



SAFE SPORT CLIMBING GUIDE

Think Safe. Play Safe. Stay Safe.

Sport
SINGAPORE

LIVE BETTER THROUGH SPORT

healthy lifestyle. It is tasked to promote safety throughout Singapore's sporting community and to inculcate a safety-first mentality in the minds of every stakeholder. Therefore, SportSG has set a corporate goal of zero injuries, in the belief that all accidents are preventable. Emphasising the need for personal accountability, SportSG also urges people to be responsible for the safety of others. For more information, please visit, <https://www.sportsingapore.gov.sg/Sports-Education/Sports-Safety>

Acknowledgment

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March 2022



the first permanent artificial climbing
at SAFRA Tampines. This was the
introduction of the national climbing
which was a significant national climbing
Singapore Sport Climbing and
Federation's (SSCMF) annual climbing

This sport is now growing rapidly.
There are now more climbing walls
in schools and premises of uniformed
and more than 40 climbing walls
gyms are currently being operated
and commercial agencies in Singapore

Sport climbing is, essentially, competitive.
However, it can also be enjoyed
all from as young as 3 years old.

The International Federation of
(IFSC) estimated that the sport's
popularity boom, with an estimated
people across the world climbing
hotspots in Japan and the US.

The sport demands incredible strength
muscle strength across the body
haul themselves up vertical and
gripping on to a variety of holds,
big enough for a fingertip.

The mental strength is equally
competitions, athletes are not allowed
wall before they compete, meaning
make quick, on-the-spot decisions

Singapore Sport Climbing and Mountaineering Federation (SSCMF).

courses are offered by SSCMF, and are available for beginners to

Level 1

system designed for people with no prior knowledge of sport

Level 2

Climbing that builds on the top-rope skills acquired from Level 1, and a progression into lead climbing on artificial climbing walls.

Level 3

Climbing that introduces the techniques of climbing bolted routes safely.

For the above syllabus, please refer to www.smf-climbing.org under



steeply sloped at a gravity-angle. The first climber can. Scoring of points difficulty. This is the only that is competed without

This type of rope has very little stretch to be used for climbing. It is primarily used for abseiling, or hauling. Static ropes have a multi-colored sheath or bright



Static rope

Dynamic rope

This type of rope can stretch to nearly 30% of its length, so that it is able to absorb the energy of a fall. Dynamic rope is only used for climbing. It has a multi-colored sheath or bright

metre-high wall. Climbers can. Scoring of points difficulty. This is the only that is competed without



Dynamic rope

Basic rope care

1. Keep your rope clean
Dirt particles are extremely abrasive to ropes. Always keep your rope clean. Avoid stepping on your rope. Avoid driving dirt particles deeper into the rope surface.
2. Care for your rope
Wash your rope in cold water together with a mild, non-detergent soap. Rinse thoroughly and air dry. Never bleach or machine dry your rope. Store your rope in a rope bag when you are not using it. Keep the rope away from harsh chemicals.
3. Use your rope correctly
Climbing ropes are designed for climbing only. Do not use them for any other purposes.



minutes to climb as far as the wall. Each competitor has to climb. In the event of a tie, the highest position (the highest position slip) will be recorded as

ide a self-lock buckle. The rope and belay device are attached at

also called a gym or club harness. Many gym or club establishments
The alpine harness is a one size fits all. This type of harness is less
s it comes with unpadded leg and waist loops. The harness comes
buckle. The rope and belay device are attached at the same points.

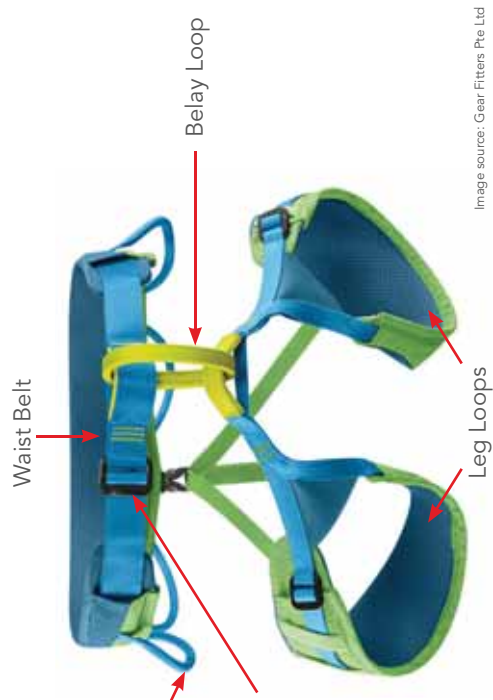


Image source: Gear Fitters Pre Ltd

recognize the type of harness you are using, particularly types of
rope and belay devices are attached. Ask if you are unsure.

SS
belt before you adjust the leg belts; otherwise, the waist belt might
low, resting on the hips, and you could fall out of the harness if

ur own harness before helping others with their harness.
s are doubled back, where appropriate.

shape works with a waistbelt-style harness.
There must be at least 4 inches of webbing extending out of
once it has been properly secured and doubled back.

Inspection

1. Inspect your climbing harness regularly for signs of wear and
2. Special attention to be made to the harness stitching and to the
3. Retire your climbing harness when it shows visible signs of wear, fading or abrasion, or after it has held a severe fall. Over time, it may get slightly fuzzy at the tie-in points. This is acceptable. If there is wear to the stitching or excessive wear to the tie-in points is not acceptable.

CARABINERS

Types of Carabiners

Carabiners are classified by their shape and gate-type. Each shape has its own advantages and disadvantages. Any carabiner next to you is a locking type. For belaying, a pear-shaped, screw gate carabiner is recommended.

Gates



Shape



performance climbs. This could result in an issue if you are not

El Capitan or in a competition.

Lace-up

These have a more secure fit.

Velcro

These are the most popular for easy fit.



Lace



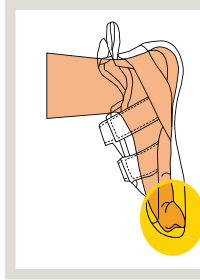
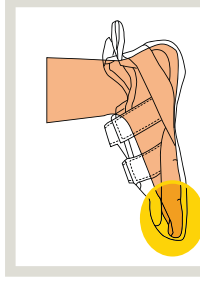
Velcro



Slipper

Shoe Fit

It is important to ensure that the chosen footwear fits the user. If the shoe is too loose, the toes will be pressed together so they cannot move. Your toes should feel that you are in pain. If it is painful, your shoes are too small. You need a shoe that provides a secure fit for climbing performance with the increased pain. The point is to keep the feet dry and prevent slipping, even when they are wet from sweat. This can be achieved by ensuring the shoes are just tight, but not painfully tight.



ion of the knee during a drop knee move can cause the meniscus or top knee movements as the knee is not made to rotate, but just to

d. Depending on the severity of the injury and how "professional" requiring complete healing, surgical intervention may be required, t to be worn post-surgery to allow proper healing of the operation n also be very helpful in the healing progress.

of muscle injuries

les are located at the top of your arm, joining your arm to your movements are typically responsible for straining or tearing rotator ally when reaching up for a hold at an awkward angle. Making like jumping to catch a hold can also overload the rotator cuff uries to it. Strains can be treated with rest and anti-inflammatories. eated with additional physiotherapy. Complete tears may require

Injury to the rotator cuff muscle typically affects the range of der.

y uncommon but possible whether climbing outdoors or climbing the event of witnessing a climber falling from height, call for immediately. The most important step would be to monitor the shing and circulation (ABC).

breathing or heart is not beating, immediately start CPR and get an and, if the ABCs are cleared, DO NOT move the climber. This is y spinal injury, inappropriate movement may aggravate it, and in io, cause paralysis.

icious, calm the climber and reassure him/her that the ambulance s any major bleeding, compress the injury with a clean cloth, and ber.

note the height at which the climber fell from, whether there was any movement from the climber after the fall, and any other so that these can be communicated to the paramedics to aid them elation. Once the paramedics arrive, they should allow the

Risk management is an on-going process that ensures safety is w the achievement of safety goals, and minimises the likelihood management process involves:

1. Risk assessment.
2. Communication of risks.
3. Review and monitoring of the risk assessment.

Key responsibilities should be clearly assigned to specific peo risk monitoring and review, communication, and training of te management. Everyone involved should be informed and awa standard of the risk management planning, by assigning appropr and review performance is a good practice.

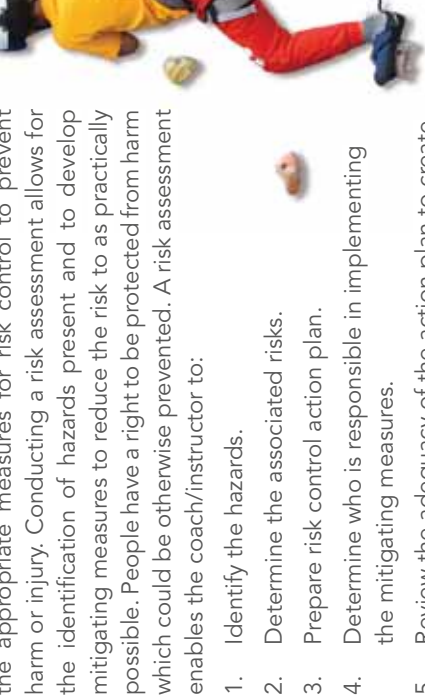
Risk assessment is an integral component of the safety and health With effective risk management, the potential costs and liabilit thereby enabling a safer sporting experience. Sport and recrea physical risk, which varies with the type and timing of the activity, skill level and number of spectators. Risks are managed thr likelihood and potential consequences, developing clear actio response plan. Legal compliance and insurance coverage should

Risk management documentation should include:

1. A comprehensive risk management plan.
2. An incident/accident register.
3. A post review/report.

The management of sports facilities should conduct risk assessments. This allows the sources of risks to be identified and reasonably practicable steps taken to eliminate any foreseeable risk to those involved. Where it is not possible to eliminate risk, other reasonably practicable measures must be taken to minimise risk.

Risk assessment can be made simpler with four (4) questions:



of accidents, injuries, and losses.
the appropriate measures for risk control to prevent harm or injury. Conducting a risk assessment allows for the identification of hazards present and to develop mitigating measures to reduce the risk to as practically possible. People have a right to be protected from harm which could be otherwise prevented. A risk assessment enables the coach/instructor to:

1. Identify the hazards.
2. Determine the associated risks.
3. Prepare risk control action plan.
4. Determine who is responsible in implementing the mitigating measures.
5. Review the adequacy of the action plan to create a safe environment.

A sample of a risk assessment form is as follow:

Identified Risks	Actions	When	Who
Participant Dehydration	Ask participants prior to session. Look out for those sickly or pale looking participants.	Beginning of the session	Instructors /Teachers
Tired and weary	Conducts periodic check every 15 minutes.	After every task	
Slip and fall	Ensure ratio of instructor to participants is 1:10.		
Insect bites and stings	Ensure participants in good condition sneakers/sports shoes and in sport attire.		
Is he/she appropriately			

	4	8	12	16	20
	3	6	9	12	15
	2	4	6	8	10
	1	2	3	4	5

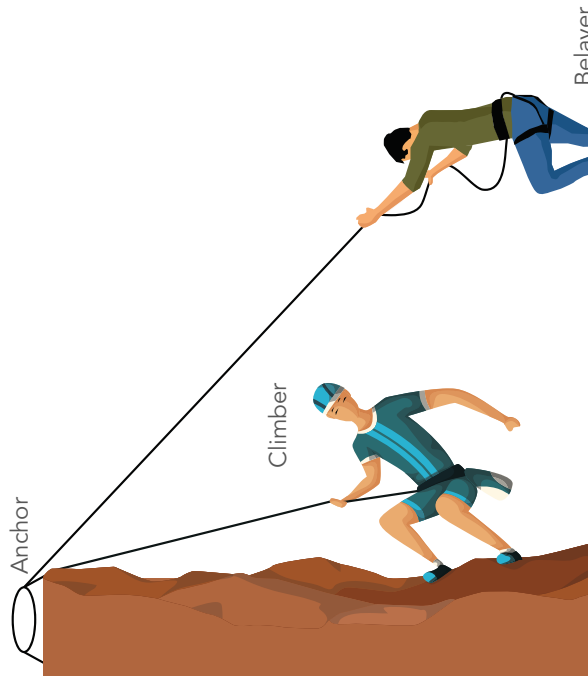
1	2. Risk Evaluation				3. Risk Control						
	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g
	Existing Risk Control (if any)	S	L	RPN	Additional Risk Control Measures	S	L	RPN	Implementation Person	Due Date	Remarks
	1.				1.						
	1.				1.						
	1.				1.						



at risk of accidental injuries in sport climbing, as in all other sports, when while undertaking the activity.

gate the effects of gravity and falling. Beginner climbers are most ts. Always use sound judgment; respect climbing dangers; take qualified SSCMF climbing instructors to learn how to climb safely. accidents happen because of climber's errors.

re embarking on climbing activities:
program/course from a qualified SSCMF Instructor
v with warming up exercises
esses and knots before climbing
and belay device
tion to your climbing partners
is established by the climbing gym/centre
e attire for your climb that allows a free range of motion



- Check harness
- Check double figure-8 knot
- Check correct length of tail



Climbing C

C — On Bel
B — Belay C

C — Climbin
B — Climb C

C — Lower r
B — Lowerin

Slack — Rel
Take in — Ta
Watch me!
Falling! — I'

Climber to Belayer

- Check harness
- Check if ATC is put on properly
- Squeeze check



	Climber	Belayer	Co (F)
Before climb activity	<ol style="list-style-type: none">1) Check harness.2) Check if ATC is put on properly.3) Squeeze and check carabiner.	<ol style="list-style-type: none">1) Check harness.2) Check double figure of eight knot.3) Check correct length of tail.	<ol style="list-style-type: none">1)
During climb activity	<ol style="list-style-type: none">1) Start climb.2) Slack if rope is too tight.3) Take in rope if rope is too loose.4) Lower climber if climber is coming down.	<ol style="list-style-type: none">1) "Climb On" to signal readiness.2) Monitor climber's rope; give and take-in rope, accordingly, based on climber's movement.3) Lower climber when asked to.	

For almost everyone, the benefits of physical activity far outweigh any risks. For some individuals, however, there may be some risks. If you are a person with a chronic health condition, you should consult your doctor before starting an exercise program. For people with a chronic health condition, the American College of Sports Medicine (ACSM) has developed a list of guidelines for exercise. For more information, visit the ACSM website at www.acsm.org. The ACSM also has a list of resources for people with chronic health conditions. This questionnaire is intended for people who are not at high risk for heart disease. If you are at high risk, you should consult your doctor before starting an exercise program. This questionnaire is intended for people who are not at high risk for heart disease. If you are at high risk, you should consult your doctor before starting an exercise program.

PREPARE TO BECOME MORE ACTIVE	
<p>The following questions will help to ensure that you have experience. Please answer YES or NO to each question below. If you are unsure about any question, answer NO.</p>	
YES	NO
1 Have you experienced ANY of the following (A to F) within the past 12 months ?	2 Do you currently have pain or swelling in any part of your body (such as your joints, muscles, or back) that affects your ability to be physically active?
3 Have you experienced any of the following (A to F) within the past 12 months ?	4 Do you have any other medical or physical condition (such as diabetes, asthma, spinal cord injury) that may affect your ability to be physically active?
A A diagnosis of/treatment for heart disease or stroke, or pain/difficulty in your chest during activities of daily living or during physical activity	
B A diagnosis of/treatment for high blood pressure (BP), or a restriction in your chest during activities of daily living or during physical activity	
C Dizziness or lightheadedness during physical activity?	
D Shortness of breath at rest?	
E Loss of consciousness/fainting for any reason?	
F Concussion?	



regarding the Get Active Questionnaire and how to administer it, click below for more details:

CURRENT PHYSICAL ACTIVITY

Questions to assess how active you are now.

How many days do you do moderate- to vigorous-intensity aerobic physical activity (e.g., brisk walking, cycling or jogging)?

DAYS/
WEEK

How many minutes per day do you do moderate-intensity aerobic physical activity (e.g., brisk walking), or do this activity?

MINUTES/
DAY

What is the average number of minutes per day that you do moderate-intensity aerobic physical activity?

MINUTES/
WEEK

Guidelines recommend that adults accumulate at least 150 minutes of moderate- to vigorous-intensity physical activity each week, or at least 60 minutes daily is recommended. Strengthening muscles and bones at least once a week, and three times per week for children and youth, is also recommended (see csep.ca/guidelines).

GETTING READY FOR BECOMING MORE ACTIVE

Gradually so that you have a positive experience. Build physical activities that you enjoy with a friend, ride your bike to school or work) and reduce your sedentary behaviour.

Intensity physical activity (i.e., physical activity at an intensity that makes it hard to carry on a conversation, but you can still talk to someone). To meet minimum physical activity recommendations noted above, consult a Qualified Exercise Professional (QEP). This can help ensure that your physical activity is safe and suitable for your circumstances. It is important to be part of a healthy pregnancy. If you are not feeling well because of a temporary illness.

All of the information I have supplied on this questionnaire is correct. I will complete this questionnaire again.

Questions on Page 1

I answered YES to any question on Page 1

Check the box below that applies to you:

☐ I have consulted a health care provider or Qualified Exercise Professional (QEP) who has recommended that I become more physically active.

☐ I am comfortable with becoming more physically active on my own without consulting a health care provider or QEP.

on below

f applicable) (Please print)

Signature (or Signature of Parent/Guardian if applicable)

Date of Birth

nal)

Telephone (optional)

Use this reference document if you answered YES to any question and you have not yet consulted a health care provider or Qualified Exercise Professional (QEP) about becoming more active.

1 Have you experienced ANY of the following (A to F) within the past 6 months?

A A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity?

☐ YES

Physical activity is likely to be beneficial. If you have a heart disease but have not completed a cardiac rehabilitation program in the past 6 months, consult a doctor – a supervised program is strongly recommended. If you are resuming physical activity after 6 months of inactivity, begin slowly with light- to moderate-intensity activity. If you have pain/discomfort/pressure in your chest, talk to a doctor. Describe the symptom and what you are doing to feel better.

B A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher?

☐ YES

Physical activity is likely to be beneficial if you have high blood pressure (BP). If you are unsure of your blood pressure, consult a provider or a Qualified Exercise Professional (QEP). If you are taking BP medication and your BP is under good control, your physical activity level so your medication needs to be monitored as it may help to lower your BP. If your physical activity level is 160/90 or higher, you should receive medical clearance before starting a safe and appropriate physical activity.

C Dizziness or lightheadedness during physical activity

☐ YES

There are several possible reasons for feeling this way. Before becoming more active, consult a provider to identify reasons and minimize risk. Until then, refer to your physical activity.

D Shortness of breath at rest

☐ YES

If you have asthma and this is relieved with medication, physical activity is safe. If your shortness of breath is not relieved, consult a doctor.

E Loss of consciousness/fainting for any reason

☐ YES

Before becoming more active, consult a doctor to rule out any medical risk. Once you are medically cleared, consult a Qualified Exercise Professional (QEP) about types of physical activity.

F Concussion

☐ YES

A concussion is an injury to the brain that requires medical attention. Physical activity while still experiencing symptoms may worsen the injury. Lengthen your recovery, and increase your risk for another concussion. Your care provider will let you know when you can start physical activity, and a Qualified Exercise Professional (QEP) can help you develop a safe and appropriate physical activity plan.

ment if you answered **YES** to any question and you have not consulted a qualified Exercise Professional (QEP) about becoming more physically active.

ve pain or swelling in any part of your body (such as a flare-up of arthritis, or back pain) that affects your daily active?

☐ **YES**

consult a health care provider. Otherwise, keep joints healthy and reduce pain by moving through the entire pain-free range of motion. If you have hip, knee or ankle pain, choose swimming or cycling. As the pain subsides, gradually resume your normal physical activities before the flare-up. Consult a Qualified Exercise Professional (QEP) in follow-up to help you prevent or minimize future pain.

provider told you that you should avoid or modify certain activity?

☐ **YES**

health care provider. A Qualified Exercise Professional (QEP) will ask you about any specific advice for physical activity that is safe and that takes your lifestyle and health into account.

her medical or physical condition (cancer, osteoporosis, asthma, spinal cord injury) or ability to be physically active?

☐ **YES**

they have a medical or physical condition that physical activity might be unsafe. In fact, help to manage and improve many conditions. Physical activity can also reduce the risk. Exercise Professional (QEP) can help with specific advice for physical activity that is safe history and lifestyle into account.

**E for your YES response, go to Page 2 of the
3 – ASSESS YOUR CURRENT PHYSICAL ACTIVITY**

gender, or physical ability.

2. Recognise that your athletes can contribute by providing positive training methods and how best performance during training could be optimised. Be a good listener when occasions for support are needed.
 3. Do not disclose confidential information. Disclosure of such information only be made with the consent of those who requested confidentiality.
 4. Be sensitive to the feelings of your athletes when providing feedback on training progress and performance during competition. Criticism should not be directed at the athlete; instead, it should be on your own performance.
- ### Responsible Coaching
1. Be responsible and upskill your coaching expertise regularly in courses, conferences, workshops and resources.
 2. Prepare a well-planned and sound training programmes and manner that would benefit all your athletes.
 3. Recognise the limits of your knowledge and collaborate with practitioners. Where appropriate, refer your athletes to a more qualified specialist.
 4. Advise your injured athlete to seek further medical treatment and appropriate recovery plan whenever possible. When deciding on an athlete's ability to continue training or competing, do consider the athlete's general well-being.
 5. Ensure that training and competition venues meet with minimum safety standards and that your athletes are properly attired.
 6. Avoid sexual intimacy with your athlete. Any physical contact should be only necessary and during appropriate situations.

Integrity in actions

1. Be honest and sincere when communicating with your athletes and hopes to your athlete.
2. Inform a fellow coach as and when you are working with your athletes.
3. Your coaching qualifications and experience should be accurately reflected in your marketing materials.

**WANT ADDITIONAL INFORMATION ON
BECOMING MORE PHYSICALLY ACTIVE?**

ations

► csep.ca/guidelines

	Coach/Instructor	<ol style="list-style-type: none"> 1. Create and maintain a health and safety policy with risk assessments and emergency plans. 2. Plan the training programme that is appropriate for the ability and state of development of trainees. 3. Require all participants, schools and their parents or guardians, to sign an indemnity form. 4. Have a qualified SSCMF instructor certification, with a valid first aid and CPR/AED training certifications. 5. Have a first-aid kit fully stocked with an adequate supply of the correct medical equipment and supplies within sight. 6. Be prepared to summon professional medical help by having an emergency action plan. 7. Check the climbing area to make sure it is safe by removing hazards—for example, obstacles, obstructions, or equipment left by other gym users. 8. Ensure that there is sufficient space for climbers/belayers/spotters. 9. Be aware of any medical conditions or physical limitation of climbers. 10. Ability to adapt moves for those with injuries or disabilities. 11. Check equipment like harness, shoes, belay device and ropes are well put-up. 12. Ensure that the trainees are fit, physically, and mentally, for climbing. 13. Ensure that trainees maintain the highest standard of personal hygiene including keeping fingernails short and grooming hair neatly. 14. Forbid the use of objects such as eyeglasses, rings, necklaces, watches, bracelets, and earrings. 15. Ensure that changing room is clean and dry. 	
		<ol style="list-style-type: none"> 1. Conduct a proper warm-up before the start of the climbing activity. 2. Provide sufficient hydration breaks in between climbs. 3. Allow adequate rest in between climbs based on the physical capacity of the climbers. 4. Increase work intensity gradually. 	
		<ol style="list-style-type: none"> 1. Conduct proper cool-down. 	

Before climb activity	During climb activity	After climb activity	
<ol style="list-style-type: none"> 1. Climbers are adequately qualified. 2. Proper bookings including sign-in are made. 	<ol style="list-style-type: none"> 1. Ensure that climbers adhere to rules and regulations including all 	<ol style="list-style-type: none"> 1. Climbers check out. 2. All equipment cleared by climbers 3. Check all returned equipment for 	



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