



THE SSE ELUCIDATOR

“Elucidate: to give clarity through explanation and analysis.”

SPRING SPORTS SAFETY



As the snow melts away and the thermometer starts to rise, people begin to crave activities that will draw them outdoors. This provides a great opportunity to become involved in a sport that will provide not only enjoyment but help you to shed those extra pounds you might have gained over the long winter months. However, before hitting the tennis courts or signing up for your community’s intramural softball league, there are some precautions you can take so you don’t get off on the wrong foot. Injuries during routine workouts or organized team sports are frequent no matter what the game. The good news is that almost half of all sports related injuries are preventable.

Warm Up – A proper warm-up prepares the body for training and competition by increasing body temperature, respiration (oxygen availability), and heart rate while reducing the risk of muscle tendon and ligament strains. Warm up before you work out by walking briskly for five minutes, then doing some easy stretching. Never stretch cold muscles—warm up first. Stretch again after the activity.

Drink Lots of Water – Dehydrated athletes do not perform well. Fluid loss through sweating directly impacts strength, endurance, power, and cognitive abilities. Drink plenty of water before, during and after working out or playing the game.

INSIDE THIS ISSUE

Spring Sports Safety	1
Camping and Hiking Safety	4
Motorcycle Safety	6
Courses and Seminars	7

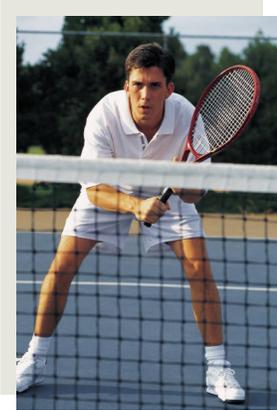
Feel the Burn, Not the Pain – Pain can indicate a muscle, bone, or joint injury that can be made worse by continuing to participate in a sports activity without seeking medical attention or resting the affected area. Pain can also indicate overuse injuries such as bursitis, shin splints, stress fractures, and tendonitis. If you are experiencing pain, tell your coach, stop playing and consult with a doctor.

Cool Down – Ending a training session with a cool down period reduces the risk of muscle cramps, soreness, stiffness, fainting and dizziness. Cooling down helps the body make the transition from vigorous activity to a normal state of activity.



SPRING SPORTS

SAFETY (continued)



Watch for Signs of Heat Stroke – Heat stroke is life-threatening. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. Symptoms include hot, red and dry skin; changes in consciousness, rapid, weak pulse, and rapid, shallow breathing. Call 9-1-1 and move the person to a cooler place. Keep the person lying down. Quickly cool the body by wrapping wet sheets around

“Watch out for the too’s...too tired, too thirsty, too much sun, too much strenuous activity.”

the body and fan it. If you have ice packs or cold packs, place them on each of the victim's wrists and ankles, in armpits and on the neck to cool the large blood vessels. Watch for signals of breathing problems and make sure the airway is clear.

Pre-Season Medical Check Up – An appropriate medical examination helps to assess overall health, reveal past and present injuries that could be aggravated by participating in the sport, and identify conditions predisposed to injury. Often, treatments can be prescribed to heal injuries or

alleviate the condition prior to beginning training.

The five most common sport related injuries are ankle sprains and strains, knee pain, lower back pain, elbow pain, and shoulder injuries. The best way to prevent these types of injuries is to practice proper technique, proper conditioning, and proper strength and flexibility training. Appropriate footwear is essential in preventing ankle and knee injuries. If you have a history of ankle or knee injuries, braces or orthotics can provide extra stability and improve alignment, helping to reduce the risk of re-injury. As we get older and less active, we lose strength and balance in the core muscles (abs and low back) leading to poor posture, improper alignment, fatigue and pain. Regular exercise is the best way to prevent lower back pain. Elbow and shoulder pain are both often seen in sports with repetitive movements. Both can be prevented with proper technique and proper conditioning.

Even when taking the proper precautions, you may still develop pain from exercise. If so, what you do immediately can prevent the pain from becoming a chronic problem. At the first sign of pain stop or ease back on your sport immediately. Apply ice for 15 to 20 minutes several times a day and elevate the injured area. If you still have pain after two or three days, you should see your physician.



SPRING SPORTS

SAFETY (continued)

To help prevent injury try these 5 warm up/cool down stretches.

Groin – Sitting with soles of feet together, grasp ankles and pull toward groin area. Place hands on inside and push knees out and down toward floor until you feel a stretch. Hold 10 seconds, relax and repeat 5 times.



Quadriceps – While standing bend knee and grasp ankle toward buttocks until you feel a stretch. Hold 10 seconds, relax, repeat 5 times. Alternate legs.



Hamstrings – Sit with one leg straight, other leg bent with heel against upper part of inner thigh. Lean over straight leg and grasp lower leg, pulling chin to knee. Keep knee straight. Hold 10 seconds, relax and repeat 5 times. Alternate legs.



Calf – Stand facing a wall. Using hands for balance, lower hips by bending knees toward ground and wall until you feel a stretch in lower calf. Do not allow heels to come off the floor. Hold 10 seconds, relax, repeat 5 times.



Lower back – Lie on back, keeping your head on the floor. Slowly pull both legs into your chest, and secure them there by wrapping your arms around the back of your knees. Exhale, pulling down on your legs while gradually lifting your buttocks off the floor. Hold till stretch is felt.



Some general stretching guidelines:

- ◆ Start stretching slowly
- ◆ Don't bounce while stretching
- ◆ Avoid violent movements
- ◆ Hold the stretched position
- ◆ Don't overdo
- ◆ Stretch 5 to 15 minutes before (warm-up) and after (cool-down) exercising

HIKING AND CAMPING SAFETY

Hiking and camping provide exercise and interest for people of any age. Just getting out and walking around is a wonderful way to see nature. Unexpected things happen; however, properly planning your camping trip can help ensure a safe, enjoyable experience.

Planning Ahead – Before you head into the wild, discuss any medical conditions with your health care provider and get approval for your plans before departing. Next, gather information from park rangers, read guide books about the terrain and weather, and talk with campers who've been where you want to go. Some areas require you to have reservations or certain permits. If an area is closed, do not go there. Find out in advance about any regulations--there may be rules about campfires or guidelines about wildlife. Get trained in American Red Cross first aid before starting out. Contact your local American Red Cross chapter for a Community First Aid and Safety course by visiting <http://www.redcross.org/where/where.html>.

Review the equipment and supplies needed, particularly in case of an emergency. It's a good idea to assemble a separate "survival pack" for each hiker to have at all times. In a small waterproof container place a pocket knife, compass, emergency signaling devices (whistle, pocket mirror, foil), space blanket, nylon filament, water purification tablets, matches and candle. With these items, the chances of being able to survive in the wild are greatly improved. Additional recommended items to pack for your trip include a cell phone or a two-way radio, first aid kit, maps, flashlight, insect repellent, sunscreen, and radio with batteries.

Know ahead of time the location of the nearest telephone or ranger station in case an emergency does occur on your trip. It's safest to hike or camp with at least one companion. If going into an unfamiliar area, try to take along someone who knows the



area. If entering a remote area, the group should have a minimum of four people; this way, if one is hurt, another can stay with the victim while two go for help. Make sure you have the skills you need for your camping or hiking adventure. You may need to know how to read a compass, erect a temporary shelter or give first aid. Practice your skills in advance. If your trip will be strenuous, get into good physical condition before setting out. If you plan to climb or travel to high altitudes, make plans for proper acclimatization to the altitude. Before going, check weather conditions and be sure to leave a copy of trip itinerary with family or friends. Include such details as the make, year, and license plate of your car and the equipment you're bringing.

Common Camping Dangers – One common mistake made by campers is not being ready for seasonal transitions in terms of proper clothing and equipment. Storms blow in and out during all seasons, and there can be sudden shifts in temperatures in spring and fall, particularly on high mountains. Precipitation and wind leads to rapid cooling, especially at nightfall when temperatures drop. To protect against sudden temperature and weather changes, wear multi-layered clothing made of polypropylene, wool, and cotton. Layers of clothing such as tank tops, long-sleeved shirts, and sweaters will allow you or your child to reduce or increase clothing as needed. To protect against rain and wind, bring breathable, lightweight waterproof jackets and pants. On hot days, hike in the cooler mornings and evenings. During the day, spend time in shaded areas.

Another common problem is getting lost. Memorize landmarks at the campsite and on hikes. While hiking, turn around and look at the trail to familiarize yourselves with your surroundings. The most important thing to do is to remain calm and stay in one spot. Consider wearing a whistle (whistles can

HIKING AND CAMPING SAFETY

(continued)

be heard farther away than the human voice) and use the universal help signal of three blows or loud sounds. Before your trip, take a course on map reading and finding directions. For wilderness trekking, always carry a topographical map and compass.

Setting Up a Campsite – At campgrounds that can be accessed by cars, many natural hazards such as forest fires and fallen trees are less likely to be encountered. Scout the area before setting up a tent. In wilderness areas, look for signs of animal and insect use of the area; for example, yellow jacket wasps build their nests in the ground. If berries are plentiful at a site, bears may forage for food there. The more remote you are, the more care you should take in choosing your site. Survey campsites for riverbanks and cliffs. To build a firepit, look for a clearing and previous firepits. During fire-hazard periods and dry seasons, use portable stoves rather than campfires.

Water and Food Supplies – Assume that all wilderness streams and creeks are potentially contaminated water sources due to domestic and wild animals. *Giardia lamblia*, a common parasitic contaminant, can cause nausea, bloating, gas, stomach cramps, and diarrhea. If you are unable to bring bottled water with you on your trip, water dissolvable iodine is an inexpensive and easy way to purify water. You can also use water filters. Boiling is acceptable, but appropriate boiling times vary according to elevation introducing a source of error. Plan your meals according to how many days you will be on your trip, and then bring extra food. Bring plenty of portable foods, such as granola bars, packaged trail mix, breads, peanut butter, fruit, and other camping-friendly foods. You can even purchase dehydrated meals that only require the addition of water. It's best to leave foraging for berries to the animals, because it's easy to mistake toxic berries



for edible ones that can make someone pretty sick and ruin the entire trip.

Protecting Against Animals and Insects– Never approach or feed wild animals. Check with park officials for recent bear warnings and closures. Park managers and park information centers are the best sources for information on bear sightings. Learn to recognize the signs of black and grizzly bear activity. These may include droppings, grizzly diggings, signs of feeding on berries, etc. If you see fresh signs, your best bet is to leave the area and allow them to have the trail. When hiking, make lots of noise, especially when on a trail with limited visibility or when the wind is blowing towards you, meaning that bears will not have the benefit of your scent. Keep the campsite free of food odors and do not bring food into tents. Also, don't cook near your tent site. Pack food in your cars overnight; or if you are camping in a remote area where bears are common, properly hang your food from a tree with a long rope so that the food is not accessible from the ground.

Use citronella-based products to repel insects and put it on clothing instead of skin whenever possible. Repellents containing DEET can also be used. Choose a repellent that contains no more than 10% to 30% DEET; in higher concentrations, the chemical (which is absorbed through the skin) can be toxic. Another camping concern is ticks, which can carry several types of infections, including Lyme disease. Check your body at the end of each day for ticks. Be sure to check in places like behind the ears, under the arms, and in the groin area, where ticks like to hide. Be aware of the typical rash of Lyme disease – a red ring about 2 inches in diameter around the bite appearing a few days after infection.

Lastly, remember to respect nature and enjoy your wilderness experience!

MOTORCYCLE SAFETY

Now that the weather is warming, many motorcycle owners are preparing to remove their bikes from winter storage and take that first cruise of the season. However, before heading out, riders should review the necessary safety precautions. There are over 4 million motorcycles registered in the United States. The popularity of motorcycles is attributed to their low initial cost, its use as a pleasure vehicle and, for some models, their good fuel efficiency.

It's important to note that motorcycle fatalities represent approximately five percent of all highway fatalities each year, yet they represent just two percent of all registered vehicles in the United States. One of the main reasons motorcyclists are killed in crashes is because the motorcycle itself provides virtually no protection in a crash. For example, approximately 80 percent of reported motorcycle crashes result in injury or death; a comparable figure for automobiles is about 20 percent.

Approximately half of all fatal single-vehicle motorcycle crashes involve alcohol. A motorcycle requires more skill and coordination to operate than a car. Riding a motorcycle while under the influence of any amount of alcohol significantly decreases an operator's ability to operate the motorcycle safely.

Additional causes of many motorcycle crashes can be attributed to:

- ◆ lack of basic riding skills
- ◆ failure to appreciate the inherent operating characteristics
- ◆ failure to appreciate the limitations of the motorcycle
- ◆ failure to use special precautions while riding
- ◆ failure to use defensive driving techniques
- ◆ lack of specific braking and cornering skills
- ◆ failure to follow speed limits

As a military operator, you are required to follow

procedures such as attend a driver safety course, obtain a license, and wear proper protective equipment, even if it is not required by the state in which you reside. Many Army posts have established rider mentorship programs where experienced riders team with new riders to enhance the skill of riders.

A motorcyclist has to be more careful and anticipate what may happen more than other vehicle drivers may. Experienced motorcyclists often have this advice for new riders: "Assume that you are invisible to other motorists and operate your motorcycle accordingly." Motorcyclists should be particularly cautious at intersections, where most motorcycle-vehicle collisions occur. At intersections where vision is limited by shrubbery, parked vehicles, or buildings, slow down, make doubly sure of traffic, and be prepared to react quickly. Anticipate what may happen more than other vehicle drivers may. For example, anticipate that drivers backing their cars out of driveways may not see you; and place greater emphasis on defensive driving. Don't ride in a car's "No Zone" (blind spot). Check the rearview mirrors before changing lanes or stopping. A quick stop without checking rear traffic may result in a rear-end crash. When changing lanes, use signals and make a visual check to assure that you can change lanes safely. Always use your headlights.

Motorcyclists also must be more cautious when riding in inclement weather, on slippery surfaces, or when encountering obstacles on the roadway. When riding in the rain, riders find they get better traction by driving in the tracks of vehicles in front of them. But avoid following too closely, and riding on painted lines and metal surfaces such as manhole covers because they offer less traction.

Motorcyclists must place greater reliance on their helmet, eye protection and clothing to increase riding comfort and to reduce the severity of injury should they become involved in a crash. Studies

MOTORCYCLE SAFETY (continued)

show that the head, arms, and legs are most often injured in a crash. Protective clothing and equipment serve a three-fold purpose for motorcyclists: comfort and protection from the elements; some measure of injury protection; and through use of color or reflective material, a means for other motorists to see the motorcyclist. Upper body clothing should be brightly colored. Some riders wear lightweight reflective orange or yellow vests over their jackets. Retro-reflective material used on clothing, helmet, and the motorcycle helps to make the rider visible to other motorists, especially at night. A high percentage of car-vehicle crashes occur because the driver of the other vehicle "failed to see the rider in time to avoid the crash."

For more information on motorcycle safety and rider education course visit <http://www.msf-usa.org/>.



UPCOMING COURSES AND SEMINARS

Title: Interstate Technology & Regulatory Council (ITRC) – Risk Assessment and Risk Management: Determination and Application of Risk-Based Values

Location: Internet Based **Date:** 6/14/2007, 11:00 a.m. — 1:15 p.m. eastern time

Description: Assessment of human health risks posed by exposure to hazardous substances is a vital component to the process of remediation of contaminated sites. Risk-based screening values are developed and used in both planning and conducting site remediation. This training course is designed for site managers and others involved in making remedial decisions to help them better understand the risk assessment/risk management process. This training course describes a number of the reasons behind variations in risk-based screening values and their use in risk management. Overall, the training course enhances the transparency and understanding of risk assessment and its use in remediation. On-line course registration opens 4-6 weeks before the session.

Web: For registration visit <http://clu-in.org/studio/seminar.cfm#upcoming>.

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Visit us at:

<http://mrmc-www.army.mil>

Reminder

*For all accidents, no matter how minor,
specific forms documenting the incident must be submitted to your Safety Office.*

Military: DA Form 285-AB-4

Civilian: DOL Claims Forms CA-1 or CA-2

All employees requiring medical attention must visit your local Occupation Health Clinic as soon as possible post mishap.