

RISK ASSESSMENT: INSTRUCTED CLIMBING SESSIONS

Activity: Teaching and supervising top-roping & bouldering

Generic risks				
Hazard	Who is affected?	Risk level	Severity	Control Measures
Top roping: Ground fall whilst climbing on top rope through: Attachment failure	Climber, persons in fall zone	Low	Worst case: Fatality	Qualified instructors to teach and supervise all group climbing activities. – minimum qualification being TCA's Site Specific Instructor's Award (in accordance with MT guidelines), CWI or RCI. Instructors to give thorough safety briefing to groups before climbing. Maximum instructor: student ratio: 1:9/10 – Also See TCA Instructed Courses (various sites) Connection to harness with a fig 8 knot or 2 back to back screwgate karabiners. Ensure that climber is attached securely to the rope by being checked by the instructor before each climb. Check all harnesses correctly fastened at beginning of session and monitor throughout. Care with different harness designs. Indicate the difference between gear loops and belay/abseil loop. Buddy checking.
Top roping: Ground fall whilst climbing on top rope through: Belayer error	Climber and belayer	Low	Worst case: Fatality	Thorough teaching of appropriate technique and belaying device by instructor. Constant supervision by instructor. Failsafe systems to be used until belayer assessed as competent: Use of Gri Gris as detailed in The Activities and Course documents. Back up buddy systems, instructor back up or overhand knots put into dead rope if the belayer cannot be trusted. Gri Gris black handle not to be touched by novices. Only Instructor to lower climbers with Gri Gris. Instructor to work with a maximum of 2 active lines with direct back up when teaching novices independent belaying. i.e on beginner or lead courses
Third person not pulling through Gri Gri	Climber	Medium	Medium	Safety briefing: the back up person should hold on to the rope at all times until the instructor takes over. The instructor can also physically back up ropes. Novice belayers using Gri Gris can be attached to the wall by a sling – where appropriate. Instructor vigilance – keep all active belay

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

				devices in line of sight.
Third person playing around or pulling belayer 1	Climber	Medium	Low	Briefing. Instructor intervention. Temporary exclusion. Novice belayers using Gri Gris can be attached to the wall by a sling
Unclipping the belay/climber	Climber & belayer	Low	High	Briefing. Instructor vigilance. Tie on 'risky' climbers – eg: autistic/PRU
Climbing before being checked.	Climber	Medium	Medium	Briefing. Instructor intervention. Instructors should keep their group together and have only two climbers off the ground at any one time while the third group are changing over on the ground. See Activities & Courses folder for further explanation.
Gri Gri cam failure	Climber & Belayer	Low	High	Thorough group briefing. Back up all Gri Gri's with 2nd belayer, instructor and/or knots (when appropriate). Beware new 10.2mm ropes w not locking with the original Gri Gri 1's and release very quickly if cam is depressed. Briefing. Back up Gri Gri's at all times.
SEN – all listed hazards above	All in climbing zone	Medium	Medium	Instructors should take time to ascertain the nature of the group, any relevant medical conditions and behaviour issues by talking to the group leader at the beginning of the session. Safety briefing must be clear and demonstrated in a practical way when it comes to belay and lowering systems. Instructors must take time to ensure that all in the group have understood this briefing and to establish an atmosphere of calm, attention and responsible behaviour. Use of specialised safety techniques for particular conditions. Eg: back rope for autistic climbers
Belayer lifted off ground and slammed into wall	Climber & Belayer	Medium	Medium	Appropriate pairing up of climbing partners. Light belayers to stand close to wall to avoid being slammed. Put twists in rope. Ohms can be used if there is no ground anchor.
Inversion (general)	Climber	Medium	Medium	Very small or very large climbers to wear chest harness and/or full body harnesses.
Entrapment/strangulation	Climber	Low	High	Hair to be tied back and loose clothing strings etc to be removed /tucked away. Rings and loose jewellery to be removed. Daisy chained ropes to be uncoiled / moved when climbers are traversing

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

				by them.
Climbers lowering/landing on group members	Group members	Medium	Medium/high	Safety brief. Awareness of overhead hazards. Instructor to closely manage the group's movement on the climbing floor. Spectators of groups (eg parents) to be carefully managed by instructors and asked to remain in cafe area when centre is busy.
Jump from height - Bouldering	Climber	High	Low	All TCA instructors hold current NGB qualifications. All participants to be safety briefed and told that crash matting does not prevent fall injuries. Climbers are instructed to climb down rather than jump of the bouldering wall. Safety briefing to include: appropriate behaviour, appropriate footwear, how to climb down, removal of all hard objects from person including harnesses, no liquids or food in room, no objects left on matting, removal of rings and inappropriate clothing/jewelry, warming up and prevention of sports injuries, spinning holds, supervision regime. First Aid qualified staff to be present on site with first aid kit and ice packs. Boulderers to climb apart from each other. Fall area to be kept clear of objects and other climbers. Matting to be kept clean and undamaged
Uncontrolled ground fall from height - Bouldering	Climber	Medium	Medium	All TCA instructors hold current NGB qualifications. All participants to be safety briefed and told that crash matting does not prevent fall injuries. Climbers are instructed to climb down rather than jump, but to avoid falling awkwardly by climbing within their ability or by the use of a planned jump. Safety briefing to include: appropriate behaviour, appropriate footwear, how to climb down, removal of all hard objects from person including harnesses, no liquids or food in room, no objects left on matting, removal of rings and inappropriate clothing/jewelry, warming up and prevention of sports injuries, spinning holds, supervision regime. Blocs are set to avoid awkward landings and if it becomes apparent that a bloc does encourage an awkward/uncontrolled landing, instructors will spot or stop group from attempting the bloc.
Hit by a falling climber - Bouldering	Climber, group and onlookers (teachers/youth workers)	Low	High	Safety briefing. The group is told not to walk/climb underneath each other. Onlookers are to be kept out of the climbing zone. In addition to the supervising instructor, centre staff periodically 'floor work'.
Broken Spinning	Climber	Low	Medium	Holds are to be tightened by trained staff and route setters. In addition to the fixing bolt, holds are

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

Holds				pinned to prevent spinning. Groups are made aware of potential risks.
Falling Objects	The group	Low	Low	Groups are asked to remove jewellery & all non climbing related objects from pockets and non related climbing objects are forbidden in the climbing zone.
Head Injuries: Entrapment & Strangulation	Climber	Medium	High	Climbers not to wear helmets during climbing sessions. All jewellery and loose clothing to be removed at start of activity. Loose jewellery and clothing removed before starting to climb.
Head Injuries: Falling object	Climber & Belayer	Low	Medium	Use setting/maintenance areas. Conditions of use specifies no belongings in pockets at any time. Instructor to ensure group participants have emptied pockets. Instructors move group through centre appropriately. Instructor takes charge of all equipment. Helmets worn during any abseiling sessions.
Head Injuries: Striking wall/holds whilst top roping	Climber	Low	Low	Risk no greater than walking through the centre. Instructor to ensure appropriate climbing technique.
Head Injuries: Striking wall/holds after an inversion whilst top roping	Climber	Low	Low	Instructor lowers or supervised lowering. Instructors to be vigilant and keep slack to a minimum whilst climbing.

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

Activity: Autobelays

Generic risks				
Hazard	Who is affected?	Risk level	Severity	Control Measures
Worst case: Ground fall whilst climbing	Climber belayer and others in fall zone	Low	Worst case: fatality	<p>Access procedures ensure participants complete an Auto Belay Induction, have completed a competency check and have read the conditions of use of the centre, or are supervised by competent adult or qualified instructor. Age 16 & 17 year olds who wish to climb without direct supervision must complete same registration procedure as competent adult climbers.</p> <p>Unsupervised climbing only allowed by 14 -15 year olds when their abilities have been satisfactorily assessed by a Senior Instructor, an additional parental consent form has been completed. Also See Youth Climbing Procedures. Inappropriate behaviour or careless climbing can result in loss of U18's privileged status or 'time out' in supervised or instructed sessions. CCTV allows area to be monitored and regular floor walks by CWI qualified rescue trained instructors. Rubber crumb to mitigate impact injuries. Qualified and trained staff monitor climbing activities. Daily inspection of auto belays. Maintenance scheule for auto belays</p>

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

Worst case: Ground fall whilst climbing (climber forgets to attach to auto belay screwgate)	Climber belayer and others in fall zone	Low	Worst case: fatality	<p>Access procedures ensure participants complete an Auto Belay Induction, have completed a competency check and have read the conditions of use of the centre, or are supervised by competent adult or qualified instructor. Age 16 & 17 year olds who wish to climb without direct supervision must complete same registration procedure as competent adult climbers.</p> <p>Unsupervised climbing only allowed by 14 -15 year olds when their abilities have been satisfactorily assessed by a Senior Instructor, an additional parental consent form has been completed. Also See Youth Climbing Procedures</p> <p>Risks of non attachment are explained in the inductions, auto belay gates block footholds at start of route. Climbers to perform a buddy check with supervisors/climbing partners and/or other wall users. Auto belays Rules are clearly displayed with in climbing area. Climbing Rules include 'Check before you Deck & Check before they Deck' reminder. The background colour and graphics of these signs are regularly changed to keep users attention. Participants on Autobelay inductions are emailed info on the safe use of an Autobelay. Users have to reregister every 3 years. Quickdraws left in wall for climber to attach to and await rescue. Duty managers trained to rescue 'stricken' climbers. Maintenance team and Routesetters trained to not set starting foot holds outside of warning triangle and utilise sign of form to indicate this has been done. CCTV allows area to be monitored and regular floor walks by CWI qualified rescue trained instructors.</p>
Worst case: Ground fall whilst climbing (tape fails)	Climber belayer and others in fall zone	Low	Worst case: fatality	Auto belays are inspected and maintained in-line with manufactures (Headrush Tech) recommendations. A check is made at the start of everyday. The induction tells users to do complete a retraction test before climbing. Participants on Autobelay inductions are emailed info on the safe use of an Autobelay. Users have to reregister every 3 years.
Worst case: Ground fall whilst climbing (retraction fails)	Climber belayer and others in fall zone	Low	Worst case: fatality	Auto belays are inspected and maintained in-line with manufactures (Headrush Tech) recommendations. Climbers/supervisors are told to perform a tape retraction test prior to use. Auto belays Rules are clearly displayed with in climbing area. Rules include tape retraction test.
Entrapment when descending	Climber belayer and others in	Low	Worst case: fatality	No helmets. No loose fitting clothes. No jewellery or watches. Auto belays Rules are clearly displayed with in climbing area. Rules include the non-use of helmets. Setters to consider impact of hold selection and sign off auto belay routes using the appropriate form.

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury

	fall zone			
Descending climber hits other belayer	Climber belayer and others in fall zone	Low	Worst case: fatality	Briefing and Auto belays Rules are clearly displayed with in climbing area. Rope climbing lines are not set immediately adjacent to autobelay lines.
Descending climber hits a roped climber	Climber	Low	Medium	Rope climbing lines are not set immediately adjacent to autobelay climbing lines.
Site Specific - The Arc				
Hazard	Who is affected?	Risk level	Severity	Control Measures
Outdoor auto belay impacted by weather conditions	Climber	Low	Low	Auto belays not in use when in poor weather conditions. This includes snow and ice, heavy wind and rainfall as well as thunder and lightening.
Auto belay climber hitting adjacent belayer	Climber and Belayer	Low	Medium	Maintenance staff aware of lines where this is a problem. Limit auto belays to positions that do not creat this hazard.
Use by unregistered non climbing member of public	Public non-climber	Low	Worst case: fatality	Auto belay on outdoor wall to be retracted when centre is closed. Member only access to climbing wall is via reception. Outdoor wall is accessible with membership card only. Keycard access is re-set every 24hrs.
Limited view of auto belays	Climber and Belayer	Low	Worst case: fatality	CCTV allows area to be monitored more regularly from the office and reception area. Regular floor walking by CWI qualified instructors. Inductions for all users.

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury



Detached auto belay user	Climber	Low	Worst case: fatality	Compulsory user inductions, CCTV allows area to be monitored and regular floor walks by CWI qualified rescue trained instructors.

The Climbing Academy

Risk: Low = very unlikely to happen, Medium = could possibly happen, High = likely to happen

Severity: Low = minor injury (cuts/bruises/sprains), Medium = serious injury (breaks, bleeding), High = disabling injury/death/head injury