

44 Actual via ferrata(s) (planned or recently done):
 45 Mindelheimer Klettersteig
 46 Sentiero Alfredo Benini
 47 Sentiero delle Bocchette Centrale
 48 Sentiero delle Bocchette Alte
 49 Via delle Bocchette SOSAT
 50 Sentiero Osvaldo Orsi
 51 Sentiero Livio Brentori / delle Ideale
 52 Sentiero Ettore Castiglione
 53 Sentiero Gustavo Vidi / Claudio Constanzi
 54
 55 Other(s):
 56

57 Please describe your injuries or the incidences, which occurred while doing a via ferrata. You have
 58 to distinguish between two kinds of health impairment: *urgent / emergency* or *overdue*.

59 Urgent events occur while or in direct connection with going a via ferrata and have to be treated in
 60 some way (e.g. wounds, torn ligaments, fractures etc.) or have a noticeable impairment (e.g.
 61 sunburn).

62 Overdue injuries are physical damages (especially incessant pain), which make one or more of the
 63 following necessary: treatment, hospitalisation, a break of climbing for at least one week, unfit for
 64 work, consultation of a physician or physiotherapist (e.g. problems of tendons, muscles or joints)
 65 and which are occurred without a direct force or impact (fall, rock fall).

66

67 Overdue injuries

68 Did you ever have an overdue injury caused by going a via ferrata? Yes No

69 If „Yes“, how many injuries like this did you have? _____

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71 Did you have more than one overdue injury? No Yes. In this case please
 72 contact us immediately!

Kind of overdue injury			
Possible cause			
Attended a physician?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Attended a	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Attended a naturopathic	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Unfit to work?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	How long?
Treatment necessary?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	How long?
Hospitalization?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	How long?
Break of climbing?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	How long?
Chronic symptoms?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Which one?
Remark(s)?			

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75 Did ever occur overdue injuries in any other sport? Yes No

76 If "Yes": Which one? / In which kind of sport / discipline?

77

78

79 Acute emergency

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81 Did you have more than one emergency? No

82 Yes. In this case please contact us
83 immediately!

Type of emergency?	<input type="checkbox"/> Fracture <input type="checkbox"/> Strain <input type="checkbox"/> Circulatory disturbance/collapse <input type="checkbox"/> Faintness/exhaustion <input type="checkbox"/> Frostbite <input type="checkbox"/> Sunburn <input type="checkbox"/> Lightning stroke	<input type="checkbox"/> Sprain <input type="checkbox"/> Contusion <input type="checkbox"/> Open wound <input type="checkbox"/> Hypothermia <input type="checkbox"/> Heat stroke <input type="checkbox"/> Metabolic dis. (e.g. diabetes)
other:		
Location of the injury? (if necessary mark several boxes with a cross)	<input type="checkbox"/> Head/brain <input type="checkbox"/> chest/thorax <input type="checkbox"/> Abdomen/lower abdomen <input type="checkbox"/> Forearm <input type="checkbox"/> Pelvis <input type="checkbox"/> Lower leg <input type="checkbox"/> Shoulder <input type="checkbox"/> Wrist joint <input type="checkbox"/> Knee	<input type="checkbox"/> Neck <input type="checkbox"/> Back/vertebral column <input type="checkbox"/> Upper arm <input type="checkbox"/> Hand <input type="checkbox"/> Upper leg <input type="checkbox"/> Foot <input type="checkbox"/> Elbow <input type="checkbox"/> Hip <input type="checkbox"/> Ankle joint
other:		
Cause? (if necessary mark several boxes with a cross)	<input type="checkbox"/> Slip off from metal steps etc. <input type="checkbox"/> Strumble <input type="checkbox"/> Hunger/ energy deficiency <input type="checkbox"/> Fatigue/ lack of concentration <input type="checkbox"/> Inadequate equipment <input type="checkbox"/> Climbing with illness	<input type="checkbox"/> Rock fall <input type="checkbox"/> Fall <input type="checkbox"/> Passing manoeuvre <input type="checkbox"/> Weather conditions <input type="checkbox"/> Lack of fitness <input type="checkbox"/> Long-term medication forgotten
other:		
Existing equipment? (if necessary mark several boxes with a cross)	<input type="checkbox"/> Helmet <input type="checkbox"/> Mobile phone <input type="checkbox"/> Sunglasses <input type="checkbox"/> First Aid kit <input type="checkbox"/> Bivouac sack	<input type="checkbox"/> Gloves <input type="checkbox"/> Provisions/beverage <input type="checkbox"/> Sunscreen <input type="checkbox"/> Clothes/weather protection <input type="checkbox"/> Emergency blanket
other:		
What contained the first-	<input type="checkbox"/> Pavement	<input type="checkbox"/> Dressing material

aid kit? (if necessary mark several boxes with a cross)	<input type="checkbox"/> Sterile compresses <input type="checkbox"/> SamSplint <input type="checkbox"/> Emergency blanket <input type="checkbox"/> Analgesic,Which one? other:	<input type="checkbox"/> Hygienic gloves <input type="checkbox"/> Triangular bandage <input type="checkbox"/> Disinfection agent
Emergency treated by? (if necessary mark several small with a cross)	<input type="checkbox"/> Myself <input type="checkbox"/> Emergency medical services	<input type="checkbox"/> Comrade/other climber <input type="checkbox"/> No treatment

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85 Please answer the following questions by marking the correct statements. Remark: more than one per question may be correct!

1)	In bad weather you meet an uninjured person wearing shorts and T-shirt. He isn't able to descent further. He isn't completely conscious.
a	The person is not suffering from severe (dangerous) hypothermia.
b	The person should be forced to descent as fast as possible.
c	Kneading and massage improves the situation.
d	If a bivouac can't be avoided, protection against moist is more important than against wind.
e	If possible the person should not be moved.
2)	You find an unconscious mountaineer who has neither pulse nor signs of respiration.
a	During resuscitation pulse control should be performed at the person's wrist.
b	The pressure point for cardiac resuscitation is localised at the left side of the breast above the heart.
c	The normal expiratory volume of the assistant is sufficient to breathe the unconscious person.
d	If the cardiopulmonary resuscitation is sufficient, the previously dilated pupils contract again.
e	Superextension of the head to clear the airways should be avoided since there is a risk of a fractured neck and superextension would lead to a damage of the spinal cord.
3)	A mountaineer was hit by a lightning.
a	Even if he should feel well, he should be monitored for several days (hospital).
b	Such an incident normally will not be survived.
c	Also without a fall the victim must be checked for fractures.
d	Attention: if one touches this person one can suffer from an electric shock.
e	Danger to life can be excluded if the person wasn't hit directly.
4)	While descending you meet a 50-years-old hiker. He is nervous, agitated, and reports about chest pain.
a	You tell him to descent slowly, because the problems will become better then.
b	He should lie on his back with heightened legs (shock position).
c	Probably he has a problem of the airways, e.g. a bronchitis.
d	He must be carried down. He should not exhaust himself any more.
e	If the pain doesn't radiate to the left arm it is probably not a cardiac disease.
5)	After a fall a mountaineer reports of back pain at his thorax.
a	There is a particular risk of hypothermia.
b	You should test whether there are deficiencies of the tactile sense or of the muscles of the legs.
c	Involuntary urination may be a sign for a severe back injury.

d	Until a final diagnosis was done (hospital) any movement should be avoided.	
e	Normally injuries of the back are easy to recognize because of the pain.	

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6)	A mountaineer breaks through a snow bridge and falls into the creek below. Because of technical problems the comrades need about $\frac{1}{4}$ hour to get him out. After rescue he is unconscious without respiration and his pulse is extremely slowly and irregular.	
a	Regarding the situation in the mountains there is no hope for a success of resuscitation performed by the comrades.	
b	At all events one must supply as much warmth as possible.	
c	Resuscitation must be started at once.	
d	In this concrete case resuscitation is promising even if rescue took some time.	
e	Awaking of the patient indicates the success of the resuscitation.	

7)	In the evening a mountaineer reports about severe stabbing frontal headache and eye's pain (at a hut in 3400m).	
a	Snow blindness is unlikely, because the whole day was misty.	
b	It should be exertion or altitude related headache.	
c	One should give him a tablet against headache and can expect that there will be no symptoms at the next morning.	
d	First Aid is laying down in a dark room and cooling eyes and forehead.	
e	Normally there will be a slow improvement of the symptoms within some days.	

8)	A mountaineer suffers from frostbite of his fingers.	
a	Early signs of a severe frostbite are blisters and red skin.	
b	Also after reaching a hut alcohol is strictly forbidden.	
c	Moderate frostbite should be treated by massage or rubbing with snow.	
d	Analgesics should not be used.	
e	A frostbite should be waded and bandaged loosely.	

9)	In the evening a mountaineer suffers from lack of appetite, slight nausea, and headache at the Mantova Hut (3400m).	
a	Probably he suffers from influenza.	
b	If the symptoms don't become worse continuing to Margherita Hut (4560m) should be possible without problems.	
c	He should stay at least one day at the Mantova Hut (rest day).	
d	The sickness can be avoided by ascending to high altitudes during several days.	
e	If the symptoms should become worse, he must descent.	

10)	At the Margherita Hut 4560m) a mountaineer reports about air hunger. His breath rattles, sometimes he coughs.	
a	Although he seems to be absolutely inconspicuously and he is conscious, there is acute danger for life.	
b	In most cases such a situation will improve spontaneously until the next day.	
c	After transportation to sea level (or in the next valley) the symptoms will be much better.	
d	Although the person is conscious, he should get oxygen immediately (at Margherita Hut available!).	
e	The person should be placed with a heightened chest.	

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11)	A victim has lost much blood.	
a	One should expect the following additional symptoms: paleness, raised pulse rate.	
b	One should expect the following additional symptoms: normal pulse, but dry and warm skin.	

c	The victim should be placed in horizontal position and with heightened legs (shock position).	
d	The victim should drink as much as he can to compensate the loss of blood.	
e	Cold-moist skin would contradict a shock.	

12)	After a fall a mountaineer reports about severe pain in his thigh. He is unable to move the leg as well as to load it.	
a	A shock is possible although no external (visible) injury is obvious.	
b	By fixation and a slight pull at the foot a reduction of pain can be obtained.	
c	Deviations from the leg's axis should never be corrected on scene.	
d	It should be a severe contusion.	
e	The injured leg should be placed heightened.	

13)	Strategy in cases of emergencies	
a	Each injury registered during checking the patient must be treated at once.	
b	If one expects a victim could die during a bivouac, the only chance is to force a transport to the next hut performed by the comrades.	
c	The safety of the rescuer is without any exception more important than the immediate medical attendance of the victim.	
d	An objective danger may demand an immediate transport of the victim without treatment.	
e	A retreat with a victim in easy terrain often strengthens more than in steep terrain.	

14)	A hiker fell down and is unconscious.	
a	Victims with head injuries should be placed flat.	
b	A fall on a smooth surface (e.g. a moss patch) would exclude dangerous head injuries.	
c	A cerebral trauma could be recognised by wounds of the head.	
d	It has to be considered that injuries of the head are often associated with injuries of the cervical vertebra.	
e	Dilated pupils indicate that there is no damage of the brain.	

15)	After a several-hours walk shortly above tree limit at summer-like conditions a hiker collapses with the sign of a deep red head.	
a	If he has a dry and hot skin, he probably suffers from a heat-stroke.	
b	The fastest improvement could be obtained by cooling the person with water as cold as possible.	
c	A cardiac disease can be excluded.	
d	This disease could be avoided by wearing a headgear.	
e	After a long rest and complete recovery a slow descent without any luggage is usually possible.	
16)	After a fall the victim complains of severe pain in the right breast and difficulties to breathe.	
a	The hurt person should be laid on his injured right side.	
b	Probably there is a fracture of several ribs.	
c	Since only one side of the breast is injured, one shouldn't expect a danger of life.	
d	If air exits out of the wound, it has to be closed by a tight bandage.	
e	To avoid secondary injuries, the person should be laid on his uninjured left side.	

17)	Analgesia in the wilderness	
a	In case of severe abdominal pain relaxing the abdominal wall and heighten the legs would help.	
b	Aspirine and similar analgesics do not have adverse effects.	
c	In emergencies the use of strong analgesics persons with less medical experience could be recommended.	
d	Severe pain could be induced by warming up a frostbite.	

e	Circulation and respiration could be impaired by pain.	
18)	Check these statements for correctness!	
a	In high altitude severe headache could be caused by a sunstroke as well as by a high-altitude cerebral edema.	
b	In high altitude (snow/ice) a heat stroke is not expected.	
c	An alpinist with a high-altitude cerebral edema attracts attention e. g. with an incertitude of gait or unexpected reactions and acts.	
d	Nightly sharp headache is normally a sign for a high-altitude sickness and never for snow blindness (darkness).	
e	The measure to ameliorate a high-altitude cerebral edema are oxygen therapy, transport in lower level and – if available – administration of cortisone.	

93 Please assess your knowledge on first aid in mountaineering emergencies of the following
94 subjects. (Please mark only one category in each row)

	Very good	Well	Average	Fragmentary	Little/no
Hypothermia	<input type="checkbox"/>				
Shock	<input type="checkbox"/>				
Mountain sickness	<input type="checkbox"/>				
Cardiopulmonary resuscitation	<input type="checkbox"/>				
Frostbite	<input type="checkbox"/>				
Acclimatisation	<input type="checkbox"/>				
Emergencies of the heart	<input type="checkbox"/>				
Head injuries	<input type="checkbox"/>				
Fractures	<input type="checkbox"/>				
Rescue strategies	<input type="checkbox"/>				
Checkup of injured person	<input type="checkbox"/>				
High-altitude pulmonary	<input type="checkbox"/>				
Illness on the way	<input type="checkbox"/>				
Heat stroke	<input type="checkbox"/>				
Snow blindness	<input type="checkbox"/>				

95 Remarks/Suggestions for future education:

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99 If you want to know the result of the study, please write down your email address:

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102 Thank you very much for your cooperation!

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