

# Is it safe to swim in the time of Covid-19?

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## **Presentation Abstract**

Swimming was and still is affected by the containment measures due to the pandemic spreading of Covid-19. Both on a local and global scale, quarantine and lockdown measures dramatically impacted on different sectors, stopping also the access to recreational and sport activities. At individual level as well as on a population scale, the sudden and extensive reduction in physical activity is considered a relevant factor for incrementing the disease burden in the next years. Compared to other sports and recreational or socioeconomic activities, swimming raised additional public health concerns, due to the presence of the water and the possibility of a hypothetical indirect transmission of SARS-CoV-2; even if COVID-19 spread mainly by direct transmission from person to person, through droplets. Even if water could represent a vehicle, swimming safety relies on: i) epidemiology: the exposure probability and availability of local data and policies; ii) microbiology and infectivity: pathogen resistance and satisfaction of the risks chain of infection in water, iii) hygiene: water treatments and disinfection procedures. Contamination can occur through biological fluids such as saliva, nasal secretions, faecal traces, but contagion would require a series of events including low dilution, low disinfection and high frequency of carriers, since the SARS-CoV-2 is an obligate parasite and cannot survive self-replicating in the environment. Knowledge, awareness and empowerment represent the keynotes to manage safe swimming in the time of Covid-19. Prevention is not based on theoretical expectations but on quantified risk-benefit ratios, involving both the socioeconomic issues and the health threats.