Created for BJSM by Dr Anna Onderková

Surfing & Health

Cardiovascular exercise

Recreational surfers of all ages can achieve a workout of sufficiently high intensity and duration for cardiovascular health

Physical activity breakdown

in recreational surfing

Paddling	Stationary	Wave-riding
55%	34%	3-8%

Competitive events include high-intensity intervals of paddling with short recovery periods, more low-intensity paddling and intermittent breath-holding

Sun exposure in surfers leads to pterygium & an increased skin cancer risk

Exposure risks

Water exposure can lead to swimmer's ear & external auditory exostosis

Intermittent weather-dependent sport, so surfers can spend up to 4h in the water

Recent Olympic debut: Tokyo 2020

Surfing injuries are on the rise

as the popularity of the sport surges

Commonly perceived as dangerous but relatively safer than many other sports

Risk of drowning from exhaustion in attempts to surface against multiple turbulent waves.

#1 Head, Face & Neck injuries may result from board contact.

C-spine fractures from collisions with the seafloor may be catastrophic.

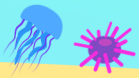
Overuse injuries of the back and shoulders are common.

#2 Lower limb injuries

Wetsuits may offer laceration protection.

Acrobatic manoeuvres increase risk of joint and muscle injuries

Marine-life-related injuries are mostly due to jellyfish, sea urchins and stingrays. Shark attacks are extremely rare.



Mental health benefits

A single 30 minute surfing session improves mood and feelings of tranquility.

Regular surfing improves confidence, self-esteem and well-being.

References:

Colpus S, Taylor J. Ride every challenge: The impact of surfing on 100 young people facing personal and emotional challenges. British Journal of Sports Medicine. 2014;48(21).

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Minasian B, Hope N. Surfing on the World Stage: A Narrative Review of acute and overuse injuries and preventative measures for the competitive and recreational surfer. British Journal of Sports Medicine. 2021;56(1):51–60.

Pittsinger R, Kress J, Crusemeyer J. The Effect of a Single Bout of Surfing on Exercise-Induced Affect. International Journal of Exercise Science. 2017;10(7):989-999.

Infographic: Surfing & Health

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Surfing is an ancient sport that has become increasingly popular and recently debuted on the world stage in the 2020 Tokyo Olympics.[1] With more people taking up the sport, it is crucial to examine the holistic effects of surfing on mental and physical health.

Surfing as a physical activity

Surfing is moderate-to-vigorous exercise, and recreational surfers of all ages can achieve sufficiently high exercise intensities and durations to satisfy recommendations for cardiovascular health.[2] It entails paddling, stationary anticipation of a wave, and actual wave-riding.[1] The remaining time may be spent breath-holding underwater, swimming, or wading.[2] Time spent on each activity will vary with weather conditions, experience, and whether they are competing or surfing recreationally.[1]

Exposure risks

Surfers may spend up to 4 hours in the water when conditions are optimal, leaving them vulnerable to harmful radiation from the sun, which may lead to surfer's eye (pterygium) and skin cancer. Both conditions are preventable with ultraviolet protection. Similarly, long-term cold water exposure risks external ear infections and bony growth development (external auditory exostosis).[1]

Caution: Injuries on the rise

As the popularity of the sport surges, so does the number of reported surfing injuries. These injuries may be acute, most commonly surfboard head injuries, or chronic, from strain on the musculoskeletal system, particularly the back, shoulders and lower limb joints.[1] This spectrum of injuries ranges from jellyfish stings and minor lacerations to cervical spine fractures in wipe-out and the potential to drown in turbulent waters.

Surfers' experience level, age and form also influence injury patterns. Novices risk surfer's myelopathy, a rare, poorly understood condition linked to spine hyperextension during paddling. Older surfers risk rotator cuff injuries, bursitis, impingement syndromes, and catastrophic neck injuries. Aerial manoeuvres increase the likelihood of ankle and knee injuries, such as anterior cruciate ligament tears and meniscal injuries. However, the incidence of injuries in surfing compared to other mainstream sports is very low.[1]

Mental Health Benefits of Surfing

Surfing significantly increases positive affect and tranquillity while decreasing negative affect and fatigue. [3] Furthermore, regular surfing improves confidence, self-esteem and well-being, particularly in young people with emotional and personal challenges.[4]

Future research

Injury prevention strategies require further promotion and investigation, including an emphasis on teaching surfing etiquette, how to overcome the perceived incompatibility of protective aids with surfing culture,[1] and experienced surfers teaching novices in calm conditions. More research and discussion about the potential health risks and benefits of surfing are needed to promote awareness within the community.

References:

1. Minasian B, Hope N. Surfing on the World Stage: A Narrative Review of acute and overuse injuries and preventative measures for the competitive and recreational surfer. British Journal of Sports Medicine. 2021;56(1):51–60.

2. LaLanne CL, Cannady MS, Moon JF, Taylor DL, Nessler JA, Crocker GH, et al. Characterization of activity and cardiovascular responses during surfing in recreational male surfers between the ages of 18 and 75 years old. Journal of Aging and Physical Activity. 2017;25(2):182–8.

3. Pittsinger, R., Kress, J. and Crusemeyer, J., 2017. The Effect of a Single Bout of Surfing on Exercise-Induced Affect. International Journal of Exercise Science, 10(7), pp.989–999.

4. Colpus S, Taylor J. Ride every challenge: The impact of surfing on 100 young people facing personal and emotional challenges: Table 1. British Journal of Sports Medicine. 2014;48(21).