Game Changer? The helmet debate in girls’ lacrosse

By Dan Goldman, sports writer
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High school girls’ lacrosse is a unique sport. From the rules to the gear, the girls’ game differs greatly from what the boys play. One of the most noticeable differences is that the girls don’t wear helmets.

Many girls who play the game say they are opposed to donning helmets. Many coaches, too, say there are good reasons for foregoing headgear.

Even experts don’t believe helmets are necessarily going to prevent concussions.

Still, one local girl’s family has experienced the pain of a severe injury from playing the sport.

Meanwhile, the issue is one that is being debated nationwide as US Lacrosse is funding research to develop a standard for protective headgear designed for girls lacrosse. While soft headgear is optional for players under today’s rules, the national governing body of the sport is looking at a number of ways to make the game safer.

All those opposed...

The idea of wearing helmets isn’t a popular one among local high school girls’ lacrosse players.

Canandaigua senior Sydney Reber doesn’t think her sport needs helmets due to its style of play and rules.

“I feel like I would be more aggressive,” Reber said of her potential approach to playing with a helmet. “Knowing how we play now, I’m not trying to hurt anyone. If we had more padding and more protection with helmets and everything, the game would be a lot different and more aggressive.”

Palmyra-Macedon’s Jessica Locey and Waterloo’s Julia DePillo, who play on the Finger Lakes Flamingos club lacrosse team with Reber, both agreed that helmets don’t have a place in the girls game.

DePillo said she’s caught a stick to the face a couple times, but said it didn’t result in any serious injury. The midfielder said stick checks to the head occur because some girls haven’t been taught the rules well enough.
US Lacrosse made several rule changes prior to the 2012 season. Stick checks toward the body became fouls, and players couldn’t reach into “the sphere,” a 7-inch perimeter around players’ heads. A player receiving two yellow card penalties will be suspended from the rest of the game. Any check to the head is a mandatory yellow card.

Locey believes rule changes and good officiating are enough to keep the game safe.

Geneva High School coach Lindsey Breese, Waterloo coach Andy Lee and Brighton coach Rich Curtis are also against the idea of helmets.

“I think helmets would promote a rougher game, which would entail rule changes, equipment changes and we’d ultimately end up playing like the boys, and I don’t want to see it end up that way,” said Breese, who played lacrosse at Geneva and Ithaca College.

Curtis felt the rule changes were enforced well in 2013. He said yellow cards were given out early and players learned how to play within the rules. The Brighton coach said none of his players sustained a concussion this season.

In Waterloo, Lee coaches girls to stick check as a last resort and to swing down and away and not around a player’s head space when they need to try to dislodge the ball from an opponent’s stick.

In 15 years of coaching, Lee said, he’s had two players sustain concussions: one from a malicious check and the other from a ball that got lost in the sun and hit a girl in the head. The coach said more players suffered concussions when he coached basketball.

Two different games

While the boys and girls games both are called lacrosse, they are very different.

High school girls players need to wear a mouth guard and protective goggles. The goggles only became mandatory in 2005. Goalies may wear hard helmets, but close-fitting gloves and soft headgear are permitted for other players. In the boys game, players must wear mouth guards, hard helmets, arm pads, shoulder pads and heavy gloves.

Aggressive stick checking and body contact are allowed in the boys game, but are illegal in the girls game. Boys sticks feature a deeper pocket, which requires more aggressive checking to dislodge the ball. Girls sticks have a shallow pocket, making it easier to dislodge the ball.

The women’s game has been played without helmets since 1913. According to a 2008-09 study on sports-related injuries by the National Federation of State High School Associations, women’s lacrosse ranked fifth for head or face injuries behind soccer, basketball, softball and field hockey, and third for concussions behind soccer and basketball.

George Mason University researcher Shane Caswell studied video to take a closer look at head injuries in high school girls lacrosse. The study found that most head injuries resulted from stick-to-head contact during aggressive play near the goal at the varsity level. Researchers determined most of the head injuries resulted from unintentional stick contact, suggesting injuries may be an indirect consequence of play, in which
players position themselves in hazardous situations either purposefully or inadvertently.

The video from 529 varsity and junior varsity girls game in Fairfax County, Va., showed 25 game-related head injuries (21 concussions and four contusions) were diagnosed during the two-season time frame. Eleven of the incidents were diagnosed as concussions, and no penalty was called in 12 of the incidents.

US Lacrosse’s managing director of game administration Ann Kitt Carpenetti said eye injuries have disappeared from the game since goggles became mandatory equipment. She said the organization continues to talk about rules and equipment every year and that safety is just as important as the integrity of the game.

The New York State Public High School Athletic Association looked into making boys lacrosse helmets mandatory for girls players starting in 2012, but the proposal was defeated 7-2 in December 2010. Carpenetti said they don’t want to see select pockets or regions of the country using helmets.

“State associations were feeling the pressure to find a silver-bullet solution to prevent or protect athletes playing women’s lacrosse from injury,” she said. “I think a lot of that call is a result from those folks getting pressure from risk managers and also folks who are unaware that the women’s and men’s games are different.”

Carpenetti said US Lacrosse wanted to take a leadership role in the helmet issue, rather than let people less engaged take the lead.

**Researching the impact**

US Lacrosse went to the American Society for Testing and Materials to see how to help manufacturers come up with specifications for headgear for girls lacrosse. J.J. Trey Crisco, the Henry F. Lippitt Professor of Orthopaedics at Brown University, is providing ASTM with the necessary data to create a standard.

Standards already exist for boys lacrosse helmets, but there’s never been one for girls lacrosse. Crisco said the standard isn’t about design restrictions, but may include how much energy the helmet would need to absorb and how hard it would need to be.

Crisco coached girls lacrosse for his daughters and sits on US Lacrosse’s sports, safety and science committee. The professor has studied head impacts in sports such as football, hockey, and lacrosse by embedding accelerometers in the helmets of collegiate teams and gathering data from actual practices and competition.

Last year, Crisco conducted a study funded by US Lacrosse to measure the impact of stick checks to the head in girls lacrosse. He put a crash test dummy-like head on a spring to simulate a neck and invited girls to come and “whack the hell out of it.” Every lacrosse stick used in the study broke.

“They hit the top, side and back of the head form and measured the acceleration that occurred inside the head form,” Crisco said. “One piece of data we were able to get is stick speed and the acceleration of the head form. That gives us a ballpark estimate of what we expect from a severe impact.”
The professor said it’s impossible to answer the question, “should girls wear helmets,” from a biomechanical perspective.

**Not everyone is against it**

Stacie Kem thought about the fact that girls don’t wear helmets when her daughter Allie played lacrosse, but thought to herself, “She’ll be fine, nobody ever gets hurt.” She purchased the biggest goggles available and a pair of gloves to give her extra protection from injury.

However, the protective gear wasn’t enough when a ball hit a goal post and struck Allie in the forehead on Sept. 25, 2011. The 12-year-old suffered a severe concussion that took her out of school for half a year.

“Walk a minute in our shoes, live through what we went through and you’ll be talking a different story,” Stacie said. “So many have said, ‘She’s just one girl in Victor.’ After everything we’ve gone through, what she’s going through and what she will go through in her life, that helmet would have made a world of difference. Would she still have gotten injured? I don’t know. It would’ve decreased her injury or stopped it altogether.”

While Allie, now 14, will never play lacrosse or other contact sports again, she is more committed to dancing. She also volunteers for the Brain Injury Association of New York State and gives out bike helmets at events.

Allie said she never worried about not wearing a helmet because it was normal. She now supports the use of helmets in girls lacrosse.

“I know a lot of people argue that if girls did wear helmets for lacrosse it would allow more aggressive play,” she said. “I think if all the rules stayed the same, but girls wore helmets, that would be good.”

Marcus Whitman and Flamingos coach Donovan Lopez is torn on which side to take.

“I get the tradition of the game, I like them not wearing helmets,” he said. “But, I’m fearful that someone is going to get killed. It’s not going to be from a stick, it’s going to be from a ball.”

Lopez measured the shot velocity of Flamingos last year, and the fastest balls reached 58 miles per hour. He said there could be girls out there pushing 80 miles per hour.

Dr. Mark Mirabelli, an assistant professor at the University of Rochester Medical Center’s departments of Orthopaedics and Family Medicine, said there are no studies showing helmets can prevent concussions. He also said there is the possibility of more injuries occurring with helmets if girls play like they’re invincible.

“On the other hand, you kind of have to weigh the risk of catastrophic head injuries like skull fractures that could possibly kill someone, and losing teeth or cuts to the face,” said Mirabelli, who is the team physician for the Rochester Knighthawks, Rochester Rattlers, St. John Fisher College and Rochester Institute of Technology. “I think if you’re putting helmets on girls to prevent those injuries, you’ll accomplish something. If you’re putting on helmets to prevent concussion, that’s where the problem is going to be.”
Mirabelli said he supports the idea of helmets for girls lacrosse and would favor a hard helmet like the boys use.

**What’s next?**

Crisco has presented his research data to US Lacrosse and ASTM. The organizations asked Crisco to repeat the study with equipment on the head form, such as boys lacrosse helmets and rugby headgear.

Even if a standard is developed, Crisco said, it’s up to US Lacrosse whether helmets become required equipment. Carpenetti said there are no plans to change any rules at this point.

US Lacrosse is also developing a reduced-impact low compression ball that could prevent injuries.

Carpenetti said there’s no research suggesting that adding a helmet would address head injuries overnight. She said the best way to keep the game safe is to rely on enforcement of rules and proper instruction by educating officials, coaches and players.