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Infographic. Thermoregulatory impairment in athletes with a spinal cord injury

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Presented in this infographic is a summary of studies investigating the thermoregulatory impairment of athletes with a spinal cord injury (SCI) during real-world sporting scenarios. The infographic depicts the heightened thermal strain experienced by athletes with tetraplegia (high-level lesions), both compared with athletes with paraplegia (low-level lesions) and within the sport of wheelchair rugby. In addition to the cooling interventions presented, the infographic highlights the significant need for appropriate interventions to reduce the risk of overheating and potential performance decrements. This infographic was field tested with those who work within a wheelchair sports environment, ranging from practitioners, researchers, athletes with an SCI and sports clinicians. The experimental studies were also designed in consultation with the wheelchair rugby coaches and players.

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References


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REFERENCES


