RIT Recreation and Wellness
Catastrophic EAP

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Emergency defined: an unforeseen combination of circumstances and the resulting state that calls for immediate action. The athlete's life is in jeopardy or the athlete risks permanent impairment. Emergency situations may arise at any time during athletic events. Quick action must be taken to provide the best possible care to the athlete of an emergency and/or life-threatening condition.

Specific emergency protocols:

- Ø Sudden Cardiac Arrest
- Ø Cervical Spine
- Ø Exertional Rhabdomyolysis – Sickle Cell Trait
- Ø Respiratory
- Ø Diabetic
- Ø Anaphylactic Shock

Personnel:

- Ø Athletic Trainer
- Ø EMT personnel
- Ø Game Managers
- Ø Coaches
- Ø CPR/AED/First Aid certified personnel

Home events for M&W Hockey, M&W Rugby, and M Lacrosse will have coverage from a certified athletic trainer (ATC) or emergency medical technician (EMT) at all home events.

Practices will not be covered by an ATC or EMT. All teams should have an individual certified in CPR/AED/First Aid at every practice.

Chain of Command – whoever is available at practice or event:

1. Certified Athletic Trainer or Emergency Medical Technician
2. Safety Officer
3. Coaches
4. Instructors
5. Game Day Managers
6. Individuals certified in CPR/AED/First Aid

Communication:

1. Activation of Campus Safety 585-475-3333 or emergency medical services (EMS) 9-1-1
2. Instruct campus safety or EMS to your location.

Emergency Procedures:

1. Check the scene for safety
2. Identify severity of injury
    a. What happened? Number of patients?
    b. Breathing, level of consciousness, and severe bleeding
3. Call campus safety 585-475-3333.
4. Provide the following information:
    a. Who you are, general information about the injury or situation, number of individuals involved
    b. Where you are
    c. STAY ON THE PHONE, BE THE LAST TO HANG UP
5. Perform emergency care – CPR/AED/First Aid if able
6. Get emergency equipment (AED and first aid kit)
7. Meet the ambulance:
    a. Open gates/doors
    b. Flag down EMS and direct to scene
8. Accompanying patient to the hospital
9. Document event, fill out injury report
10. Contact Director of Recreation and Wellness

AED Locations:

- Turf Field – located near north end of the field near entrance (removed in the winter)
- Gene Polisseni Center – located on the wall near first aid room, visitor side
- Gordon Field House – located on the wall behind check in/out desk
- Student Life Center – located at the cage
- Student Life Center upstairs track– located on the wall near entrance
- Ritter Arena – located on wall in main lobby
- Grace Watson Hall - Floor 1, area 1200
- During home events – located with game day manager and/or athletic trainer and/or EMT

Venue Specific Emergency Action Plans:

Each venue at RIT and off campus home sites has a venue specific emergency action plan. This is readily available to all coaches, team representatives, game day managers, athletic trainers, EMT, and any other personnel working at home events. This should be reviewed prior to the start of the home contest and nearest AED located.

Equipment:

You should know what equipment will be available during home events. Location of emergency equipment will be outlined on the venue specific EAP.

CATASTROPHIC INJURY COMMUNICATION PLAN

If a catastrophic injury occurs, here are the guidelines set forth that should be followed.

- ATC, EMT, and/or game managers reach out to Club sports program coordinator or Associate Director of Club sports and intramurals.
- Associate Director of Club Sports and intramurals reach out to Director of recreation and wellness.
- Director of Recreation and Wellness reaches out to Senior Vice President Student Affairs
- Department of Risk Management will be notified.
- Complete documentation of events with signatures of everyone involved in the incident.
    - Timeline of events related to incident
    - Collect and secure all equipment/materials involved.
- Contact family by appropriate RIT individual. (Assist as needed).
- A meeting with athletes will be held to discuss the situation.
    - NO outside discussion with the media.
- Involve appropriate counseling/ministerial personnel.

Sudden Cardiac Arrest

Sudden cardiac arrest (SCA) is the leading cause of death in young athletes. The presence and timely access of automated external defibrillators (AEDs) at sporting venues provides a means of early defibrillation. Access to early defibrillation is essential, and a target goal of less than 3 to 5 minutes from the time of collapse to the first shock is strongly recommended.

The two most common structural cardiac abnormalities that cause sudden cardiac death are hypertrophic cardiomyopathy and coronary artery anomalies. The most common non-medical reason for SCA is commotio cordis or a blunt, nonpenetrating blow to the chest that creates an abnormal ventricular arrythmia.

1. Sudden cardiac arrest should be suspected in any collapsed and unresponsive athlete.
2. AED should be applied as soon as possible.
3. CPR should be given while waiting for an AED.
4. Interruptions in chest compressions should be minimized and CPR stopped only for rhythm analysis and shock, CPR should be resumed after the shock.

Signs and Symptoms:

- Chest pain and/or neck pain
- Severe headache
- Excessive breathlessness
- Dizziness
- Nausea/vomiting
- Increased fatigue
- Palpitations
- Cold sweat
- Uncomfortable pressure

Chain of Survival

1. Early recognition of the emergency and activation of emergency medical services (EMS) 9-1-1
2. Early cardiopulmonary resuscitation (CPR).
3. Early defibrillation, use of an AED.

4. Early advanced cardiac life support.
5. Advanced live support and post-arrest care.

Preparation is key to the survival once SCA has occurred:

1. Individuals certified in CPR/AED
2. Venue specific emergency action plans (EAPs)
3. Access to AEDs
4. Early detection, rapid activation of EMS, prompt CPR and early defibrillation are vital to survival.

Cervical Spine Injuries

A catastrophic cervical spine injury is defined as ‘‘a structural distortion of the cervical spinal column associated with actual or potential damage to the spinal cord.’’ Cervical spine injuries range from serious to catastrophic can be a cause of sudden death in athletes competing in both contact and non-contact sports.

A cervical spine injury is assumed if an athlete exhibits loss of consciousness or has altered mental status.

It should be known that only appropriate medical staff are permitted to move an injured athlete.

Symptoms of suspected cervical spine injury:

- Witnessing mechanism of injury
- Witnessing athlete who remains down or motionless after play
- Abnormal neurological findings
    - Tingling, numbness, or weakness in extremities
- Loss of motion in extremities
- Cervical spine pain with or without palpation
- Cervical spine deformity
- If you suspect that an athlete has a spinal cord injury, **DO NOT** move the athlete. Activate the emergency action plan.

Management Protocol:

1. Activate campus safety 585-475-3333 or EMS 9-1-1
2. Do not move athlete
3. Allow ATC or EMT on site to manage care of the athlete
4. If no ATC or EMT is on-site, monitor breathing until advance care arrives

Diabetic Athlete

The primary goal of diabetes management is to consistently maintain blood glucose levels in a normal or near-normal range (100 to 180 mg/dL) without provoking undue hypoglycemia. Proper management of blood glucose levels during practices and games allows the athlete to compete in a safe and effective manner.

The diabetic athlete should have regular follow-up with a physician primarily responsible for managing their diabetes. A written treatment protocol from that physician should be readily available.

Type I Diabetic: Insulin dependent diabetes mellitus (IDDM)

- Patient makes no insulin, requires daily insulin injections
- Usual onset is childhood/adolescence

Type II Diabetic: Non-insulin dependent diabetes mellitus (NIDDM)

- Patient makes some insulin but has a resistance to it causing improper glucose control.

- Usual onset in late adulthood
- Controlled by diet and/or oral medications

Hypoglycemia:

Condition caused by very low level of blood sugar (glucose) and exercise can cause hypoglycemia. Blood sugar levels below 70mg/dL.

Signs and Symptoms:

- Tachycardia
- Sweating
- Nervousness
- Trembling
- Hunger
- Headache/ dizziness
- Fatigue

Treatment:

- 15-15 Rule – 15grams of carbohydrate and check after 15 minutes
- Repeat if blood sugar is still below 70mg/dL
- Once blood sugar reaches 70mg/dL or greater, eat a meal or snack to make sure it doesn't lower again.
- Glucose tablets or gel tube
- 4 ounces (1/2 cup) of juice or regular soda
    - tablespoon of sugar, honey, or corn syrup

Hyperglycemia:

Condition caused by high blood sugar levels >180 mg/dL. High intensity exercise may result in hyperglycemia. The rise in glucose levels is usually transient in well controlled athlete and they will see a decline within 30-60 minutes.

Signs and symptoms:

- Dehydration
- Nausea
- Reduced cognitive performance
- Sluggishness and fatigue
- Fruity odor on their breath
- Increased thirst
- Frequent urination

Treatment:

- Athlete should drink non-carbohydrate fluids when blood glucose levels exceed 180mg/dL.
- Frequent blood glucose monitoring.
- Should consult their physician. The athlete may need either small boluses of rapid acting insulin or temporary increase in basal rate insulin.

Diabetic Emergency:

- Patient is unconscious
- Unable to eat or drink safely because they are confused or disoriented
- Having seizures
- Treatments for hypoglycemia/hyperglycemia are not helping

Management of diabetic emergency:

1. Activate campus safety 585-475-3333 or EMS 911
2. Monitor breathing
3. Obtain treatment protocol and/or emergency kit if known, grab glucagon kit

Safety:

- Educate coaching staff and players on signs and symptoms of diabetic emergency

Exertional Heat Illnesses

The risk of exertional heat illness is ever present during exercise in the heat but can also occur in "normal" environmental conditions. Please refer to the Heat and Humidity Protocol for further information.

Heat Syncope

Often occurs in unfit or un-acclimatized persons who stand for long periods of time in the heat or sudden changes in posture. Often attributed to dehydration, venous pooling of blood, reduced cardiac filling, or low blood pressure.

Signs and symptoms:

- Dizziness
- Tunnel vision
- Pale or sweaty skin
- Decreased pulse rate

Treatment:

- Move to shaded area
- Monitor vital signs
- Elevate the legs above the heart
- Cool the skin
- Rehydration

Heat exhaustion

Is the inability to effectively exercise in the heat, secondary to combination of factors, including cardiovascular insufficiency, hypotension, energy depletion, and central fatigue. This condition is manifested by an elevated core body temperature below 105°F.

Signs and symptoms:

- Excessive fatigue
- Weakness
- Dizziness
- Headache
- Vomiting/nausea

- Lightheadedness
- Low blood pressure
- Impaired muscle coordination

Treatment:

- Remove any excess clothing and equipment
- Moved to cool and shaded area
- Use fans and cool towels
- Monitor vital signs
- Elevate the legs above the heart
- Fluid replacement

Exertional Heat Stroke

This is the most severe heat illness. Characterized by neuropsychiatric impairment and high body core temperature, greater than 105°F. This is a medical emergency.

Signs and Symptoms:

- Central nervous system dysfunction
- Core body temperature greater than 105°F
- Disorientation
- Confusion
- Dizziness, loss of balance, staggering
- Irritability
- Irrational or unusual behavior
- Aggressiveness
- Hysteria, delirium
- Collapse or loss of consciousness

Treatment:

1. This is a medical emergency
2. Quick body cooling, immersed in a pool or tub
3. If a tub isn't available, then use wet ice towels or cold water dousing continuously

Prevention of exertion heat illness:

- Pre-participation medical screening for at risk athletes
- Acclimatization to heat should be gradual over 7-14 days.
- Progressively increasing intensity and phasing protective equipment
- Appropriate fluid replacements lost during and after games and practices
- Maintain a state of euhydration
- Access to fluids always, allow breaks when needed

- Refer to the Heat and Humidity Protocol for practice/competition changes due to warm temperatures

Management of heat stroke:

1. Call campus safety 585-475-3333 or EMS 911
2. Monitor breathing
3. Take to a shaded area
4. Cool the body in a cold tub or ice bags under the arms, torso, groin, neck

Cold related illness

Cold injuries are a common result of exposure to cold environments during physical activity where conditions are cold, wet, or windy, or a combination of these. These injuries depend on the combination of 2 factors: low air or water temperatures and the influence of wind on the body's ability to maintain normal core temperature. Please refer to the Cold Weather Policy for more information.

Hypothermia:

Decrease in core body temperature below 95°F. Classified as mild, moderate, or severe.

Mild hypothermia signs and symptoms:

- Core temperature 98.6°F to 95°F
- Amnesia, lethargy
- Vigorous shivering
- Impaired fine motor control
- Polyuria
- Pallor
- Typically conscious, blood pressure is normal

Moderate hypothermia signs and symptoms:

- Core temperature 94°F to 90°F
- Depressed respiration and pulse
- Cardiac arrhythmias
- Cyanosis
- Cessation of shivering
- Impaired mental function
- Slurred speech
- Impaired gross motor skills
- Muscle rigidity
- Loss of consciousness
- Dilated pupils, blood pressure decreased

Severe hypothermia signs and symptoms:

- Core temperature below 90 F
- Rigidity
- Bradycardia
- Severely depressed respiration
- Hypotension, pulmonary edema
- Spontaneous ventricular fibrillation or cardiac arrest

- Usually comatose

Treatment of hypothermia:

- Remove wet or damp clothing
- Insulate the athlete with warm, dry clothing or blankets
- Move athlete to warm environment
- Apply heat to the trunk, axilla, chest wall, and groin
- Provide warm, nonalcoholic fluids and foods containing 6%-8% carbohydrates
- Avoid friction massage to tissues.
- For moderate to severe hypothermia monitor vitals and be prepared to perform CPR if necessary. Transport athlete for further medical treatment.

Prevention of cold injuries:

- Identify those athletes that are at an increased risk of cold related injuries and monitor for signs and symptoms.
- Educate athletes and coaches concerning the prevention and recognition of cold injuries.
- Maintain proper hydration and eat a well-balanced diet. Athletes should be encouraged to hydrate even if they are not thirsty.
- Clothing should provide an internal layer that allows evaporation of sweat, a middle layer that provides insulation, and a removable external layer that is wind and water resistant.
- Remove wet clothing when practical and put on dry clothes.
- Protect toes, fingers, ears, and skin when wind-chill temperatures are in range at which frostbite can occur.
- Modify activity in high-risk conditions to prevent cold injuries.

Exertional Rhabdomyolysis (ER)

Rhabdomyolysis is the breakdown of skeletal muscle and leakage into the bloodstream of muscle contents. Occurs in the setting of strenuous exercise and can range from mild to severe. The signs and symptoms of severe exertional rhabdomyolysis can begin in the first few hours after triggering exercise bout and tend to peak over the subsequent two days.

Causes of exertional rhabdomyolysis:

- Novel overexertion – too much, too soon, and too fast. Trying to condition athletes in a short period of time with no gradual increase
- Exertional heat illness
- Asthma attack
- Dehydration
- Those individuals with the sickle cell trait
- Workouts not part of periodized, progressive performance program
- Irrationally intense workouts
- Performing exercise to muscle failure during the eccentric phase of exercise
- Increasing the number of exercise sets and reducing the time needed to finish
- Increasing the amount of weight lifted as a percentage of body weight

Signs and symptoms:

- Muscle pain, soreness
- Stiffness

- Weakness
- Loss of mobility
- Swollen and tender muscles

Signs and symptoms of severe ER:

- Muscle pain more severe and sustained than expected
- Swelling of muscles and adjacent soft tissues
- Weak muscles, especially in hip or shoulder girdle
- Limited active and passive range of motion
- Brown urine from myoglobin.

Prevention:

- Moderation – avoid too much, too soon, too fast
- All training programs should start slowly, build gradually, include adequate rest, and allow for individual differences
- Avoid physical activity as punishment
- Fluids should be regularly available and frequent breaks should be scheduled
- Avoid high intensity conditioning workouts after vacations or seasonal breaks

Emergency Plan:

- Stop activity
- Monitor vital signs
- Cool athlete if necessary
- Call campus safety 585-475-3333 or EMS 911 if athlete is declining
- Prepare for CPR

Sickle Cell Trait

Sickle cell trait is the inheritance of one gene for sickle hemoglobin and one for normal hemoglobin. Sickle cell trait is a lifelong condition that will not change over time.

With intense exercise, red blood cells containing sickle hemoglobin can change shape from round to quarter-moon or sickle. Sickled red cells may accumulate in the bloodstream during intense exercise, blocking normal blood flow to the tissues and muscles.

Symptoms:

- Muscle pain and weakness of immediate onset similar to cramping but no visible or palpable spasm
- Athlete “slumps to a stop” and cannot hold themselves up
- Weakness, tenderness, inability to catch breath
- Fatigue
- Usually occurs with intense workout
- Temperature and humidity not always a factor
- Often occurs in the first 2-5 days of training
- Unlike cardiac arrest – athlete can still talk when on the ground
- Can occur in even a well hydrated athlete
- Altitude can have an impact

Treatment and Precautions:

- Build up slowly in training with paced progressions, allowing longer periods of rest and recovery
- Encourage participation in preseason strength and conditioning programs to enhance the preparedness of athletes
- If sickle cell trait athletes can set their own pace, they seem to do fine
- Adjust work/rest cycle for environmental heat stress
- Cessation of activity with onset of symptoms
- Cool the athlete
- Emphasize hydration
- Control asthma, if applicable
- No workouts if an athlete with sickle trait is ill
- Modify training to athletes new to altitude
- Educate to create an environment that encourages athletes with sickle cell trait to report any symptoms immediately.

Medical emergency:

- In a sickling event a "log or traffic jam" occurs which can lead to ischemic rhabdomyolysis in which broken down muscle cells get released into the bloodstream.
- Can occur in 2-3 minutes of intense exertional exercise or high intensity with repetitions.
- Sickling collapse is a medical emergency.

Managing Sickle Cell Trait
Emergency Plan:

1. Stop activity
2. Monitor vital signs or breathing
3. Cool athlete if necessary
4. Call campus safety 585-475-3333 or EMS 911 if athlete is declining

Asthma

Asthma is a disease which may be developed at any time in life, the risk factors presented here describe not only the risk of having an asthmatic episode, but also those which influence the development of the disease.

Risk factors:

- Allergens (indoor and outdoor)
- Respiratory illness
- Time of day (early morning or night time)
- Poor asthma control
- NSAID medications or aspirin
- Cold weather
- Environmental factors (smoke, allergens, dust mites, pollution)

Asthma episode or attack signs and symptoms:

- Wheezing
- Coughing

- Chest tightness
- Difficulty speaking in complete sentences
- Shortness of breath
- Drowsiness
- Episodic breathlessness
- Confusion
- Possibility of loss of consciousness or change in mental status due to restricted oxygen

Treatment:

- Controller medications:
    - Daily, long-term interventions used prophylactically to manage the symptoms of asthma. Not used to treat acute asthma attacks.
- Rescue medications:
    - Act rapidly to treat acute bronchoconstriction and associated symptoms of coughing, wheezing, shortness of breath, and chest tightness.
    - Athlete should have inhaler readily available at all practices and games.

Management of Asthma:

- Athlete experiences respiratory distress
- Significant increase in wheezing or chest tightness
- Inability to speak full sentences
- Uncontrolled coughing
- Nasal flaring
- If athlete has used rescue inhaler and symptoms are not improving, then call campus safety 585-475-3333 or EMS 9-1-1

Anaphylaxis shock

A severe, life-threatening allergic reaction to foods (peanuts, fish, shellfish, milk, or egg), insect stings (bees), medications, or latex.

Symptoms:

- Trouble breathing
- Hives or swelling
- Tightness of the throat
- Hoarse voice
- Nausea, vomiting
- Abdominal pain
- Dizziness or fainting
- Rapid heart rate
- Cardiac arrest

Treatment and Management:

1. Anaphylactic shock should be treated immediately with an injection of epinephrine (EpiPen) and call campus safety 585-475-3333 or EMS 9-1-1.
2. Know your triggers.
3. Avoidance of triggers is the most effective way to prevent anaphylaxis.

4. Be prepared for an emergency, always carry epi-pen

Emergency:

- If anaphylactic shock is suspected, have athlete administer epi-pen or help assist them
- Firmly place the orange tip of the EpiPen against the middle part of the upper thigh, pushing until it makes a clicking noise.
- Hold EpiPen in place for 2 seconds
- Use fingers to gently massage the area of the injection for about 10 seconds

RIT Campus Wide Emergency

RIT Alert is the university's emergency notification system. It is used to notify the campus community in the event of a significant emergency or dangerous situation on campus or in the local area. You should ensure that your mobile phone number is up to date on your SIS account.

To report an emergency call Public Safety at 585-475-3333 or text 585-205-8333. To report an incident please go to this website Reporting an Incident.

Based on your practice or game location and whether you are inside or outside, you should know buildings, rooms, and/or locker room that you can utilize in case of an emergency.

Review the RIT Emergency Action Plan located here: RIT Emergency Information.

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