

# Sports medicine leaders working with government and public health to plan a 'return-to-sport' during the COVID-19 pandemic: the UK's collaborative five-stage model for elite sport

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The WHO declared COVID-19 a global pandemic on 11 March 2020.<sup>1</sup> On 20 and 23 March 2020, faced with a rising number of both COVID-19 cases and deaths, the UK government imposed a range of measures in an attempt to control the pandemic in the UK. Although individuals were allowed to run and cycle outdoors, these instructions effectively put sport on hold, resulting in widespread training disruption to the elite athlete population.

## COLLABORATING TO FORM 'ONE VOICE'

The chief medical officers of many of the major Olympic, Paralympic and Professional Sports in the UK formed a group to share thinking around how elite sport might best plan for a return at the appropriate time. While it was acknowledged that there were fundamental differences between the sports, including but not limited to current and future competition schedules, financial and personnel resources, potential risks of COVID-19 transmission between participants and

their ability to align with any relaxation of population social distancing (SD), a collaborative approach to planning 'how' elite sport might restart was agreed to be the most effective manner to inform a single dialogue with government and Public Health England.

Central to this approach was the development of a five-stage model (figure 1) that set out the discrete stages that sport would need to progress through, to ultimately return to unrestricted competition, starting with stages with a lower risk of COVID-19 transmission. It was hoped that this model would help create a consistent taxonomy when in conversation with government, health agencies, athletes, coaches and sports administrators.

Carmody *et al*<sup>2</sup> proposed an approach to the risk assessment of sporting events, based on WHO guidance that informs much of the planning within stages 3, 4 and 5. It is also recognised that the stages may need to be descended, or progress paused, depending on the disease epidemiology within wider society and the government and public health response.

Our group's focus has been how best to plan, question, brief and ultimately influence and co-produce government-approved guidance documents. Protecting the well-being of the athlete, support staff and spectators have remained a priority throughout. The guidance has also needed to accommodate our rapidly evolving understanding of the science while not adversely affecting the whole population R number, nor negatively impacting key healthcare resources, including personal protective equipment.

The guidance provides a framework for each sport in the UK to progress, from the 23 March position (stage 0) to stage 1 (the organised training of individual elite athletes) in hygiene optimised performance facilities while maintaining SD at all times. Sports can then progress to stage 2 (close contact group and team training) where for a number of the sports involved SD or avoidance of sharing sports specific equipment/items, cannot practically be maintained or avoided at all times, and subsequently to stage 3 (competition behind closed doors where SD often cannot be maintained at all times and opposition are included). Following discussions with UK Sport and the Department of Culture Media and Sport, minimum practice guidance for stage 1 was published on 13 May 2020,<sup>3</sup> stage 2 on 25 May 2020<sup>4</sup> and stage 3 on 30 May 2021.<sup>5</sup>

The stage-specific guidance highlights the minimum standards that elite sports will need to meet at all times. All existing current government and Public Health England (PHE) guidance remains applicable unless otherwise specified. A summary of the key considerations for each stage are as below in table 1.

The guidance for each stage builds on the approach and principles set out in the guidance for the previous stages. In stage 2

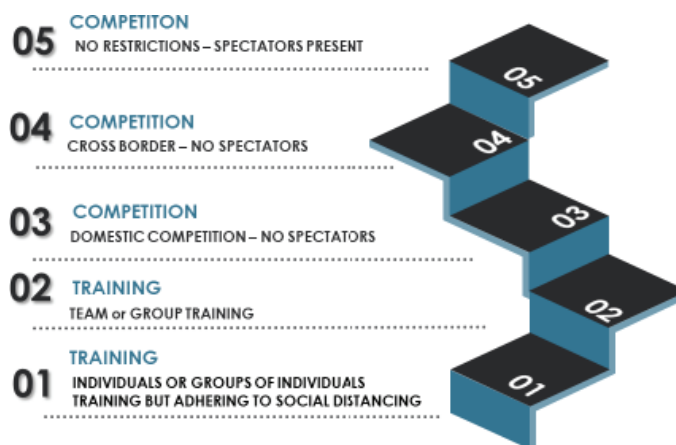


Figure 1 Five stages for the resumption of elite sport in the UK.

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**Table 1** A summary of the key considerations for stages 1–3

Stage 1 Individuals or groups of individuals training but adhering to strict social distancing at all times	Stage 2 Close contact training for groups of athletes or teams where strict social distancing cannot be observed at all times	Stage 3 Domestic competition – no spectators
Maintenance of strict SD both within and outside of the training environment. Named COVID-19 officer and medical leads Risk assessment and risk mitigation plan. Athletes and support staff to actively ‘opt in’ with clear education, written consent and without discrimination. Defined policies for: ▶ Vulnerable individuals or those in a household with vulnerable individuals. ▶ Physician review before starting stage 1. ▶ Daily symptom screening. ▶ Sports to consider daily temperature testing. ▶ COVID-19 case management, notification and contact tracing as per PHE guidelines. ▶ Facility and equipment cleaning standards.	Maintenance of strict SD at all times aside from close contact training activities. Risk assessment and mitigation strategy with specific reference to the number, duration and nature of close and face-to-face contacts during all training activities. Training activities, where possible to take place outdoors, and modified so that close and face to face contact is kept to a reasonable minimum consistent with effective training. Changes in training practice and environments such that there is avoidance of shared equipment /surfaces wherever possible. Meticulous records of player groups and interactions are to be kept. Athletes and support staff to actively ‘opt in’ with clear education, written consent and without discrimination. Sports to assess the need for enhanced testing over and above symptom screening.	SD maintained wherever possible, supported by venue zoning with a priority on separating athletes and their support staff and personnel from all other user groups in the venue. Risk assessment and mitigation strategy where SD is not possible, including field of play and team areas. Clear roles and responsibilities and decision making structure between competition delivery partners and elite sport organisations. COVID-19 competition venue and COVID-19 risk assessment and mitigation plans. Athletes, support and event user groups to actively ‘opt in’ with written consent and without discrimination.

PHE, Public Health England; SD, social distancing.

where strict SD in some sports cannot be observed during all training activities, the risk of COVID-19 transmission between athletes is consequently increased. The stage 2 guidance highlights the role of enhanced screening protocols for athletes and support staff, together with minimising close and face-to-face contact activities, consistent with effective training in mitigating this risk. The potential for significant disruptions to teams, squads and competition as a result of the isolation requirements both for athletes confirmed with COVID-19 and their close sporting and non-sporting contacts is recognised. Levels of community transmission are anticipated to be an important factor in the decision of sports with a greater risk of close and face to face contact as ‘when’ to return to stage 2 (and subsequently stage 3). The guidance for step 3 (competition without spectators) builds on the approach and principles set out in the step 1 and step 2 guidance with specific considerations for competition where strict SD cannot be observed at all times.

These guidance documents, read in conjunction with existing guidance around the risk assessment and minimum standards for competition,<sup>6,7</sup> provide the major elite UK sporting organisations with a quality assured framework to plan ‘how’ they might return. Further consideration is needed to determine ‘when’ a return is appropriate. It is envisaged that for an individual sport, this will be based on a sport specific risk assessment, close consultation with relevant public health authorities and consideration of the time needed to safely recondition its athletes.<sup>8</sup>

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**REFERENCES**

- World Health Organisation. Who Director-General’s opening remarks at the media briefing on COVID-19. Available: <https://www.who.int/dg/speeches/detail/whodirector-general-s-opening-remarks-at-the-media-briefing-on-covid-19> [Accessed 11 Mar 2020].
- Carmody S, Murray A, Borodina M, *et al.* When can professional sport recommence safely during the COVID-19 pandemic? Risk assessment and factors to consider. *Br J Sports Med* 2020;**54**:946–8.
- Department of Culture, Media and Sport. Elite sport return to training guidance: stage one. Available: <https://www.gov.uk/government/publications/coronavirus-covid-19-guidance-on-phased-return-of-sport-and-recreation/elite-sport-return-to-training-guidance-step-one-2> [Accessed 13 May 2020].
- Department of Culture, Media and Sport. Elite sport return to training guidance: stage two. Available: <https://www.gov.uk/government/publications/coronavirus-covid-19-guidance-on-phased-return-of-sport-and-recreation/elite-sport-return-to-training-guidance-stage-two> [Accessed 21 May 2020].
- Department of Culture, Media and Sport. Elite sport return to domestic competition guidance: stage three. Available: <https://www.gov.uk/government/publications/coronavirus-covid-19-guidance-on-phased-return-of-sport-and-recreation/elite-sport-return-to-domestic-competition-guidance> [Accessed 1 Jun 2020].
- World Health Organisation. Considerations for sports federations/sports event organizers when planning mass gatherings in the context of COVID-19, 2020. Available: [https://apps.who.int/iris/bitstream/handle/10665/331764/WHO-2019-nCoV-Mass\\_Gatherings\\_Sports-2020-1-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331764/WHO-2019-nCoV-Mass_Gatherings_Sports-2020-1-eng.pdf)
- Hughes D. In the frame, road map for Australian sport on an uncertain journey through COVID-19. *J Sci Med Sport* 2020;**23**:636–8.
- Stokes KA, Jones B, Bennett M, *et al.* Returning to play after prolonged training restrictions in professional collision sports. *Int J Sports Med* 2020. doi:10.1055/a-1180-3692. [Epub ahead of print: 29 May 2020].