



GONZAGA PREP

SPORTS MEDICINE

POLICIES AND PROCEDURES MANUAL

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MISSION STATEMENT

The mission of the Gonzaga Preparatory Sports Medicine program is to ensure the wellness of all student-athletes through the prevention, recognition, evaluation, and assessment of athletic injuries. Additionally, the sports medicine staff will provide immediate care, rehabilitation, and reconditioning of any injuries sustained. The Gonzaga Preparatory Sports Medicine program also aims to educate and expose students to various healthcare professions through different aide opportunities.

SPORTS MEDICINE TEAM

The Sports Medicine Team at Gonzaga Preparatory is comprised of numerous individuals from different healthcare and academic backgrounds. It should be noted that the Team Physician is the head of the Sports Medicine Team. The Team Physician, and by extension Athletic Trainer working under the Team Physician, have final authority regarding return-to-play decisions.

Sports Medicine Team Members

- Team Physician(s)
- Athletic Trainer
- Physical Therapist (U-District PT)
- Strength and Conditioning Coach
- Athletic Coach(es)
- President
- Principal
- Dean of Students
- Teacher(s)
- Vice Principal of Athletics and Activities
- School Counselor
- Learning Specialist
- Parent(s)/Guardian(s)

ATHLETIC TRAINER AND TEAM PHYSICIAN RELATIONSHIP

In accordance with recommendations from the National Athletic Trainers' Association's Position Statement on Best Practices in Sports Medicine in the Secondary School and Collegiate Settings, the duties and responsibilities for both the Team Physician and Athletic Trainer are outlined:

Athletic Trainer

- Develop and implement a comprehensive Emergency Action Plan
- Coordinate pre-participation screenings
- Prevent, recognize, diagnose, refer, treat, and rehabilitate athletic injuries
- Establish criteria for safe return to practice and play and implement the return-to-play process
- Establish and operate treatment facilities for both practice and game situations that follow national and local standards
- Determine which venues and activity settings require the on-site presence of the athletic trainer and team physician
- Assist with the selection, fit, function, and maintenance of athletic equipment
- Maintain accurate medical records
- Assist with the design and implementation of strength and conditioning programs
- Establish a safe practice and playing environment by monitoring environmental risk factors
- Communicate with coaches about student-athlete's condition and progress, in cooperation with the team physician
- Communicate with parents or guardians about the student-athlete's status in cooperation with the team physician

Team Physician

- Ensure proper preparation for safe return to participation after illness or injury
- Participate in pre-participation screenings, examinations, and evaluations
- Assist in the management of on-the-field injuries when present
- Provide medical management of injury and illness
- Assist in the coordination of rehabilitation and return to participation
- Integrate medical expertise with that of other health care providers, including medical specialists, athletic trainers, and allied health professionals
- Provide appropriate education and counseling regarding nutrition, strength and conditioning, ergogenic aids, substance abuse, and other medical issues that could affect student-athletes
- Educate student-athletes, parents, guardians, administrators, coaches, and other necessary parties of concern regarding the student-athlete
- Ensure proper documentation and medical record keeping
- Provide appropriate event coverage

OUTSIDE HEALTHCARE PROVIDERS

Student-athletes at Gonzaga Preparatory and their parent(s)/guardian(s) may seek care from any healthcare provider of their choice. Providers not associated with the Gonzaga Preparatory Sports Medicine Team can withhold student-athletes from participation but cannot make final return-to-play decisions. For liability reasons, definitive return-to-play decisions for any student-athlete are made by the Team Physician and Athletic Trainer.

INJURIES OUTSIDE GONZAGA PREPARATORY SCHOOL

The Sports Medicine Team at Gonzaga Preparatory is responsible for managing injuries sustained during WIAA and school-sanctioned athletic contests and activities. If a student-athlete sustains an injury during a non-school-sanctioned event, such as a club sport, the Sports Medicine Team will not be responsible for managing the injury. The Athletic Trainer and other members of the Sports Medicine Team are happy to offer advice on how to treat outside injuries but for liability reasons will not be involved in any return-to-play decisions.

CONCUSSION AND RELATED HEAD INJURIES

The concussion management program at Gonzaga Preparatory is multi-faceted and involves numerous members to support adequate healing. To ensure proper healing and safe return for student-athletes the Sports Medicine Team has adopted best practices based upon the Concussion in Sport Group, HeadSmart™ program, and Northeast Sports Medicine Advisory Committee (NEWSMAC). It must be remembered that every individual recovers from concussion and related head injuries at a different pace. It is important to look at each individual injury separately and to be conservative in their management.

As concussion diagnosis and recovery continues to evolve, the Sports Medicine Team at Gonzaga Preparatory will continue stay current with best practices and management techniques.

CERVICAL SPINE INJURIES

According to the National Athletic Trainers' Association's position statement on Acute Management of the Cervical Spine Injured Athlete, there are an estimated 11,000 new cases of spinal cord injury every year in the United States. Of these, sports participation accounts for 7.4% of these injuries, and since 2000, the majority of cervical spine injuries have occurred in individuals between the ages of 16 and 30. Additionally, American football accounts for the most catastrophic spinal injuries of any sport in the country.

At Gonzaga Preparatory the presence of any or all of the following clinical indicators will warrant the activation of the spine injury management protocol: unconsciousness or altered level of consciousness, bilateral neurologic findings or complaints, significant cervical spine pain with or without palpation, and obvious spinal column deformity. Once a cervical spine injury is suspected, manual cervical immobilization in the neutral position will be implemented. If the spine is not in a neutral position an attempt may be made to realign the cervical spine to minimize secondary injury to the spinal cord and allow for optimal airway management. Realignment of the cervical spine is contraindicated with the presence or development of any of the following: movement causes increased pain, neurologic symptoms, muscle spasm, airway is compromised, it is physically difficult to move the athlete, resistance is encountered during the attempt at realignment, and/or apprehension from the athlete.

When the attempt is made to expose the airway the jaw thrust maneuver will be used over the head-tilt-technique. If rescue breathing becomes necessary, the individual with the most training and experience will establish an airway and commence rescue breathing using the safest technique.

If transferring an athlete becomes necessary manual stabilization of the cervical spine will be maintained in conjunction with external stabilizing tools until a destabilizing injury has been ruled out. When transferring an athlete onto a spine board the lift-and-slide technique will be used when the athlete is in the supine position and the log-roll method will be used when the athlete is in the prone position.

In the equipment-laden athlete, the removal of a helmet and shoulder pads will be deferred until they have been transported to an emergency medical facility. Removal of equipment will only occur if the helmet is not properly fitted or if the equipment prevents neutral alignment. If equipment must be removed it will be an all-or-none endeavor.

EXERTIONAL HEAT ILLNESSES

This section will define different types of heat related illnesses and outline the management techniques used by the Gonzaga Preparatory Sports Medicine team to remedy said illnesses. The techniques used have been adopted in accordance with recommendations made by the National Athletic Trainers' Association's Position statement on Exertional Heat Illnesses and the Korey Stringer Institute.

Exercise (heat) exhaustion is the inability to continue exercise associated with any combination of heavy sweating, dehydration, sodium loss, and/or energy depletion. Other symptoms include lightheadedness, syncope, headache, nausea, anorexia, diarrhea, pallor, profuse sweating, chills, clammy skin, intestinal cramps, and hyperventilation. If exercise (heat) exhaustion is suspected the athlete will be moved to a cool or shaded area and any excess clothing or equipment will be removed. The athlete will be cooled with cold-soaked towels and ice bags and replenishment of fluids will take place. If the athlete's condition worsens or they are not recovering, appropriate referral to the Team Physician will take place.

Exertional heat stroke is an elevated core temperature ($>104^{\circ}\text{F}$) associated with signs of organ system failure due to hyperthermia. Common signs and symptoms include central nervous system changes (dizziness, drowsiness, confusion, irritability, etc.), dehydration, weakness, tachycardia, hypotension, and vomiting. The gold standard in differentiating between exercise (heat) exhaustion and exertional heat stroke is the use of a rectal thermometer. Considering the Gonzaga Preparatory Sports Medicine team does not possess a rectal thermometer, any individual displaying signs and symptoms of exertional heat stroke will be treated as such until it can be ruled out by the Team Physician or another provider at an advanced medical facility. Treatment of exertional heat stroke on site at Gonzaga Preparatory will include rapid cooling of the athlete, including ice bath submersion, and activation of EMS if the Team Physician is not present.

Exertional hyponatremia is a relatively rare condition defined as a serum-sodium level less than 100mmol/L. Low serum-sodium levels usually occur when activity exceeds 4 hours. Affected athletes generally present with a combination of disorientation, altered mental status, headache, vomiting, lethargy, and swelling of the extremities. If exertional hyponatremia is suspected and the athlete is displaying mild symptoms with no CNS deterioration, they will be removed from activity and given salty foods to consume with restricted amounts of fluids. If exertional hyponatremia is suspected and the athlete is displaying CNS deterioration activation of EMS and transportation to an advanced medical facility will occur. The medical facility should insert an intravenous line to increase sodium levels within the body. In both scenarios the athlete cannot return to participation until cleared by the Team Physician.

In an effort to reduce the chance of an exertional heat illness occurring, coaches and the sports medicine team at Gonzaga Preparatory will work to acclimate their athletes to the environmental conditions they are participating in. Additionally, specific guidelines for practices

and competitions will be made by the Sports Medicine Team based on Wet Bulb Globe Temperature (WBGT) readings.

WBGT Temperature	Level of Risk	Comments
<65°F	Low	Practice in full equipment
65°-73°F	Moderate	Consider changing practice time to cooler part of day; modify equipment being worn
73°-82°F	High	Change practice time to cooler part of day; light equipment being worn
>82°F	Hazardous	Change practice time to cooler part of day; no equipment worn at practice; high a

Heat Stress Index

		Relative Humidity (%)												
		40	45	50	55	60	65	70	75	80	85	90	95	100
Temperature (°F)	110	136												
	108	130	137											
	106	124	130	137										
	104	119	124	131	137									
	102	114	119	124	130	137								
	100	109	114	118	124	129	136							
	98	105	109	113	117	123	128	134						
	96	101	104	108	112	116	121	126	132					
	94	97	100	103	106	110	114	119	124	129	135			
	92	94	96	99	101	105	108	112	116	121	126	131		
	90	91	93	95	97	100	103	105	109	113	117	122	127	132
	88	88	89	91	93	95	98	100	103	106	110	113	117	121
	86	85	87	88	89	91	93	95	97	100	102	105	108	112
	84	83	84	85	86	88	89	90	92	94	96	98	100	103
82	81	82	83	84	84	85	86	88	89	90	91	93	95	
80	80	80	81	81	82	82	83	84	84	85	86	86	87	

- CAUTION** Possible Fatigue with Prolonged Exposure
- EXTREME CAUTION** Heat-Related Illness Possible with Prolonged Exposure
- DANGER** Heatstroke Possible and Heat-Related Illness Likely
- EXTREME DANGER** High Risk of Heatstroke

Source: Adapted from NOAA National Weather Service Heat Inde:

DIABETES MELLITUS

As with any student at Gonzaga Preparatory, students with Type 1 diabetes are encouraged to participate in athletics and other activities. In an effort to ensure a safe and enjoyable experience, the sports medicine staff has adopted recommendations from the National Athletic Trainers' Association.

To help prevent life-threatening events during exercise, the first line of defense is the development of a Diabetes Care Plan by the athlete's physician. This plan should identify blood glucose targets for practices and competitions with exclusion thresholds; strategies to prevent exercise-associated hypoglycemia, hyperglycemia, and ketosis; list of medications used for glycemic control; signs, symptoms, and treatment protocols for hypoglycemia, hyperglycemia, and ketosis; and emergency contact information.

With regards to hypoglycemia, a three-pronged approach is used to help prevent this situation from occurring: frequent blood glucose monitoring, carbohydrate supplementation, and insulin adjustment. The athletic trainer will carry a very limited amount of carbohydrate supplements. It is the responsibility of the student-athlete to have appropriate carbohydrate supplements and other diabetic supplies with them at all practices and competitions. It is recommended that student-athletes check their blood glucose levels 2 or 3 times before, every 30 minutes during, and every hour up to 4 hours after physical activity.

With regards to hyperglycemia, if insulin levels are adequate the student-athlete may still participate in their given activity. If insulin levels are insufficient, student-athletes will be required to check for ketones in their urine. If ketones are present, the student-athlete will not be allowed to participate in physical activity.

EXERTIONAL SICKLING

Sickle cell trait is the inheritance of one gene for sickle hemoglobin and one for normal hemoglobin. During exercise individuals with the sickle cell trait can develop rhabdomyolysis, which can be a life-threatening situation. At Gonzaga Preparatory student-athletes are screened for the sickle cell trait during their pre-participation physical examination. If the sickle cell trait is identified in a student-athlete they are still allowed to participate in athletics, but with certain modifications. According to the National Athletic Trainers' Association the following guidelines should be implemented for student-athletes with sickle cell trait: build up slowly in training with paced progressions, allow longer periods of rest and recovery, participation in pre-season training programs, cessation of activity with onset of symptoms, let student-athlete set their own pace at practice, and maintain adequate hydration during physical activity.

In the event of a sickling collapse, the EAP will be followed and EMS activated. Signs and symptoms of a sickling collapse include: cramping with a lack of tetanus, inability to maintain stance due to weak musculature, and muscles appear normal even though athlete cannot stand.

LIGHTENING SAFETY

To help prevent lightning casualties at Gonzaga Preparatory guidelines have been adopted based on recommendation from the National Athletic Trainers' Association. Before outside athletic events the athletic trainer will be responsible for monitoring the weather for any warnings of lightning strikes in the area. If lightning has been detected in the near vicinity coaches and game management staff will be notified and modifications will be made as needed.

If lightning strikes within 5 nautical miles of the athletics venue all activities will be suspended and all participants and spectators will be required to move to a shelter safe from danger of a lightning strike. Activities will not resume until 30 minutes after the last strike of lightning has been seen. For every lightning flash seen within 5 nautical miles the 30 minute wait time restarts.

The athletic trainer and game management staff have the full authority to make final decisions on suspending and resuming athletic activities.