, and to propose preventive measures regarding the identified hazards. An evaluation was performed in each of the selected pools, using a questionnaire created by the national Directorate of Health to characterize structural and functioning conditions. During the inspections we were allowed to get access to the analytical data on water quality of the pool tanks in the period between January 2nd 2006 and June 30 2009, and to evaluate the management procedures regarding pool water quality. In order to characterize the symptoms referred of workers, related with working sections, and to know their perception of indoor working conditions, an adaptation of the validated MM040 EA questionnaire was used (portuguese version). This tool was developed in the Medical Center Hospital, in Örebro (Sweden), to evaluate self-referred symptoms and indoor environments perception.

The main conclusions withdrawn from this study include the lack of uniform criteria among the pools regarding water monitoring (especially intervals of water collection and analysed parameters), which may be due to the lack of legal norms. Another finding was that only one pool had implemented an air quality control program, a factor that contributes to the unawareness of indoor air Professional exposure in swimming pools. The “Intrinsic Risk” (IR) related with chemical products exposure revealed an increased risk in water treatment operators and maintenance technicians. This risk is mainly associated with handling of chemicals and its storage conditions.