JESSICA WESTERLUND is working as an occupational hygienist at the Department of Occupational and Environmental Medicine at Örebro University Hospital. In her role as an occupational hygienist, she works to identify and evaluate patients' exposure to hazardous substances in their work or home environment. In recent years, she has also conducted doctoral studies in medicine with a focus on biomedicine at the Department of Medical Sciences at Örebro University.

Public indoor swimming pool facilities are common and found in many Swedish municipalities where they offer play, sports and relaxation. To keep the water free from pathogens, the water is disinfected, and the most common disinfection method is adding chlorine to the water. Chlorine is an effective disinfector, but can also give rise to disinfection by-products, some of which are known to cause adverse health effects among visitors and employees of indoor swimming pool facilities. Trichloramine is a disinfection by-product that can be present in the ambient air of swimming pools where it can irritate eyes and airways. Trihalomethanes is another group of disinfection by-products found in the air of swimming pool facilities, and some of them are classified as potentially carcinogenic to humans. In addition, the warm and humid environment in the swimming pool facilities may also promote the growth of bacteria, which may also cause respiratory health effects. The overall aim of these studies was to measure levels of trichloramine, trihalomethanes and endotoxins in the air at conventional, habilitation and rehabilitation, and adventure swimming pool facilities, and to investigate adverse ocular and respiratory effects among indoor swimming pool workers.

ISSN 1652-4063
ISBN 978-91-7529-449-0

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2022

Doctoral Dissertation

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– adverse respiratory and ocular effects among Swedish indoor swimming pool workers

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Medical Science with a specialisation in Biomedicine

Örebro Studies in Medicine 264 | ÖREBRO 2022

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