

SUPPORT
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RIDER

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Equestrian Medical Safety Association

Prescription for Equestrian Safety

Formerly known as the American Medical Equestrian Association/Safe Riders Foundation (AMEA/SRF), the Equestrian Medical Safety Association (EMSA) is dedicated to the philosophy, principles and application of safety of people in equestrian activities. This purpose is achieved through education, research and resource.

MISSION STATEMENT

EDUCATION of health care professionals, organization representatives and individuals, including an emphasis on public awareness;

RESEARCH to better define injury patterns and risks, efficacy of safety measures and equipment, and assistance in equipment design;

A RESOURCE of experience and expertise to be shared and utilized for the benefit of equestrian safety.

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Stressing Safety in College Equine Programs

SUSAN TURCOTT WHITE

Delaware Valley College, located on 571 acres in the heart of Bucks County Pennsylvania, is home to about 1,600 students. Over 150 of these students participate in activities at the school's Equestrian Center as part of their course work or through clubs or activities.

Located on campus, the Equestrian Center consists of an indoor arena along with 52 stalls for school horses, tack and harness rooms, wash stalls, a carriage room, and student lockers. A 140' x 185' outdoor jumping ring, outdoor lunging areas, a round pen, and horse exerciser complete the facility. The Equestrian Center is the primary classroom for 90 Equine Studies students, in addition approximately 35 members of the Hunt Seat Equestrian Team, 20 members of the Dressage Team, and 10 members of the vaulting team members use the facility for weekly practices. The facility and horses are managed by a full-time stable manager who lives on the property and employs approximately 20 students part-time each semester.



Susy White (center) with students.

As is true of all the college's programs, the equine programs feature "learning by doing." Equine students are required to ride and work at the Equestrian Center as part of their course work with weekly and weekend assignments allocated at the beginning of each semester. This practical educational strategy is designed to prepare graduates for challenging careers in the equine industry.

All students enrolled in the Equine Studies Program must apply first to the college and then to the Equine Studies Program. Equine students must exhibit prior riding and handling experience through submission of an extensive questionnaire and video as well as a professional reference from a work or volunteer position in

the equine industry. The college is able to prepare for students by acquiring suitable horses to lease or by donation based upon the level of the riders. Additionally, the college provides all necessary equipment for the horses, including saddles, bridles, harnesses, carriages, and grooming equipment; this assures suitability and most importantly safety of equipment. Equipment is safety checked regularly and replaced or repaired as needed.

Accident prevention begins with safety education. New students entering the equine program are required to complete a five day on-campus orientation program designed to familiarize them with the

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Patricia Roberts

Letter from the President

Deborah F. Stanitski, M.D.
EMSA President

In order to continue the EMSA safety mission, funds are required for activities (such as legal opinions, newsletter layout, etc.) although there are no organizational salaried positions and all jobs are volunteer. I feel it is important to maintain access to the EMSA website which we continue to build upon. Now that the newsletter is paperless and not printed or mailed, our nominal \$20 membership fee is not required to obtain this information. Unlike some companies and organizations, the EMSA has no tangible "giveaways." As such, aside from a safety commitment, the reason for the EMSA membership is elusive. I have printed

cards with the EMSA logo, website, and contact information for membership donations. These cards can be requested from me (stanitsd@yahoo.com) and the check, new member's name and contact information should be sent to our treasurer, Ms. Jean Mullin, at the EMSA address (369 Montezuma Avenue, #342; Santa Fe, N.M. 87501).

The EMSA obtained permission from *The Horse Journal* to reproduce their article on safety vests. There was, however, an error in the article and I have been assured by Roy Burek (Charles Owens) that their safety vest IS ASTM approved. I attended an ImPACT webinar (web-based seminar) update in September. In summary, there

is nothing relevant new with regard to head injuries. Due to a number of telephone requests, a "first-aid kit" is now on our website consisting of low key items not requiring an EMT/Paramedic or an M.D.

The "Saddle Up for Safety" Program was initiated in Kentucky by the governor's wife, Jane Beshear, with corrections having been acknowledged *post facto* with regard to the EMSA's current name. Mrs. Beshear has also overseen production of the Horseback Riding Safety Brochure.

I attended the ASTM November Atlanta meeting, the subsequent ARIA meeting in Naples, Florida and our annual EMSA business meeting in conjunction with the USEA Convention in Reston, Virginia. The notable feature of the ASTM meeting was work presented by Swedish engineers on a "concussion" helmet. The ARIA meeting provided an excellent opportunity for small group discussions with speakers such as Roy Burek (Charles Owens), George Morris, and Denny Emerson.

The EMSA meeting in December was the initiation of the inclusion of an "open" session (not only BOD members) for discussion of any concerns. There was an excellent presentation of safety issues at one of the convention's meetings with updates on the 2009 USEA injury statistics and updates to the ongoing GPS speed study by John Staples and veterinary studies on pulmonary hemorrhage and cardiovascular issues. An absence of an update on human head injuries, which is now very prominent in the media, was suggested to the USEA CEO for the 2010 meeting.

Sincerely,
Debbie Stanitski



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Board of Directors Bios

Christine van Solinge



confidence to an emergency situation.

She has been an active instructor and partner with the American Heart Association (AHA), American Red Cross (ARC), Medic First Aid (MFA), American Safety Health Institute (ASHI) and Equestrian Medical Safety Association (EMSA).

She is currently regional faculty for the American Heart Association, and is a Master Trainer for Medic First Aid.

She has worked for Hospice as a director and set up programs for them.

She does first aid, CPR AED, and disaster training in assisted living Residential Care Facilities for the Elderly (RCFE)

Horses are an important part of her family life. She has been involved with the local chapter of Pony Club, helping young people learn leadership responsibilities.

BA in Social Work
RCFE Administrator Certificate

Chris is the owner of Safety 1st Seminars.

Safety 1st Seminars has been in the business of CPR, AED, first aid training and emergency preparedness training for over 16 years. <http://www.SafetyFirstSeminars.com>

Her mission is to provide the necessary tools for an individual to respond with skill and

College Equine Programs Stress Safety

Continued from page 1

stable routine. This program begins with a detailed stable tour and discussion of rules and dress code. Students are then expected to adhere to these rules and dress codes. Students not in compliance are asked to leave the Equestrian Center immediately. The rules and dress code (see side bar, page 7) require students to wear a helmet when mounted, gloves while handling horses outside of the stable area, keep hair tied back, and never use personal music devices when in the stable, just to name a few. Faculty and staff review all the rules and dress code requirements semi-annually to assure that they are updated and meeting the safety needs of the Equestrian Center. During the orientation students are taught everything from how to put on a halter to the emergency dismount. At the end of the orientation, students undergo a verbal examination. All students using the Equestrian Center for class or extracurricular activities are required to adhere to the rules and dress code, in most instances the coaches or instructors provide orientation activities.

Students are highly supervised. Students are never to be in the barn alone, there must always be at least two students and they must only be in the barn during designated hours, daily between 6:00 A.M. and 6:00 P.M. or when accompanied by a coach or instructor during special practices or class assignments. The barn manager's office is in the barn and he lives next to the Equestrian Center to provide immediate assistance and 24-hour access. Equine students in their first year are required to take a

practicum course in which they are evaluated and graded on stable management, including mucking stalls, handling horses, grooming and bandaging horses, and turning horses out for show.

The Delaware Valley College Equine Program adheres to strict standards for safety, instruction, and stable management. The Equestrian Center is an official British Horse Society (BHS) approved riding establishment and testing Center. The BHS is a leader among riding instructor certification systems and stable safety and management requirements. The BHS conducts site unannounced visits regularly to assure that the stables are in compliance with their guidelines for all areas, including stable management and safety. This includes reporting of accidents and follow-up after an accident.

Accidents do happen at the Delaware Valley College Equestrian Center and reassessment of policies, protocols, and standards is an essential component to assure that the highest safety standards are set. All accidents are reported using an "accident report form." Filled out accident report forms are filed in the office and shared with various offices on campus including the health center and campus security to assure appropriate follow-up care. As many accidents as possible are reported. Some accidents incur immediate injuries, others do not show immediate signs of injury, and certainly many injuries never require care by a health service provider. Reported accidents are discussed regularly among faculty and full-time staff. For example, if

a horse is involved in one- or multiple-rider falls, it must be determined whether the horse is too reactive to his environment to be used in a school horse setting; intentionally trying to remove riders from his back and thus needs an instructor to re-school him; or simply used primarily for weaker riders and thus has a higher chance of a rider falling due to the nature of the class being taught and the riders in the course. This important step allows for critical thinking about the situation and changes are often made to horse management, stable routines, or horse handling to decrease the likelihood of future accidents.

Delaware Valley College assures the safety of its students while at the Equestrian Center by admitting students with prior horse handling and riding experience, safety education of all students working in the Equestrian Center either for class, pay, or as a volunteers, posting and strict adherence to the dress codes and rules of the center, supervision and regular evaluation of students handling horses, and participation in an outside evaluation of safety, management, and instruction through membership in the British Horse Society. When accidents do happen there is immediate reaction by staff and faculty trained in First Aid and CPR as well as documentation of events on an accident report form. There is absolutely a need for college level equine programs, but they come with risk. Accidents will happen when people interact with horses and stable equipment, but it must be our goal to reduce these incidences and learn from every accident about ways future accidents can be avoided or the possibility of injury lessened.

Please see Dress Code and Editorial Comment on page 4

Susan Turcott White



Susy White and DVC schooling horse, Mika.

Susan (Susy) has had extensive academic, teaching, and equine experience. While at Michigan State, she completed undergraduate research in horse behavior and graduate research in equine nutrition. She also coached the Michigan State Hunt Seat, Western, and Dressage Equestrian Teams, was president of the Horseman's Association, a horsemanship instructor at the Michigan State University Equine Center, an undergraduate research supervisor, and a laboratory instructor for Introduction to Animal Agriculture courses. In addition she has published in local, regional, and national equine journals. Susy is currently a faculty member in the Equine Studies Program at Delaware Valley College, having served as Director of the program for four years. She enjoys teaching riding as well as lecture courses and recently introduced a new Equine Exercise Physiology Course at the College. Susan is active in professional activities on and off campus such as the United States Equestrian Federation and the United States Eventing Association.

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Editorial Comment: Equestrian Safety

Delaware Valley College has thorough safety and accident procedures in place. And certainly we all agree that risk is an inherent part of working with horses – a part we all want to minimize. Being inspected and certified by an outside organization in the industry is also very important for safety and quality control, so I applaud its British Horse Society site approval.

Some of Houghton College's safety policies and procedures that we find very effective are slightly different or in addition to those implemented at DVC. Here are a few of those differences (note: there are more strong similarities than differences!):

Certified Horsemanship Association – the Association for Horsemanship Safety and

Education has excellent industry standards for group riding programs and has site inspections for CHA site accreditation. The standards are applicable to hunt seat, dressage, eventing, western, driving and therapeutic equestrian/equine programs. Houghton College earned and maintains CHA site accreditation, and seeks to not only meet, but whenever possible, exceed the safety and management practices set forth by CHA in its book, "Standards for Group Riding Programs." Houghton College offers college courses in basic beginner riding (which do NOT count as credit towards an Equestrian Studies major or minor, but just are one option to fulfill a required P.E. activity course credit) through stable management, dressage, jumping, eventing, western riding, horse show judging, trail

riding, teaching riding (both English/European and western) and teaching riding to those with disabilities. Therefore, we find CHA's broader scope more appropriate for our setting than the British Horse Society's.

CHA offers riding instructor certification clinics with a process to be adapted to the college curriculum setting. Houghton College students who major or minor in Equestrian Studies are required to take the course "CHA Riding Instructor Certification" which ends in a CHA college clinic. Evaluation of the students is by an outside CHA clinician in conjunction with a college professor with CHA clinic staff rating. The outside clinician has the deciding vote in any difference of opinion, to avoid in-house partiality. Since CHA stresses safety first in all aspects of

teaching and handling horses, this course reinforces strongly all the teaching of safety that is an integral part of all equestrian classes at Houghton College. Students must earn CHA riding instructor certification prior to being allowed to work as Teaching Assistants for riding classes, assist in supervising Equestrian Club riding times (open practice and recreational riding times for current and past members of college equestrian classes) or teach community lessons. The opportunity to teach under professor supervision gives CHA certified college students the necessary practice in not only following, but teaching and enforcing safety practices and procedures. This helps build their commitment to safety, to "make it part of the marrow of their bones" so to speak!

Tack is inspected regularly by faculty and repaired or replaced as necessary. In addition, students are taught to do safety checks on all tack they use before mounting AND when cleaning every piece of tack used every time they use it. So the majority of Houghton College's tack is getting inspected one to three times per day. This helps ensure that potential problems are detected at the very onset. It is excellent training for college students who are future young professionals in the horse industry as well as instilling safety practices in those who will one day own their own horse(s) for pleasure.

In addition to following the accident reporting procedure outlined by Delaware Valley College, Houghton College practices "preventive maintenance"

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Delaware Valley College Equestrian Center DRESS CODE

Bracelets and single necklaces must be breakable and may only be worn under clothing. NO neckties, chains, rings (except engagement or wedding rings), drop earrings, or multiple earrings are to be worn while riding or working in the Equestrian Center.

Appropriate RIDING GLOVES must be worn while lunging and may be required for certain riding classes.

The use of WORK GLOVES is mandatory for turning horses either in or out of the stable to prevent possible "rope burns" from lead shanks, and it is suggested that they also be worn for protection while performing manual chores (i.e. cleaning stalls, sweeping, raking arena, stacking hay, moving jumps.)

A RIDING HELMET with strap fastened is to be worn at all times while riding or driving. The helmet must be ASTM and SEI approved and inspected by a DVC riding instructor.

RIDING BREECHES must be worn while riding. Chaps may be worn over britches during extremely cold weather (with instructor permission).

DRESS, FIELD BOOTS, or PADDOCK BOOTS WITH HALF CHAPS must be worn while riding. An appropriate WORKING BOOT is to be worn while working in the stable. Street or tennis shoes are **not acceptable**.

BELTS are to be worn with breeches and work clothes.

SHIRTS are to be tucked into breeches or work pants at all times. NO tank tops, bathing suit tops, jeans with holes, cut-off shorts, or short shorts are allowed. Collared shirts are recommended for both riding and work.

LONG HAIR is to be tied back at all times.

When jumping, a PROTECTIVE BODY VEST **must be worn** by any student with any pre-existing back condition(s) and by students jumping cross-country.

Students who violate the dress code will not be permitted in the stable.

If students are late or absent for a class, it will be unexcused.

Ed Comment

Continued from page 4

of the college lesson herd horses. We maintain a "Horse Use Book" to record each time a horse is ridden or driven. Each horse has its own page. Each time the horse is used, the rider or instructor is to record whether the use was in a college class, a clubtime ride, or a community lesson. The name of the rider is recorded, the name of the instructor or supervisor, a list of what work was done (for example: walk-trot only; or walk-trot-canter-jumping; or flying changes; etc.) and comments on the horse's performance and attitude. The book is checked periodically by the professors. If a horse is beginning to lose its enthusiasm, become grumpy, be too energetic, have difficulty with a particular skill, remedial work is done to restore the horse's confidence, skill, and willing attitude before it deteriorates very far at all. This makes for happier horses which are willing partners to the riders, and helps decrease the likelihood of an accident.

—JO-ANNE YOUNG

Jo-Anne Young is Director of Houghton College Equestrian Program. She teaches college credit courses in multiple disciplines including dressage, jumping, eventing, western riding, organizing and managing clinics and competitions, stable management, and equestrian pedagogy. She supervises riding instructors and stable workers, summer camp staff and others. She has her Masters of Arts in Equestrian Education. She has been a Certified Horsemanship Association Master Instructor and Master Clinic Instructor since 1987. She can be contacted at Joanne.Young@houghton.edu.



Question:

I am an equestrian and have a question regarding helmet safety. I presently ride in the winter and notice that the helmets made for snow sports (ASTM F2040) are warmer than those made for equestrian use. Do you have an opinion on the ability of a helmet made for snow sports to protect one involved in equestrian sports? Do you know how the ASTM standards for these two types of helmets compare?

Answer:

Although the Snow Sports standard was modeled on F1163 for Equestrian Protective Headgear, and there are several similarities, the main difference is in the impact surfaces. Equestrian tests on a flat anvil and a special equestrian hazard anvil which was designed to simulate the edge of a horseshoe and/or a jump standard. Ski helmets are not part of an independent certification program; equestrian is. That program includes product checks twice in the first year, and annually after that to be sure that what is being sold conforms to the standard. This is conducted by an outside quality control auditor. The manufacturer must also maintain a generous amount of liability insurance, and products found not to conform are subject to an immediate recall system overseen by the Consumer Products

Safety Commission and the Safety Equipment Institute. Ski helmet manufacturers can "self-certify" without oversight. The required warning labeling on the snow sports helmets limits their use to those sports and does not specify equestrian, so in the unlikely and unfortunate circumstance when someone is injured using a defective product there are potential problems with trying to sue the manufacturers.

I don't know where you live, but my home is in Upstate New York and we certainly get our share of cold weather. Many of our riders wear a warm ear band under the helmet; my personal preference is to suggest the biggest stretchiest wool

knit these in Aran patterns for friends...one just needs to know the perimeter of the individual helmet. Unisex and quite sporty !

—DRU MALAVASE
EMSA BOARD OF DIRECTORS

Hello Dru,

I appreciate you getting back to me regarding my helmet question. Given what you have said, I think I will stick to my certified equestrian helmets and find a way to keep my head warm. It was very kind of you to give me such detailed info. I

was unable to find this info in other places and it is exactly what I wanted.

*Thanks again.
J. O.*



ski cap I can find and put it on OVER the helmet down over the ears. This is much warmer to me than an ear band and doesn't disturb the fit of the helmet. In fact, I

National Electronic Injury Surveillance System

Thirty Years of Records

The first report on National Electronic Injury Surveillance System (NEISS) horse related injuries appeared in the *Chronicle of the Horse* in 1980¹. The first three years of NEISS stats, 1979, 1980 and 1981, appeared in the *Chronicle of the Horse* in 1982². These figures are used in this report to compare the NEISS figures of 2007³ and 2008⁴. The horse community found NEISS to be a useful source of information on horse related injuries.

The National Electronic Injury Surveillance System (NEISS)⁵ is part of the United States Consumer Product Safety Commission, National Injury Information Clearinghouse, and provides figures on horse related injuries that go to hospital emergency rooms throughout the nation. NEISS changes the base figures as indicated by opening of new hospital emergency rooms, closing of some hospital emergency rooms and changes in the caseload in other hospital emergency rooms. From these entries, the Consumer Product Safety Commission projects the figures for the nation in its annual report on horse related injuries.

NEISS has changed its base figures over thirty years. The number of horse related injuries in 1979 was 30,608. The figures from NEISS are projections and the larger number of incidents, the more accurate the figures will be. I have included three years projections in the first chart (1979, 1980, 1981). The total base number is still smaller than that of the last two years (2007, 2008).

In addition, the medical care in emergency rooms has changed greatly in thirty years. Emergency rooms provide much more comprehensive care today than thirty years ago. The minor injuries such as abrasions, bruises and small lacerations may be treated in first aid and urgent care facilities leaving the complicated fractures, concussions and internal injuries for admission to emergency rooms.

NEISS does not tell us the why of its figures and the horse community must determine the meaning of its reports.

BODY PART

Years	1979-81	2007-08
U Extremity	33.3%	36.4%
L Extremity	25.9%	20.2%
Trunk	20.6%	24.6%
Head	18.1%	16.1%
Neck	1.9%	2.5%
25-100% Body	0.2%	0.2%

The upper extremity has increased in its percent of injuries 3.1% while the lower extremity has decreased by 5.7%. Does this indicate that the horse community has not found means by which to decrease upper extremity injuries of the finger, hand, wrist, elbow, arm, forearm and shoulder while the wearing of improved boots with heels, stirrups and saddles have decreased the injuries of the lower extremity?

The trunk injuries increase of 4% is of concern as they are usually the more serious injuries of the chest, spine, pelvis and internal injuries.

One change may be indicated. Ongoing studies indicate

that equestrians are not involved in sport specific exercise programs like those available to athletes of other sport disciplines. They are neglecting personal balance and strength building programs placing the chief emphasis on training and practice for their horses. This fact may mean that falls from the horse which are the primary cause of injury have increased. Few equestrian programs have an exercise program for the rider, and fewer have a personal trainer to help the rider meet his/her individual needs and the demands of the sport.

Proper conditioning prevents accidents and injuries^{6,7}. We can reasonably extrapolate that if a lack of fitness increases falling from the horse, it will also increase the injuries from the fall. Emergency dismount exercises under proper supervision may be a way to decrease the injuries to the trunk and upper and lower extremities.

The decrease of head injuries of 2% is a welcome change and hopefully this is the result of education and increased use of protective head gear. The increase of neck injuries of 0.6% or 15% above the figures of 1979-1981 may also indicate that we have not found a way to protect the neck in equestrian accidents. This figure might be changed if exercises for the rider included strengthening the upper body, practicing falling under supervision to improve technique.⁸

It has been claimed by detractors of protective helmets that the helmets increase neck injuries. This has not been

shown to be valid and has been discounted as a reason for not wearing protective headgear. If it might be a cause, the head injuries have decreased 2% to the increase of neck injuries 0.6%.

TYPE OF INJURY

Years	79-81	07-08
Contusion/ Abrasions	39.0%	27.7%
Fracture	25.0%	28.4%
Strain/Sprain	16.2%	15.3%
Laceration	10.5%	5.4%
Concussion	3.6%	4.9%
Dislocation	2.2%	1.9%
Hematoma	1.2%	1.2%
Internal Injury	0.4%	8.6%
TOTAL	122494	151854

Contusions and abrasions have decreased 11.3%. These are now probably being treated in first aid and urgent care facilities rather than emergency rooms. The figures show that fractures have increased 3.4%. As percents are relative, this increase in percent may be that contusions and abrasions have decreased giving a percent increase in fractures.

Laceration decrease may be that these injuries are receiving increased care in urgent care facilities.

While it is believed that more riders are wearing protective headgear⁹, concussions have increased 1.3%. If in 1979-1981 head injuries were 18.1% and concussions were 3.6% one in five head injuries had concussions. If in 2007-2008 head injuries were 16.1% and

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University student shares PowerPoint presentation

Paige Silva wrote the EMSA: "I'm a student at Schreiner University in Kerrville, Texas. In my current Writing and Research class, we are to give PowerPoint presentations of studies, a brief overview of the information found in the study, stating what the researchers found through their work. I have been interested in the effectiveness of helmets in

equestrian riding. I wrote this program and presented this PowerPoint production from material obtained through the EMSA."

—PAIGE SILVA

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Paige sent a link to the PowerPoint presentation to the EMSA. Medical Editor Dr. Doris Bixby Hammett wrote Paige: "The presentation credited to Chad G. Ball, MD, Jill Ball, Andrew Kirkpatrick, MD, and Robert Mulloy, MD, is wonderfully effective. Thank you for using facts and statistics in the presentation." Paige agreed to

allow the EMSA to offer it to our readers.

One additional editorial comment should be added that the ASTM/SEI helmet should be replaced every five years.

Paige's PowerPoint link:
http://emsaonline.net/pdf/HelmetStudy_PaigeSilva.pdf

NEISS: Thirty Years of Records *Continued from page 9*

the concussions were 4.9%, a little over three of every ten (an increase of 50%) head injuries had a concussion. Medical understanding of brain injury has increased in the last 30 years. This fact has increased the diagnosis of concussion where it would have been missed earlier in time. Thirty years ago many concussions would be dismissed as "seeing stars" or a "ding". Now more head injuries are recognized as concussions with medical consequences. This gives a better understanding that although head injuries have decreased, the diagnosis of concussion has increased.

The greatest change seen is in the diagnosis of internal injury, which has increased 8.2%. Trunk injuries have increased 4% which would increase the internal injuries. However, medical diagnosis using improved radiological techniques, MRI and ultrasound have increased the diagnosis of internal injury.

In the laboratory the EXO body protector has been tested to show protection. However its limited appeal and non-tra-

ditional approach to protection has made it unpopular. It is not known if this body protector will allow the necessary movements and balance required, will be comfortable and allow the heat control and exchange needed, and decrease the injuries to the trunk when used by the equestrian¹⁰.

CONCLUSION

Safety in the horse activities has many facets. Most of the injuries seen in the emergency rooms are from recreational, non-supervised, non-organized activities. These figures may give the horse community specific areas to address. Head injury still constitutes the largest single area of concern, while the largest area in terms of potential for improvement is the torso with a 20% increase in injuries over 30 years.

Shows, clinics and events can be educational and provide role models but until the individual rider is convinced he/she must wear ASTM equestrian standard SEI certified, fitted and secured helmet every time

at every ride the figure for head injuries will not have great change. Further studies with body protectors must be done to give answers to their effectiveness. Equestrians must understand that injury prevention may be in their hands by their physical fitness and balance on the horse.

The organizations which show concern for the safety of the rider and caregiver are to be commended. Every organization should have a safety committee, keep records of incidents and injuries in their activities and allow these figures to be studied for trends and areas if any changes are indicated.

DORIS BIXBY-HAMMETT,
MD

Medical Editor, *EMSA News*
BOD EMSA Emeritus

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⁹ <http://emsaonline.net/NEISShead2.doc>

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Defining the “Return to Play” Rule and Recognizing Apparent Concussion

Equestrian Magazine
December/January Issue,
reprinted with permission
of the USEF.

In April 2009, the USEF “Return to Play” rule (GR1317) went into effect. Any competitor who sustains a possible concussion or loss of consciousness during a USEF competition must supply the USEF with medical release documentation. The competitor may not compete again until this documentation is submitted to the USEF Steward or TD (if released during the same competition as the accident) or to the USEF office.

What is a concussion?

A concussion is a type of traumatic brain injury. It may be caused by a direct blow to the head, face or neck, or a blow anywhere on the body with the resulting force transmitted to the head. Since a fall from a height of two to three feet has been shown to produce forces strong enough to cause a concussion, it is easy to understand why concussions are a common injury and are of great concern for all equestrian sport.

What are the signs and symptoms of concussion?

Typically concussions result in signs and symptoms which reflect disturbances in the function of the brain as opposed to structural damage or injury. This means that concussions often occur even when a CT or MRI shows no visible damage.

Signs of concussion can sometimes be detected by an observer. Such obvious signs include: loss of consciousness, unresponsiveness, convulsions, vomiting, and/or balance problems. Often the symptoms of concussion are more subtle, and may only be detected by the injured person. The symptoms may include one or more of the following:

- headache (especially a headache that gets worse)
- feeling “pressure in the head”
- neck pain
- dizziness, nausea or vomiting
- vision problems
- hearing problems (ringing)
- generally not “feeling right”
- confusion
- drowsiness, fatigue or low energy
- feeling overly emotional
- combative behavior
- depression
- nervousness
- difficulty concentrating
- impaired memory
- sensitivity to light or sound
- slurred speech
- trouble sleeping
- numbness/weakness in arms or legs

Resolution of the signs and symptoms typically follows a sequential course, with 80-90% of concussions resolving over the course of seven to 10 days. Though in some cases symptoms may persist for months.

What factors affect Return to Play decisions?

Each person reacts differently to concussions. In some a slight blow may cause serious symptoms while in others a harder blow may cause mild symptoms. Loss of consciousness is not experienced by the majority who suffer concussions and is not an indicator severity.

Scientific evidence now shows the effects of repeated concussion accumulate and can affect intelligence, emotions and thinking ability for years to come. Even mild concussions, suffered repeatedly though separated by months or years, can cause problems.

A second trauma to an already injured brain occurring before the symptoms of the first have resolved can result in serious permanent damage or even fatality (Second Impact Syndrome). It is crucial that the brain is given enough time to heal.

Many factors play a major role in determining the time needed to recover from a concussion. These factors include the severity of the current injury, how long the symptoms persist, whether there has been prolonged cognitive impairment, whether there are any contributing cognitive impairment, whether there are any contributing factors in the genetic or medical history, whether the competitor has sustained repeated concussions (if so, the number, severity and proximity to the current injury), whether repeated concussions

are occurring with progressively less impact force and the age of the competitor.

For these reasons, Return to Play decisions can only be made by a medical professional who can exercise clinical judgment on an individualized basis.

—BETH TAYLOR

Thanks for the contributions to this article by Drusilla Malavase, who is the current co-chairman and 25-year member of the ASTM Committee on Protective Equestrian Headgear, Chairman New York State Horse Council Safety Committee and Past Chair USPC Safety Committee.

Spring EMSA News deadline: April 28

If you wish to submit an article or
a news release for the Spring EMSA News,
please contact:

Doris Bixby Hammett, MD
Medical Editor
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before April 28, 2010

CORRECTION

Thanks to Kendall Church for calling our attention to an error in the article "Topics Being Considered at ASTM" by Dru Malavase in the Winter 2009 *EMSA News*, page 9.

The British EXO body protector is still available for sale both in the U.S. and abroad and has not been taken off the market as stated. The company which designed the body cage inside the EXO has gone out of business and has donated its patent to the British Riding for the Disabled Association. For a more complete discussion of

this development, go to <http://www.horseandhound.co.uk/news/397/267628.html>.

The EXO body protector is still listed as a Level 3 on the Approved List from the British Equestrian Trade Association, <http://www.beta-uk.org> under Gul International/Woof Wear.

I apologize for my misreading of the *Horse and Hound* article, which is very complete and presents an excellent discussion of the history of the protector.

—DRU MALAVASE



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