



Physical Activity, Exercise, and Sports Participation During Recent Regional Instability: Implications for Iranian Populations

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War and instability can have long-term adverse effects on population health by disrupting opportunities for regular physical activity (1). Evidence from the public health and sports literature suggests that such instability may have broader implications for physical activity, exercise, and sports participation among Iranian populations, with important consequences for public health and sports medicine. Therefore, the international public health and sports medicine communities should recognize war-related disruptions to physical activity as an important concern.

Physical activity is essential for physical and mental well-being. Regular exercise reduces the risk of noncommunicable diseases, improves metabolic and cardiovascular function, strengthens bones and muscles, and supports psychological health (2). However, living in conflict-affected settings can limit opportunities for routine physical activity because multiple factors create an environment that promotes inactivity.

People living in conflict-affected urban settings may feel unsafe leaving their homes to be physically active. Fear of attacks or alarms, movement restrictions, and uncertainty about personal safety may reduce their willingness or ability to leave home and exercise. Psychological distress, including stress, anxiety, depression, and trauma-related symptoms, may further reduce motivation or capacity for physical activity (3). Thus, physical inactivity in conflict zones is related not only to motivation but also to prolonged psychological strain.

Conflict can also disrupt access to facilities and safe spaces for exercise. The closure of sports facilities, gyms, and recreation centers because of security concerns or

structural damage limits opportunities for physical activity. One example of sports infrastructure disruption is the reported damage to facilities within Iran's Azadi Sports Complex, which includes an indoor arena with a capacity of 12,000 people (4). Evidence from diverse crises shows that when recreational facilities are destroyed or made inaccessible, communities lose central spaces that support both competitive and recreational physical activity (5).

Physical inactivity has serious health consequences. Reduced physical activity is associated with a higher risk of cardiometabolic disease, lower physical fitness, diminished capacity to perform daily activities, and poorer mental health (2, 6, 7). Because conflict-affected populations already face substantial pressures and may have reduced access to routine medical care, the delayed effects of inactivity can place an additional burden on the health care system. From a public health perspective, these effects may persist long after immediate security threats have subsided.

Conflict-related disruption may also affect athletes and sports organizations. The cancellation of league competitions, interruption of structured training and organized practice, reduced access to coaches and training facilities, and deterioration of regular conditioning may adversely affect physical fitness and athletic readiness. Evidence from previous large-scale disruptions, particularly the COVID-19 pandemic, suggests that prolonged absence from training can lead to deconditioning and may increase injury risk when athletes return rapidly to sport (7). These concerns apply not only to professional athletes but also to youth athletes, recreational athletes, and physically active individuals

whose regular exercise routines have been interrupted. Travel restrictions, organizational changes, and event cancellations may also impede preparation for major competitions, including international events.

Athlete safety, mobility constraints, and reduced continuity of training may impair performance and readiness during such disruptions (8). These issues are particularly important for athletes preparing for major international competitions because consistent access to high-quality training is a central component of preparation.

These challenges require a pragmatic, multilayered response tailored to different stakeholder groups. For the general population, health authorities should promote safe forms of physical activity that can be performed in limited spaces, including home-based body-weight exercises, indoor aerobic activities, and mobility training, with remote support where feasible. For athletes, coaches and sports medicine teams should develop individualized conditioning plans and provide remote supervision when in-person training is disrupted. Athletes returning to sport after a period of inactivity may face an increased risk of musculoskeletal injury; therefore, reconditioning should be progressive and medically informed. This approach is particularly important for youth, competitive, and injured athletes. Sports organizations should also adopt flexible schedules, support staged return-to-training programs, and maintain access to coaching and monitoring during periods of disruption (7-10).

This editorial should be interpreted in light of the current lack of specific data on how regional instability has affected physical activity levels in Iran. The issues discussed are informed by general evidence on the effects of conflict on physical activity and by reasonable inferences regarding the Iranian context. Further monitoring and research are needed to evaluate the public health and sports medicine implications of these disruptions.

In conclusion, physical inactivity during conflict should be recognized as a neglected public health consequence of regional instability. Psychological stress, environmental constraints on routine activity, fewer opportunities to participate in structured sports, and reduced overall physical activity may adversely affect the short- and long-term health of Iranian populations. Sports medicine specialists, public health officials, and the broader sports community should take this issue seriously because it affects both the general population and athletes. Sports medicine professionals should develop safe and adaptable strategies for maintaining physical activity during uncertain periods, public health practitioners should include physical activity in contingency planning, and

sports organizations should work to preserve access to exercise and training opportunities.

Footnotes

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