

# Saving Sight in Sports

BY DR. TOM PASHBY

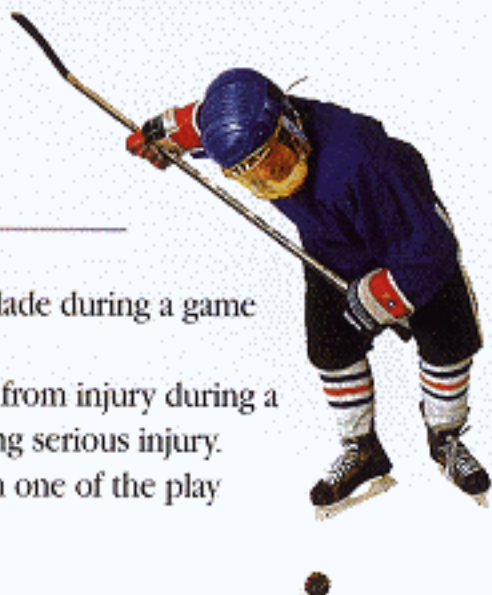


In co-operation with CSA Group

# Playing with risk

---

- An adult hockey player falls onto an opponent's skate blade during a game and is not wearing a face mask and loses an eye.
- A woman assumes her ordinary glasses will protect her from injury during a squash game and the ball shatters one of her lens causing serious injury.
- A war game turns tragic when a gelatin pellet fired from one of the play guns hits a player in the eye.



Sports of all kinds carry a risk of serious eye injury or blindness, but with proper protection, virtually all sports eye injuries are preventable. In fact, it's estimated that 90% of these injuries could be prevented by using the right equipment.

## The facts

---

Dr. Tom Pashby has worked to protect athletes from eye injuries for 30 years. His statistics show there have been 4,638 sports related eye injuries, including 535 blinded eyes, in Canada since 1972.

Dr. Pashby's statistics also reveal the following:

- Ice hockey accounts for 33% of all eye injuries
- Racquet sports are the second most common cause of eye injuries at 28%
- Baseball accounts for about 12%
- War games, which are relatively new, have resulted in 80 eye injuries, including 33 blindings (The injured players were not wearing the eye protectors provided)

Hockey-related eye injuries clearly show that wearing protective equipment works. For example, in the 1974 - 1975 season, before minor hockey players were required to wear face masks, there were 258 eye injuries, including 43 blinded eyes. In the 2001 - 2002 season, only 4 eye injuries, including 2 blinded eyes were reported. Not one of the 311 blinded eyes since 1972 has been suffered by a player wearing a CSA Certified full-face protector. However, 9 players have suffered a blinding injury wearing certified visors (half shields). In each case, it is suspected the players did not have their visors properly positioned. Helmets need to be secured to the head by a taut chin cup rather than a loose neck strap.

## Focus on amateur athletes

---

While we know how to prevent eye injuries, not everyone involved in sports wants help. Some professional players are reluctant to wear proper protective gear because they feel head and face protection is restrictive and could interfere with their performance.

Professionals accept the risks involved and understand that a serious eye injury could possibly affect their playing career. A recreational sports player may not understand the risks and it is these individuals we must protect.



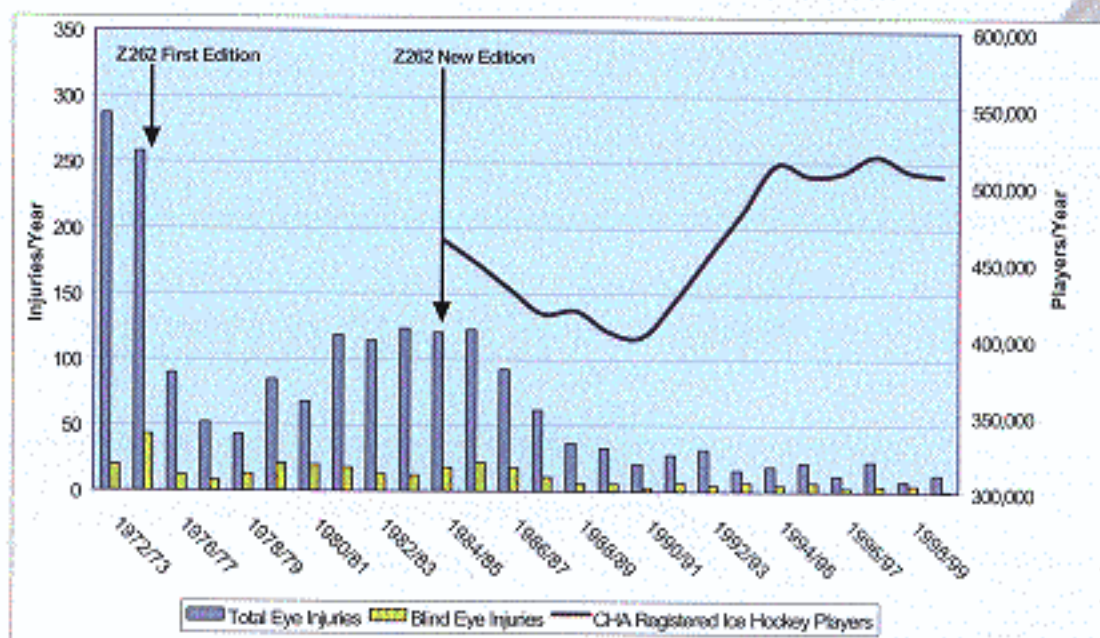
# Up to standard

Developing standards for protective sports equipment takes time and resources. As a result, the need for a particular standard must be proven at the outset. The next step is to form a balanced development committee, comprised of representatives from various sectors, including manufacturing, the medical profession and people who actually use the products.

Prototype products are then evaluated to help establish the minimum safety criteria to be included in the standard. CSA standards are voluntarily adopted or required by law. Federal, provincial and municipal governments often incorporate standards into legislation that require products to be certified before they can be sold. This is the case with hockey helmets in Canada.

Established standards can have a major impact on sports organizations when they set their internal regulations and manufacturers when they produce products. A ruling by the Canadian Hockey Association (CHA), the governing body of amateur hockey in Canada, in the 1970s illustrates this point. The CHA ruled that minor league players in its jurisdiction had to wear a CSA Certified helmet and face mask. This has prompted manufacturers in the field to submit their products for testing. If their equipment meets all the requirements of the applicable standard, they are granted a license to use the CSA Mark on their products.

Once there are products on the market that have been tested and certified to recognized standards, coaches, referees and sports organizations can play an important role in ensuring the equipment is worn. Requiring young players to wear proper head and eye protection has led to wider use in professional leagues. In fact, all professional hockey players who learned their skills wearing helmets, still wear them today.



**CSA standards help reduce ice hockey-related eye injuries.**

# We need your help

In the early 1980s, the International Organization for Standardization (ISO) formed a subcommittee to establish ISO standards for ice hockey players, face protectors and visors. In 1996, the subcommittee published standards on Protective Helmets for Ice Hockey Players (ISO 10256) and Face Protectors and Visors for Ice Hockey Players (ISO 10257). In early 2003, the subcommittee is scheduled to publish a new edition of ISO/EN 10256, which combines the requirements of ISO 10256 and ISO 10257 and those of EN 967.

# COS Survey – Eye Injuries in Canadian Sports

(Blinded eyes statistics in brackets)

Sport	1972-1975	1976-1977	1977-1978	1978-1979	1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2001-2002	TOTAL
Hockey	545(63)	90(12)	52(8)	43(13)	85(21)	68(20)	119(18)	115(13)	124(12)	121(18)	123(22)	93(18)	62(11)	37(8)	33(6)	21(3)	28(7)	32(5)	16(7)	19(5)	22(7)	12(3)	23(4)	8(5)	13(1)	4(2)	1914(311)
Racquet sports		43(3)	12(1)	28(1)	58(1)	103(4)	100(3)	88(5)	115(6)	81(6)	83(1)	66(3)	45(4)	62(3)	40(2)	35(1)	33	31(1)	27	14(1)	17	18(1)	12	5	11	1	1135(47)
Baseball		19(2)	2	2	10	15	41(5)	68(3)	56(3)	43(2)	32(3)	34	16	24(2)	15(1)	14(1)	18(1)	17(1)	23(2)	17(2)	11(2)	13(1)	10	5(1)	4		513(33)
Ball hockey		24(3)	8	9(2)	27(2)	22(4)	10(2)	19(3)	25(2)	29(1)	28	18(1)	31	24(1)	14(1)	20(2)	12(2)	16(2)	11(3)	7	4	13(1)	7	8(2)	5		397(35)
Football		13(1)	2	3	1	8	4	27(1)	22(1)	15(1)	10	20(1)	12(1)	10(1)	8	6	6	3(1)	5(1)	4	2	8	2	5	1	4(1)	202(10)
War games										26(14)	8(2)	9(1)	2	6(4)	4(2)	4	3(2)	1(1)	3(3)	2(1)	3(1)	4(1)	1	1(1)	1	2	80(33)
Golf		5(1)		1	1		5(4)	7(2)	3(2)	4(1)	5(2)	4(1)	1	3	5(1)	4	4(1)	1(1)	2	1	1	4(3)	3(1)	1			65(20)
Basketball			1			2	4	3	5	1	2	7		2	2	2	2	4(1)	5	1	2	3	3(1)			1	52(2)
Skiing		1(1)	1	3(2)			3(2)		2(1)	4	2(1)	6(1)	1		4	3(1)	1	2		3(1)	1	2(1)	1				40(11)
Volleyball		3(3)			6	3	2	3	4(1)		2			3		1						1			1		29(4)
Broomball		2(2)			2	2	3	3	2		1	4	3	1	2												25(2)
Lacrosse		3	1	1				3	4	1	1				1	2		1			1						20
Hunting & BB guns						4(1)			1	5(2)	1			3(1)		1	1					3			1(1)		20(5)
Snowmobiling		2(1)		1			1(1)		1	1	2(1)	1(1)	1(1)		1								4(1)		2		17(6)
Other		6		1	7	3	6(1)	6(1)	9(2)	19(2)	7(1)	5(1)	9(3)	7(1)	6(2)	5	8(1)	2	3		2(1)	4	9	1	2(1)		128(17)
Total	545(63)	211(29)	79(9)	92(18)	197(24)	230(29)	298(36)	342(28)	373(30)	350(47)	307(33)	267(28)	183(20)	182(19)	135(16)	118(8)	116(14)	110(13)	95(16)	68(10)	66(11)	85(11)	75(7)	36(9)	40(3)	12(3)	4638(535)

## Eye injuries by Country

COUNTRY	SPORT CAUSING MOST EYE INJURIES
Australia	Cricket
Canada	Hockey
England	Squash
Holland	Soccer
Ireland	Hurling
Japan	Baseball
New Zealand	Squash
Portugal	Soccer
Switzerland	Hockey
Sweden	Hockey
U.S.A.	Basketball
The Far East	Badminton

**SEND  
INJURY  
REPORTS  
TO:**

**DAVID WONG**  
St. Michael's Health Centre  
61 Queen St. East  
Suite 801  
Toronto, ON M5C 2T2  
Canada  
Tel: 416-867-3670  
Fax: 416-867-3743  
Email: wongd@smh.toronto.on.ca

However, there is a continuing need for international standards for all sports. The objective of the International Ergophthalmological Society (SEI) Sports Safety Committee is to gather enough evidence of eye injuries in all sports to determine the need for global standards. To do this, we need a worldwide reporting system. This is where you can help.

## You can make a difference

When you hear of an eye injury caused by playing any sport in any country, you can help us keep track of statistics on a worldwide basis by filling out the questionnaire on the next page. Only with this kind of documentation will we be able to rally the forces of SEI, ISO, the International Federation for Sports Medicine and other world bodies to develop international standards for sports of all kinds.



## Dr. Tom Pashby

*Dr. Tom Pashby's name is synonymous with safety throughout the sports world. He has been actively involved in sports eye protection through his work on CSA standards committees and other activities for 35 years. His particular interest in protection for hockey players dates back over 40 years when his elder son received a serious head injury during a hockey game. Through Dr. Pashby's efforts, it's mandatory for minor amateur hockey players to wear helmets and face protectors, thus reducing death and lost eyesight among Canada's hockey playing youth. He has received the Order of Canada and has been inducted into*

*Canada's Sports Hall of Fame for his work in this area and has now turned his experience, influence and drive towards eliminating other catastrophic sports injuries. In 2002, he was instrumental in having a no "head checking" rule included in the Canadian Hockey Association (CHA), USA Hockey and International Ice Hockey Federation (IIHF) rulebooks.*



Published by CSA Group. Permission is granted to reprint articles as published with appropriate credit to CSA Group.

CSA Group is an independent, not-for-profit membership organization serving business, industry, government and consumers. CSA Group consists of three divisions: the Canadian Standards Association which develops standards and helps people understand and apply them through information products and seminars; CSA International which provides testing and certification services for electrical, mechanical, plumbing, gas and a variety of other products; and QMI, North America's leading registrar, which delivers client-focussed management systems registration and training services.

For more information about CSA, visit our Web site at [www.csagroup.org](http://www.csagroup.org), call us at 416-747-4000 (Toronto area) or toll free at 1-800-463-6727

® Registered trade-mark of Canadian Standards Association