



## ROYAL CANADIAN ARMY CADETS

### GREEN STAR

### INSTRUCTIONAL GUIDE



## SECTION 2

### EO M123.02 – PARTICIPATE IN A DAY HIKE

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Total Time:

9 x 30 min

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### PREPARATION

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#### PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-701/PG-001, *Green Star Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

#### PRE-LESSON ASSIGNMENT

Cadets are required to plan their individual snacks as detailed by the instructor prior to the hike.

#### APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new knowledge and skills through a direct experience. The cadets experience hiking and define that experience on a personal level. The cadets will be given the opportunity to reflect on and examine what they saw, felt and thought while hiking and consider how it relates to what they already learned and experienced as well as how it will relate to future experiences.

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### INTRODUCTION

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#### REVIEW

The pertinent review for this lesson will include EO M123.01 (Section 1), Select Hiking Clothing and Equipment.

#### QUESTIONS

- Q1. What is the most important factor to consider when selecting footwear?
- Q2. What are the four types of water storage vessels?
- Q3. Why are sunglasses important?

#### ANTICIPATED ANSWERS

- A1. The footwear's fit.
- A2. Canteen, rectangular, bottle bag and water bladder pack.
- A3. Protects your eyes against damage from the sun's light.

## **OBJECTIVES**

By the end of this lesson, the cadet shall be expected to participate in a day hike, where they will determine personal food requirements and follow a leader during a day hike.

## **IMPORTANCE**

The day hike allows the cadet to participate in physical fitness while challenging themselves and having fun. It introduces the Green Star Cadet to the necessary skills required for progressing through the hiking aspect of the Army Cadet Program.

**Teaching Point 1**

**Describe trail etiquette methods that accomplish the “leave no trace” ideologies while hiking.**

Time: 10 min

Method: Group Discussion



This teaching point is to be presented as a group discussion during a break in the hike. All material and information is provided for the purpose of educating the instructors. The instructor will be required to review the information and in a group environment, discuss the points presented and ensure comprehension of material.

Trekkers have always known, that proper planning before entering an outdoor environment serves as one of the key elements in having a safe and successful trip. No trace camping also involves avoiding or reducing the damage caused by humans frequenting the environment. Preparing for an environmentally sound outdoor experience includes following the “leave no trace” guidelines that are listed in the following paragraphs.

**Repackaging Food Before Leaving** on a hike will greatly reduce weight and the likelihood of litter, broken glass, and surprise openings and spillage in your pack. Repackaging food requires the removal of food from cardboard boxes and placing it in reusable zipper bags, and emptying contents from glass containers and placing them into reusable plastic containers.

If you have something that has special instructions for its preparation, clip it out and put it in the plastic bag. Be sure the plastic bags are of at least two-ply strength. For liquids like soy sauce, cooking oil and vinegar, plastic Lexan or polycarbon bottles with screw tops work well.

**Staying on Established Trails** helps limit the amount of overall erosion caused by constant trampling and travel over environmental surfaces. Avoid taking shortcuts and, when travelling cross-country where no trails exist, try and remain on the most durable surfaces.

**Walking on Durable Surfaces** will help maintain the natural beauty of the area. Surfaces vary from soft marshes to solid rock, and trekkers will continuously cross many different types of terrain. It is imperative to take the time to travel on surfaces that will not be significantly affected, rather than taking the straightest line to get to a destination, trampling whatever lies in the way.

**Travel in Small Groups** as increased group numbers can have a greater impact than smaller ones. Stick to appropriate group sizes of 10 or less. Understand that every action has the potential to impact the natural environment. Take the necessary precautions to protect the environment when travelling in a group.

**Avoid Making Loud Noise** and allow nature’s sounds to prevail when travelling through the wilderness. Avoid using loud voices and making loud noises, secure all pots and pans on the backpack and only use the whistle in emergency situations.

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**CONFIRMATION OF TEACHING POINT 1**

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**QUESTIONS**

- Q1. Why should a trekker repack food before going on a hike?
- Q2. What surfaces should one walk on while travelling in the field?
- Q3. Why should trekkers stay on established trails?

## ANTICIPATED ANSWERS

- A1. To greatly reduce weight and the likelihood of litter, broken glass, and “surprise openings and spillage” in ones pack.
- A2. Durable surfaces.
- A3. Remaining on established trails helps limit the amount of overall erosion caused by constant trampling and travel over environmental surfaces.

### Teaching Point 2

**Describe preventative action that should be taken for physical conditions that may develop when hiking.**

Time: 10 min

Method: Interactive Lecture

## BLISTERS



This teaching point is to be presented as a group discussion during breaks in the hike. The following material and information is provided for the purpose of educating the instructors. The instructor will be required to review the information and, in a group environment, discuss the points presented and ensure comprehension of material.

A blister is a small bubble on the skin filled with fluid caused by friction (see Figures 1 and 2). It is basically the body's way of saying the boots don't fit, they are not broken in, or the feet are still too tender for the miles being covered.



[www.bannoy.com/images/blog/heel\\_blister.jpg](http://www.bannoy.com/images/blog/heel_blister.jpg)

Figure 1 Heel Blister



[www.windspirit.co.za/images/blisters/.jpg](http://www.windspirit.co.za/images/blisters/.jpg)

Figure 2 Heel Arch Blister

**Preventing Blisters.** To prevent blisters a hiker must ensure:

- proper boot fit;
- multiple sock layers (multiple layers wick moisture and minimize direct rubbing on the skin);
- foot powder is applied prior to and during hiking; and
- to address hot spots as they arise.



It is especially important to stop and take care of feet early in the trip when feet become tender. By taking boots and socks off at rest breaks, the hiker will have an opportunity to cool feet, apply foot powder and look for red areas which may indicate oncoming hotspots.

**Treating Blisters.** If a blister develops there are two solutions to help relieve the pressure:

1. Cut a piece of moleskin that generously covers the blister. Cut a smaller hole in the moleskin, making a little donut shape. The donut should fit around the blister, the idea being that the moleskin relieves the pressure from the injury. Fill the moleskin donut with an antibiotic cream and cover the whole donut with athletic tape.
2. Use 2nd skin directly over the blister, followed by a layer of moleskin to keep the second skin in place. Second skin is a padding that has high water content and has a slimy feel, giving it a lubricating quality.



If a blister develops into a full bubble it may be necessary to lance the blister. Determining whether to lance a blister is complicated; a drained blister increases the chance of infection. The rule of thumb to follow is if a blister is smaller than a nickel do not drain it and follow the steps above; however, if it is bigger than a nickel it will have to be drained as it will most likely pop anyways. Once drained ensure to apply an antibiotic cream/ointment to the area to ward off infection and then follow the steps above.

## HOT SPOTS

Hot spots are the precursor to blisters. The slight reddening of the skin and early hints of pain are telling signs of an impending blister (a hot spot). This reddening is the result of friction, between the skin and the sock or boot/liner. To avoid blisters, stop and address hot spot(s). The best action is to tape the spot with moleskin or athletic tape. Use a tincture of benzoin, if available, and place the tape carefully over the area.

**Prevention.** Same as blisters, as hot spots will lead to a blister.

## PLANTAR FASCIITIS

Plantar fasciitis (fashee-EYE-tiss) is an overuse injury affecting the sole or flexor surface (plantar) of the foot. A diagnosis of plantar fasciitis means one has inflamed the tough, fibrous band of tissue connecting the heel bone to the base of the toes. This condition occurs in people who excessively run or walk, stand on hard surfaces for prolonged times, or people with very flat feet or very high arches. This condition starts gradually with mild pain at the heel bone. One is more likely to feel it after exercise.



[www.posetech.com/training/images/plantar-fasciitis-smi.gif](http://www.posetech.com/training/images/plantar-fasciitis-smi.gif)

Figure 3 Plantar Fasciitis-A



[www.patient.co.uk/showdoc/pilsinl/017.jpg](http://www.patient.co.uk/showdoc/pilsinl/017.jpg)

Figure 4 Plantar Fasciitis-B



[www.patient.co.uk/showdoc/pilsinl/017.jpg](http://www.patient.co.uk/showdoc/pilsinl/017.jpg)

Figure 5 Flat Foot/High Arch Foot

**Prevention.** There are several things you can do to prevent plantar fasciitis including:

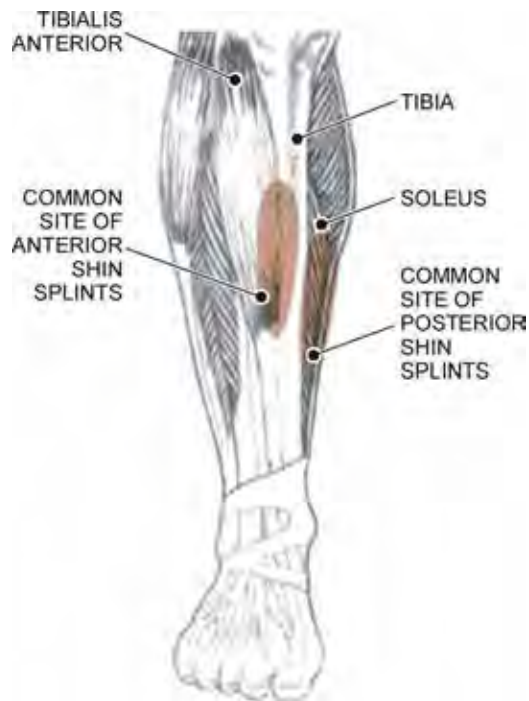
- wear proper footwear for the activity;
- stretch (tight and cold muscles are prone to injury); and
- condition the body in a progressive manner when preparing for activities that will see the trekker covering great distances on foot.

**Treatment.** Rest and keep weight off the foot until inflammation goes away, and apply ice to the area for 20 min three or four times daily. Stretching your Achilles tendon and plantar fascia are the mainstay of treating the condition.

## SHIN SPLINTS

Excess training with inadequate recovery causes shin splints; over running is most often the culprit. Shin splint occurs when the foot strikes the ground, followed by a loading/energy transfer phase, and finally a push off with the forefoot. Each foot strike delivers a shockwave that travels up the leg. This energy is absorbed by the musculoskeletal system. The harder the running surface the greater the shockwave (i.e., soft grass, smooth dirt, asphalt, and concrete represent increasing hardness, concrete being the hardest).

**Symptoms.** In the early stages of shin splints a runner will describe a pain that is present when the training run first begins, then disappears as running continues. The pain will often return after exercise or the following morning. Eventually, if ignored and training continues, the pain may become quite sharp and may focus on a very small area of the bone. If this happens a stress fracture may be present.



[www.athleticadvisor.com/images/LE\\_images/shin-splints.gif](http://www.athleticadvisor.com/images/LE_images/shin-splints.gif)

Figure 6 Shin Splints

**Prevention.** There are several things you can do to prevent shin splints:

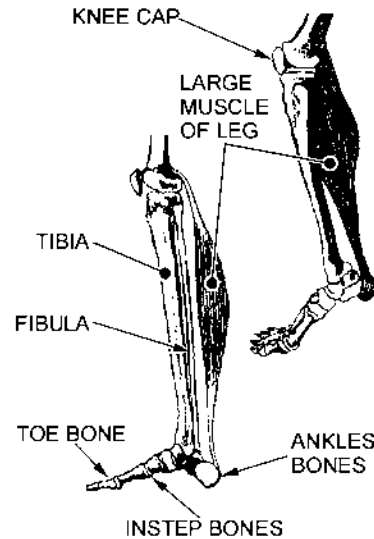
- overstriding when hiking occurs when a person throws the leg out too far in front, unnaturally lengthening the stride. To correct, slow down and try to push off with back foot rather than extending the front leg. The lead leg should strike closer to the body, roll through the step, and push off with the toe. Note the extension should be in the back, not in the front;
- avoid wearing footwear with a high heel;
- wear proper footwear for activity – over-pronation rolls the foot inward on each step. Get fitted with motion control running shoes;
- stretch (tight and cold muscles are prone to injury); and
- condition the body by beginning with activities that cover distance in a progressive manner. If hiking, beginning training with short distance hikes progressing to longer distances over time.

**Treatment.** Rest, and depending on the severity, it is often necessary to completely stop running for a period of time. When running is resumed, a significant change in routine must be adhered to or else the injury will return. Lengthen the time between training and decrease the volume and intensity of training.

## MUSCLE CRAMPS

A cramp is a muscle spasm that occurs when the blood circulation is impaired or if the muscle is over exerted. It usually occurs in the leg and may develop when swimming in cold water. It can happen when a person is immobile in a “cramped” position. This commonly occurs while sleeping.

**Heat Cramps** are caused by the loss of salt when there is excessive sweating. The lack of salt causes cramps that are spasmodic, painful contractions of muscles, usually in the leg.



*Camping & Wilderness Survival, The Ultimate Outdoors Book, p.311*

Figure 7 Muscle Cramps

**Prevention.** To reduce the probability of these cramps:

- eat well-balanced meals rich in potassium and sodium (i.e., eggs, liver, chicken, milk, citrus fruits, bananas and dark green leafy vegetables); and
- stay well hydrated.

**Treatment.** A victim of an attack should rest in a cool area and drink a saline solution or lemonade. Avoid cramps by warming up before strenuous activity. During an attack stretch out the muscle while massaging above the painful area to increase the flow of blood.

## SPRAINS

A sprain is the ligament of a joint that is torn by a sudden twist or wrench. The joint is very painful when moved, and there can be considerable swelling. A deep bruise may gradually appear. A bad sprain is hard to distinguish from a fracture. To treat a sprain, wrap the sprained joint in a heavy bandage. Rest the limb in a comfortable elevated position.

**Prevention.** To reduce the probability of sprains:

- stretch before and after exercising. Tight muscles pull on the Achilles tendon and can reduce the range of motion of the foot;
- select footwear with good ankle support – wear snugly laced, high-topped shoes; and
- select footing carefully while on uneven surfaces.

**Treatment.** **RICE** (Rest, Ice, Compression, and Elevation) is key to rapid healing.



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## CONFIRMATION OF TEACHING POINT 2

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### QUESTIONS

- Q1. What is a blister?
- Q2. How should shin splints be treated?
- Q3. What causes muscle cramps?

### ANTICIPATED ANSWERS

- A1. A blister is a small bubble on the skin, filled with fluid and caused by friction.
- A2. Rest, and depending on the severity, it is often necessary to completely stop running for a period of time. When running is resumed, a significant change in routine must be adhered to or else the injury will return. Lengthen the time between training and decrease the volume and intensity of training.
- A3. A cramp is a muscle spasm which occurs when the blood circulation is impaired or if the muscle is over exerted.

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### Teaching Point 3

**Explain and demonstrate how to develop a personal hiking rhythm that will increase performance and endurance.**

Time: 10 min

Method: Demonstration and Performance

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The instructor will, during a hike, choose appropriate times to show the cadets how to develop a personal rhythm when hiking, keeping in mind the whole purpose of the teaching point is for the cadets to learn how to develop and maintain a personal rhythm.

Sample method: The instructor may want to briefly discuss keeping a hiking rhythm that is conducive to the group prior to the hike. For the first hour, hike a little slower than normal, allowing cadets to get used to the trail with a slower pace. During the first break, discuss determining rhythm. During the second leg, intentionally increase the pace to the point of tiring the cadets. During the second rest, discuss the differences in both legs and determine a pace that will maintain a good rhythm for the duration of the hike, employing the guidelines of establishing a rhythm.

An average day of hiking will consist of periods of hiking and periods of rest. The combination of good hiking rhythm, good walking speed, and fixed rest intervals are things that separate hiking beginners from good hikers. Enthusiasm often tends to cause one to start too fast, get tired quickly, take an early rest, and start off too fast again.

### DETERMINING STRIDE RHYTHM AND SPEED

A steady hiking rhythm is generally more enjoyable as one over exerts themselves less and generally keeps the physical strain at enjoyable levels. Having a steady rhythm will enable a hiker to stick to a fixed schedule and lessen the strain put on the feet, legs, lungs and overall body. This allows a hiker to travel while being less fatigued.

**Developing a Hiking Rhythm.** A hiking rhythm is very personal and is developed over the course of many hikes. To develop a rhythm there are some guidelines to follow:

- choose a specific stride rhythm and speed and keep to it. A good rhythm is one that allows a hiker to hike at the same intensity level for at least one hour without having to take a break;
- adjust rhythm to terrain, weather and weight. The point where a person can no longer carry on a conversation indicates the hiker has gone beyond a comfortable tempo;
- make the rhythm a full body movement where breathing and the swing of the arms happen in harmony with the body; and
- uneven surfaces like uphill and downhill slopes of varying incline can make it difficult to maintain a steady hiking rhythm.

## CONTROLLING FATIGUE

The purpose of resting is to slow down the heart rate and breathing, thereby allowing the heart and lungs to rest. Resting gives the body time to get rid of the lactic acids built up in muscles, and to recover from hot spots or sores.

Resting guidelines:

- rest in regular intervals; try 10 minutes for every hour hiked (make them part of the rhythm);
- stick to 10 minutes rest breaks. Use only lunch and dinner (supper) breaks as extended rest periods;
- 10 minutes is the most effective rest duration for body recovery;
- ensure to take off backpacks, rest in the shade, and sit down during rests; and
- during the extended rest breaks, allow feet to rest and dry by removing shoes, and airing out footwear.

## ADJUSTING RHYTHM

Generally, hiking rhythm on a flat surface can be maintained easily; however, when weather and additional weight are included, hiking becomes more difficult. How fast travel is depends on the fitness level of the entire group, the terrain, the altitude and pack weight. One of the best ways to measure and regulate pace is to pay close attention to the tempo of breathing.

If breathing determines pace then, for example, on level ground one takes three steps per inhalation, and three steps per exhalation. Climbing a hill, while maintaining the same breathing rate, the steps per inhalation fall to two steps. A good rule of thumb to follow is to walk at a pace where one can still carry on a conversation.

When travelling in different conditions ones pace will change, according to:

- **Weather.** Poor weather will reduce pace and force the hiker to reduce step size for safety.
- **Weight.** Weight will affect pace size as the more weight one carries the more energy must be expelled.
- **Terrain.** Travelling up hill will reduce pace size and distance traveled.

## EMPLOYING FULL BODY SYNCHRONIZATION

Hiking rhythm is a full body affair. Just like marching, hiking requires coordinated movements where every action has a reaction. The swing of arms provides momentum, breathing controls pace etc. To properly control rhythm, one must first learn what body parts work in unison with each other.

To employ full body synchronization during movement, the arms should be in motion at a natural swing opposite to the forward foot. The swing of the arms provides momentum to help carry the body forward for the next step. Breathing will control pace (keeping in mind a good rhythm is when a person can carry on a conversation while hiking).

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### CONFIRMATION OF TEACHING POINT 3

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This teaching point will be confirmed throughout the duration of the hike. The instructor will constantly be supervising and providing advice to cadets who experience difficulty.

#### Teaching Point 4

**Discuss the purpose of resting intervals during heavy hiking periods.**

Time: 10 min

Method: Interactive Lecture

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This teaching point is to be presented as a group discussion during breaks in the hike. The following material and information is provided solely for the purpose of educating instructors. The instructor will be required to review the information, and in a group environment, discuss the points presented and ensure comprehension of material.

### RESTING INTERVALS

An average day of hiking consists of periods of hiking and of resting. Resting intervals should occur once every hour, for a duration of 10 minutes, in an area that is conveniently shaded and possibly near a water source. During the first 5 to 7 minutes of resting, the body flushes out about 30 percent of the lactic acid build-up in the muscles, but only five percent in the next 15 minutes (be cautious rest does not extend beyond 10 minutes).

Rests also provide the body with much needed breaks. In addition to lactic acid build-up in the muscles, the body works in unison and other areas may become fatigued. By resting:

- the heart rate slows and beats at a reduced rate;
- the lungs supply less oxygen to the body;
- the body and mind rest; and
- feet and footwear can be aired out, reducing the chance of blisters.

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### CONFIRMATION OF TEACHING POINT 4

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#### QUESTIONS

- Q1. How long should rest intervals be?
- Q2. How much lactic acid is flushed from the muscles during the first five to seven min of a break/rest?
- Q3. What other parts of the body are provided with a rest during a break?

#### ANTICIPATED ANSWERS

- A1. 10 min.
- A2. 30 percent.
- A3. The heart, lungs, feet and mind.

**Teaching Point 5****Explain the selection of food rations that can be consumed during a day hike.**

Time: 10 min

Method: Interactive Lecture



This teaching point is to be presented as a group discussion during breaks in the hike. The following material and information provided is for the purpose of educating instructors. The instructor will be required to review the information and, in a group environment, discuss the points presented and ensure comprehension of material.

**TYPES OF RATIONS**

**Staple Foods.** This type of meal is made up of food such as pastas, flour, dried beans, rice, sugar, potatoes etc. This type of food in comparison to others is:

- cheaper than freeze-dried meals;
- easier to find as it is available at any grocer; and
- more flexible as it allows one to pick and choose ingredients when preparing a meal.

**Freeze Dried.** This is a preserved food that has gone through a process that freezes and dries the food before it is packaged. To prepare such a food, just add hot water. This form of meal in comparison to others is:

- expensive;
- light in weight;
- non-perishable; and
- convenient to prepare.

**Trail Food.** This is a quick snacking food which is easy to eat while on the trail. Providing a quick fix for hunger prior to a main mealtime, trail food consists of nuts and seeds, dried fruits, energy bars and fruit bars, breadstuffs, trail mixes, etc. This form of meal, in comparison to others, is:

- easily accessible;
- small and snackable; and
- requires no preparation.

**EATING FREQUENCY**

The average person in the field eats between 1.5 and 2.5 lb of food each day, or between 2500 and 4500 calories. Planning the amount of food to bring can be a daunting task; if one packs too much it will have to be carried, if one brings too little one may be forced to find alternate food sources.

How much food is required depends on how strenuous of a trip is planned. A person will eat less while hiking on light days in the summer than when skiing in the winter. One would also eat more on a climbing trip than on a fishing trip. To determine the amount of food reference the table provided below.

<b>Ration Table</b>	<b>Average Wilderness Activities (Backpacking or Kayaking)</b>	<b>Strenuous Wilderness Activities (Snow Camping)</b>	<b>Very Strenuous Activities (Extreme Mountaineering)</b>
<b>Pounds per Person per Day</b>	1.5 to 2 lb	2 to 2.25 lb	2.25 to 2.5 lb
<b>Calories per Person per Day</b>	2500 to 3000 calories	3000 to 3700 calories	3700 to 4500 calories

Keeping in mind the weight in food should be split between trail foods and stable foods. Plan meals individually, and carefully, to determine what will be required on the trip.

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### CONFIRMATION OF TEACHING POINT 5

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#### QUESTIONS

- Q1. How many calories can a person burn a day when participating in strenuous wilderness activities?
- Q2. How many pounds of food does one consume per day of backpacking?
- Q3. How should you plan your meals for the trip?

#### ANTICIPATED ANSWERS

- A1. 2500 to 3000.
- A2. 1.5 to 2 lb.
- A3. Individually.

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#### Teaching Point 6

**Explain potable water requirements for consumption during a day hike.**

Time: 15 min

Method: Interactive Lecture

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#### DAILY WATER REQUIREMENTS



The instructor shall ask the following lead in question: What are some ways we lose water from our bodies?

The instructor should draw the following information from the group. The instructor should then present anything not provided by the group.

The human body constantly loses water from sweating, urinating, breathing and defecating. When the body is working hard and sweating heavily, we can lose up to a litre of water per hour. At high altitudes where the air is dry, a person can dehydrate by merely breathing at rest.

**Performance Related Water Loss.** Dehydration impairs humans both physically and mentally. As a person becomes dehydrated, the blood plasma level lowers (blood becomes thicker) and consequently, the heart has to work harder to pump blood. As the body becomes increasingly dehydrated, complications occur, such as:

- a decrease in cardiovascular performance (person finds it harder to catch their breath);
- the body is less able to dissipate heat through sweat;
- the ability to digest and metabolize food is impaired; and
- physical performance declines.

Pre-hydration is the key to staying hydrated. When a person becomes thirsty the body is already showing signs of dehydration. Drinking extra water before strenuous activities will also help performance. The best fluid to maintain hydration is water.

**Note:** Caffeine and carbonated drinks accelerate dehydration.

**Daily Water Intake by Weight.** To stay hydrated, daily intake levels have been produced based on body weight. Reference the chart below.

#### RECOMMENDED DAILY WATER INTAKE ACCORDING TO WEIGHT

Body Weight (lb)	Litres of Water at Rest
100	3
120	3.6
140	4.2
160	4.8
180	5.4
200	6

#### MAINTAINING SAFE HYDRATION LEVELS

Motorized cars require oil to lubricate a combustion engine. Just like a car, the human body requires lubricant in the form of **WATER** to run its engine. To keep this engine running effectively a person must maintain a safe hydration level by:

- **Pre-hydrating.** Drinking extra water before you start activity.
- **Drinking Small Amounts Often.** Small amounts will effectively feed the engine constantly.
- **Drinking Cool Water.** The intestines absorb cool water more easily.
- **Avoiding Sugary Drinks.** Sugar impedes the body's ability to absorb fluid.
- **Making Drinking Water a Habit.** A good habit is never forgotten.
- **Drinking at Least 8 oz of Water.** For every half hour of strenuous activity.

## LOCATING WATER SOURCES FROM WHICH WATER CAN BE DRAWN AND PURIFIED



The instructor shall ask the following lead in question: What are some sources of water found in nature?

The instructor should draw the following information from the group. The instructor should then present anything not provided by the group.

Water is essential to life. All life depends upon it and all living things contain it. The average person can survive for three weeks without food, but only three days without water. It is the number one priority. When in the field, one must know where to locate water in the case of emergency.

The first place to look is:

- **Rivers.** A common source of water, one should draw the water from flowing water away from the banks.
- **Streams.** A common source of water, one should draw the water from flowing water away from the banks.
- **Lakes/Ponds.** A common source of water, one should draw from deeper areas of the source.
- **Valley Bottoms.** Water naturally drains into these areas from surrounding heights.
- **Patches of Green Vegetation.** These indicate a water source. One can dig below the surface to locate water if it is not visible on the surface.
- **Dry Streams or Riverbeds.** Even though a stream might be dry on the surface water may still be flowing below the surface in a spring. Dig down to locate water.



When collecting water from the natural environment for consumption, it is important to ensure the water is safe to drink. Be sure to boil or filter water through a water purifier, or use water purification tablets.

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### CONFIRMATION OF TEACHING POINT 6

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#### QUESTIONS

- Q1. If a person weighed 140 lb, how much water would be required to maintain daily hydration levels at rest?
- Q2. How does the human body lose water?
- Q3. During a hike you drop your water bottle. You are becoming thirsty and see no lakes or streams in sight. Where may you locate water?

#### ANTICIPATED ANSWERS

- A1. 4.2 litres.
- A2. The human body constantly loses water from sweating, urinating, breathing, and defecating.
- A3. Valley bottoms, patches of green vegetation, dry streams or riverbeds under the surface.

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## END OF LESSON CONFIRMATION

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### QUESTIONS

- Q1. Why should a trekker repack food before going on a hike?
- Q2. What surfaces should one walk on while travelling in the field?
- Q3. How many calories can a person burn a day when backpacking through the wilderness?
- Q4. How many pounds of food does one eat per day in the field?
- Q5. How should shin splints be treated?

### ANTICIPATED ANSWERS

- A1. To greatly reduce weight and the likelihood of litter, broken glass, and “surprise openings and spillage” in ones pack.
- A2. Durable surfaces.
- A3. 2500 to 3000.
- A4. 1.5 to 2 lb.
- A5. Rest and depending on the severity, it is often necessary to completely stop running for a period of time. When running is resumed a significant change in routine must be adhered to or else the injury will return. Lengthen the time between training and decrease the volume and intensity of training.

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## CONCLUSION

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### HOMEWORK/READING/PRACTICE

Cadets will be required to develop, and practice a personal hiking rhythm on subsequent hikes.

### METHOD OF EVALUATION

Nil.

### CLOSING STATEMENT

This activity has provided the cadets with an opportunity to participate in physical fitness, while challenging them to develop the necessary skills required to progress through the Army Cadet Hiking Program.

### INSTRUCTOR NOTES/REMARKS

To deliver this lesson, the instructor shall take advantage of teachable moments and rest stops, to allow cadets to relate to the material being taught.

It is necessary that cadets' characteristics be taken into consideration when selecting the hiking route.

EO M123.01 (Select Hiking Clothing and Equipment) shall be completed prior to this lesson.

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## REFERENCES

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