

Risk assessment RA17 Bicycle ergometers

<https://sportsiencesafety.stir.ac.uk>

Faculty / Service Area	Faculty of Health Sciences and Sport	Location	Sport Science laboratories, other
Description of work task / equipment /area being assessed			
Bicycle ergometers			
Change log	Version 1.1	29 Aug 2022	Expanded this section
	Version 1.2	11 July 2023	Referenced regulations and SOPs
Head of faculty	Prof Jayne Donaldson	Safety officer	Dr Nidia Rodriguez Sanchez
Completed by	Dr Stuart Galloway	Date	22 Jul 2020
Reviewed by	Dr Nidia Rodriguez Sanchez	Date	11 July 2023
	Chris Grigson	Date of next review	August 2024
Equipment used	Monark 894 peak, Wattbike, Lode Excalibur, Lode Corival		
Categories of people involved	Staff, UG, PG, Visitors		
Duration of activity	<3hrs	Frequency of activity	Daily
Legal compliance to standards and regulations required	Health and Safety at Work act 1974 (HASAWA) https://www.hse.gov.uk/legislation/hswa.htm Management of Health and Safety at Work Regulations 1999 (MHSWR) https://www.legislation.gov.uk/uksi/1999/3242/contents/made Provision of Work Equipment Regulations 1998 (PUWER) https://www.hse.gov.uk/work-equipment-machinery/puwer.htm		

		Manual Handling Operations Regulations 1992 (MHR) https://www.hse.gov.uk/pubns/priced/l23.pdf							
What are the hazards?	Hazard category	Who might be harmed and how?	What are you already doing to control the risks?	*Risk rating	What additional controls (if any) are required to reduce the risks?	*Risk rating	Action by who?	Action by when?	Date of completion
Overexertion	F4	User Low blood pressure - fainting High blood pressure episode Cardiac arrest Muscle fatigue Cramp Joint pain Pulled muscles, ligaments and tendons. Dizziness Hyperventilation Nausea Exhaustion	Risk assessment RA01 and RA02 Participants must go through health and fitness screening before use Only trained investigators allowed to use machine All users instructed to warm up before and down after the test All users instructed to stop if they experience unusual symptoms during the test	1x4=4					
Pinch points, and crushing hazards	F4	User Crush injuries Shearing injuries	SOP with clear instruction on correct use of machine. Machine guarding	1x2=2					

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			<p>Regular inspection and testing of guards</p> <p>Signage warns of the hazards</p> <p>Instruction on safety features of the machine including guards</p> <p>Users instructed not to put any part of their body or any object close to a pinch point</p> <p>Any injury to be reported to safety officer and advice sought from a first aider.</p> <p>First aid box by in Cottrell 3b142b and Pathfoot C3</p> <p>List of first aiders on door</p> <p>Annual service</p>						

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Slips, trips and falls	F4	User Trips over machine frame Collisions with machine Falls while the machine is running	SOP Area around machine to be kept clear of debris Floor, grips, straps and belt to be cleaned regularly and checked for adequate grip before the machine is used Users instructed to guide fatigued subjects away from machine to a safe resting place Area around machine to be kept clear of sharp edges from eg furniture brought in from another area First aid box close by in Cottrell 3b142b and Pathfoot C3 List of first aiders on door	1x2=2					

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Jewellery and inappropriate clothing	F4	User Cuts and lacerations Limbs caught up in clothing during exercise	SOP User instructed to remove jewellery and inappropriate clothing before test	1x1=1					
References and Further reading	<p>Preparticipation medical evaluation for elite athletes https://bmjopensem.bmj.com/content/bmjosem/7/4/e001178.full.pdf</p> <p>Standard Operating Procedures Lode Excalibur Lode Corival Monark 894E</p> <p>Laboratory Risk Assessments RA80_TeachingLab_L19 RA81_ResistanceLab_3B140 RA82_PhysiologyLab_3B142 RA83_NeuromuscularLab_3B142D RA84_MultipurposeLab_3A72</p>								