

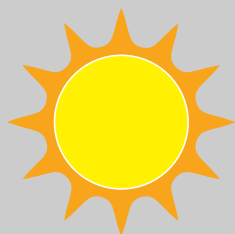


INSTITUTE UPDATE

Prevention Continues:
Safety the Goal!

Volume 7 • Number 2

July 2003



Projected Summer Sports Injury Statistics (2001 Statistics)

Basketball	– 653,661
Football	– 414,607
Softball/Baseball	– 301,116
Soccer	– 175,470
Trampolines	– 91,870
Inline Skating	– 69,174
4 Wheel ATV's	– 111,700
Playground Climbing	– 87,444
Skateboarding	– 56,671
Golf	– 46,089
Tennis	– 24,885
Diving	– 11,196
Lacrosse	– 8,383
Field Hockey	– ?

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Dehydration/Heat Stroke Prevention

Due to numerous tragedies from throughout the country as it relates to heat stroke, it is imperative that we as parents become focused on preventing this completely preventable, yet tragic, scenario. Just in the past several weeks a high school student in Indiana died of heat exhaustion, as did a college football player at the University of Florida, as did a professional football player with the Minnesota Vikings. In the last six years 23 student athletes have succumbed to this problem. Some very logical and easily implemented guidelines could completely alleviate fatalities related to heat stroke. As immediate past chairman of the Sports Injury Advisory Group to the Governor of the State of Michigan, Mr. John Engler, our group developed a number of recommendations as it relates to football - but could be easily applied to every sport and recreational activity.

These recommendations include:

- 1.) Acclimatize to heat gradually. The early practices such as the first 7-10 days should be shorter and less intense, as should practices on abnormally hot or humid days. In addition athletes should be encouraged to initiate their own conditioning program several months prior to the beginning of the season. During the hottest weather practice sessions should be scheduled in cooler parts of the day.
- 2.) Both the temperature and relative humidity should be taken into account in determining the length of practice sessions. It has been suggested that if the sum of the temperature and relative humidity are greater than or equal to 160, precautions must be taken. If the sum is greater than 180, practice and or games should be cancelled.
- 3.) Adjust the activity level and provide frequent rest periods during hot weather. Rest should be accomplished in shaded areas, helmets removed, and jerseys should be loosened or removed. In addition, rest periods should consist of 15 minutes each hour of workout.
- 4.) Cold water should be available in unlimited quantities to players. Scheduled water breaks should be strictly enforced.
- 5.) Salt should be replaced through salting of food, not salt tablets.
- 6.) Athletes should be weighed before and after each practice to monitor water loss. Weight loss greater than 3% indicates a substantial risk and 5% a significant danger to the student athlete.
- 7.) During practice athletes should wear cooling clothing such as shorts and fish net jerseys. Sweat saturated t-shirts should be changed often because they do retain heat. Helmets should only be used sparingly in hot weather.
- 8.) Parental involvement, such as observing practices, should be done on a rotating basis between all the parents of the student athletes. A monitor for practices, as well as game situations, can only lead to potential alleviating this ultra tragic scenario of heat illness.



continued on page 3

Greetings!

All of us at The Institute for Preventative Sports Medicine hope you are enjoying the winter months. Remember to play it safe by continuing your conditioning program throughout the year.

THE AWAKENING of a SURGEON

One Doctor's Journey
to Fight the System
& Empower Your Community

DAVID H. JANDA, MD

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on Sports Safety

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David H. Janda, M.D.
Director

Research Update

The Institute for Preventative Sports Medicine, led by members of our Board of Directors and Advisory Council has continued to work on the forefront of injury prevention and healthcare cost containment related issues. We have had two recent studies submitted for publication. The first authored by Dr. Andrew McIntosh and Dr. David Janda entitled: *Cricket Helmet Impact Performance* was recently published in the British Journal of Sports Medicine. In this analysis we utilized some of the techniques we have developed with baseball helmet and hockey helmet impact testing in our laboratory. We applied these very strict criteria to the current cricket helmets that are on the market and compared them to hockey, as well as, baseball helmets. It should be noted that millions of individuals are involved in cricket on a worldwide basis. In addition, a large number of participants are sustaining significant head impact injuries. The purpose of this study was to evaluate the current standards that are used for cricket helmets and to discuss alternatives for improved headgear. It should be noted that we did conclude that the standards, both in Australia and in Britain, are lacking in relation to injury prevention capabilities. It is great that all helmets pass a standard, however; if individuals continue to sustain very severe injuries those standards are obviously fraught with failure. In this study we identify an improved impact technique in order to assess helmets in the sports world including cricket. In addition, in the study we do make recommendations as to what would be needed to provide a safer helmet structure for participants in all sports.

The second study that was authored, *The Prevention of Baseball and Softball Injuries*, by Dr. David H. Janda, was published in the Clinical Orthopedics and Related Research Journal. This is an overview of the Institute's research over the years. We highlight the utilization of break-away bases, training and conditioning techniques as well as the use of defibrillators (AED's) to reduce the number one reason

for children dying in sport, that being chest impact fatalities.

Dr. Tom Pashby, who has been on the Board of Directors of the Institute since its inception, is the leading investigator and prevention spokesperson for the sport of hockey in the world. Tom is responsible for the near complete elimination of blinding eye injuries in the sport of hockey, as well as racquet sports. Tom has now gone on the offensive and is trying to eliminate the escalating issue of concussions in the sport of hockey. As Tom has eloquently outlined, concussions initially averaged 4% of reported injuries in hockey in 1996 and that number has drastically escalated to 17% in 2001. Tom has been on the offensive on both the professional and amateur ranks of instituting a **no head check rule in all of hockey at all levels**. The Institute has gone on record as supporting this recommendation. I am pleased to report that through Tom's efforts, perseverance and dedication, rule changes are taking place in relation to head checking by USA Hockey, IIHF, and the Canadian Hockey Association. It should be noted to date however, that the NHL has not stepped forward with a rule of its own, other than increasing severe penalties and suspension due to head checking. Needless to say, the story is not over, thousands of individuals are put at risk for head and neck injury unnecessarily. The Institute is fortunate to gain the support of thousands of parents over the years. I would like to introduce you to Dr. Janet Zimmerman, who is a Ph.D. in Public Health, but more importantly, is a parent of a youth hockey participant. She has authored an eloquent essay on making injury prevention in youth hockey a priority. Needless to say, if the points outlined in her presentation are implemented, thousands of unnecessary injuries and potential fatalities will be prevented every year throughout the world. The Institute will join forces with Dr. Zimmerman in this all to neglected issue of preventable violence in sport.

(See Dr. Zimmerman's article on page 4)

Preventing Summer Sports Injuries

continued from page 1

9.) It should be noted that some athletes are more susceptible to heat illness. Identify and observe closely those at greatest risk of heat illness, including those that are poorly conditioned, overweight, have an acute illness, have cystic fibrosis, diabetes, or mental retardation. In addition, student athletes that have a previous history of heat illness should be watched closely during practices and hot weather.

10.) It is imperative that all coaches, parents, and players be on the lookout for this all to common scenario and with the signs of fatigue, lethargy, inattention, stupor, and/or awkwardness the athlete be immediately removed from participation, cooled down and placed in a shaded environment.

With implementation of the above ten steps, I believe the entirety of heat illness would be eliminated. However, it is mandatory that parents become more activists in their student athletes practices and games to make sure that the fatality scenario that we have just seen in the past several weeks in Indiana, Florida, and Minnesota do not occur in our own backyards.



Media Coverage: The Future

Dr. Janda and the Institute are very proud that Public Television has come to the forefront at delivering the Institute's message to the public's doorstep. In addition to Mr. Alan Alda's show, Scientific American Frontiers, which was broadcast on Public Television, they have also produced a show at the Atlanta affiliate, WPBA entitled: *The Power of Prevention: Making Your Family Safer*. The show has now been completed and the distribution arm for Public Television, the American Public Television, has made the decision to distribute the show nationally to all Public Television affiliates. The distribution will occur in August and air dates will start approximately in December of 2003. This show will air over the next several years. Hopefully, on every television market in our country. The show is scheduled to be syndicated in the telethon series format in the months of December, March, June and August over the next 2 years. The book, *The Awakening of a Surgeon*, is featured, as well as, the Institute's work in the show. Mr. David Brandon, CEO of Domino's Pizza, has graciously stepped up to the plate and has made Domino's the corporate sponsor of this very important public television presentation. The purpose of this show is to make families safer across the United States by delivering the information that we have developed at the Institute and in the book, *The Awakening of a Surgeon*. Please call your local Public Television Station and make them aware that this show exists and that it is imperative that it be shown in your community as soon as possible.



Media Coverage Since Our Last Update

Since our last update, the following organizations have featured The Institute's research:

Radio Presentations:

WCSZ Radio ~ Greenville, SC
National Public Radio
WFNT ~ Lansing, MI
KNOT ~ Prescott, AZ
WHPT ~ Stephens Point, WI
KOHQ Radio ~ Seattle, WA
Langer Broadcasting ~ Framingham, MA
distributed to 50 radio stations nationwide
KBON ~ Bimidi, MN
WKQI Radio ~ Detroit, MI
WNIC Radio ~ Detroit, MI
WLLC Radio ~ Detroit, MI
WROK Radio ~ Rockford, IL
WJMS Radio ~ Ironwood, MI
KCTU Radio ~ Wichita, KS
KBRK Radio ~ Brookings, SD
KORN Radio ~ Mitchell, SD
ABC Radio Network
WDD Radio ~ Marion, IL
KAT Radio ~ Albert Lee, MN
WSPT Radio ~ Stephens Point, WI
WSEV Radio ~ Knoxville, TN
WMIX Radio ~ Knoxville, TN
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WNCO Radio ~ Ashland, OH
WKBN Radio ~ Youngstown, OH
WKVS Radio ~ Toledo, OH
KWUF Radio ~ Pogos Springs, CO
WEGP Radio ~ Caribou, ME
KCTU Radio ~ Wichita, KS
WUPS Radio ~ Mount Pleasant, MI
WBTA Radio ~ Batavia, NY
WLEA Radio ~ Hornell, NY
WCK Radio ~ Hornell, NY
WFHG Radio ~ Bristol, VA
WFRL Radio ~ Freeport, IL
WDVR Radio ~ Sergeantsville, NJ

Television Presentations:

PBS-WPBA ~ Atlanta, GA
The Power of Prevention; Making your Family Safer.

HBO Real Sports with Bryan Gumbell:
Head Impact injuries in soccer.

CNN - Live From the Front Lines with
Paula Zahn : *Chest Impact Injuries and Fatalities in Children.*

Institute's Featured Presentations

Members of the Board of Directors and Advisory Council at the Institute for Preventative Sports Medicine have continued to present information throughout North America, as well as, on an International basis on injury prevention and health care cost containment approach. Feature presentations on the Institute and on prevention have been given at the National Safety Council Annual Meeting in Omaha, NB, the American Academy of Orthopedic Surgeon's Annual Meeting in New Orleans, LA. In addition, the Institute's preventive approach has been featured in the University of Michigan Alumni Magazine, Orthopedics Today, and a feature article written by Dr. Janda in the May issue of USA Today Magazine. In addition, The Institute for Preventative Sports Medicine, as well as, Dr. Janda, were featured on HBO with Brian Gumbel. The show delved into the issue of heading in soccer and the number one stealth injury in sport, that being repetitive concussions due to heading. In addition, the Institute was also featured on CNN with Paula Zahn. Her show, Live From the Front, focused on chest impact fatalities in children. Ms. Zahn featured the Institute's research as it relates to the utilization of defibrillators (AED's) to drastically reduce the number one cause for children dying in sport. The Institute's work has also been featured on two websites: Momsteam.com, as well as, HealthAtoZ.com. The Institutes research was also featured on PBS, on Scientific American Frontiers with Alan Alda, as well as, Scientific American Frontier's website. If you visit our website at www.ipsm.org, you can directly link to Scientific American Frontier's website which feature the Institute's work as well as the book: *The Awakening of a Surgeon*. In addition, you can link to The Oprah Winfrey site which features the Institutes work, as well as, the book and you can link to KFI Radio in L.A. KFI is the largest radio station on the west coast and Mr. Bill Handel featured the Institute's work on his show, as well as, on his website.

Reducing Injuries in Youth Ice Hockey: If There's a Will, There are Many Ways

By Janet Zimmerman, Ph.D. in public health and youth hockey parent

In a state championship game, a player suffered a head injury when an opponent pushed the player's feet out from under her during a fast breakaway, sending her flying up in the air. The player fell flat on her back and hit her head hard on the ice as she landed. The player showed signs of having a concussion. The game had to be stopped, the parents were called from the stands, and she had to be led off the ice. This player is 10 years old.

At a recent playoff game, a player, whose coach calls out to the team, "Get physical!", pushed an opposing player into the boards with a force sufficient to crack the player's helmet, knock her down, stop the game, and cause her to suffer headaches and nausea throughout the night. The player, age 11, wasn't near the puck at the time she was pushed, and there was no call by the referees on the play.

These injuries occurred in girl's hockey, where aggressive body contact isn't allowed. One would hope that instances such as these are rarities, but as anyone who spends time in amateur hockey knows, they are not. An increasing body of evidence paints an alarming picture of injuries sustained by youth ice hockey players. Much of the recent work in this area has been conducted in Canada. Although the styles of play may differ between U.S. and Canadian youth hockey players, the basic rules of the game are the same. Studies such as the following send out a word of warning to us all:

- A recent study in British Columbia found that among 440 players age 15-20, 63% of them had suffered at least one head injury, and 111 of them actually lost consciousness at some point in their career while playing minor hockey. The leading cause of concussion, whether or not the player lost consciousness, was a player's head striking the boards, including the end glass. A \$1.3 million study is underway at Simon Fraser University in British Columbia to explore concussions and mild head injuries in youth hockey players and the impact of these injuries on the lives of children and youth.
- The incidence of concussions in hockey is on the rise: whereas concussions accounted for 4% of reported injuries in hockey in 1996 in the U.S., the percentage increased to 17% in 2001. The actual frequency of concussions is likely to be much higher, given that these figures include only reported cases.
- In a comprehensive study of violence in youth hockey, 44% of 212 youth hockey players surveyed indicated that they had been injured from rough play (e.g., fighting, high sticking, checking from behind), sustaining injuries ranging from concussions and neck injuries, to slashed wrists and ankles. Sixteen percent indicated that they

wanted to stop playing hockey or get off the ice because the game got too rough. Seventeen percent indicated their parents have urged them to leave hockey because of rough play.

Clearly, some level of injury is inevitable, as hockey is a fast-paced, nonstop action contact sport and mistakes are made. But injury that results from dangerous and illegal plays can be avoided by establishing a climate in which all players, coaches, parents, and referees agree to strictly support the rules of the game rather than to tolerate (and sometimes even encourage) rule violations. What follows is a range of approaches discussed in the field and in the sports medicine literature for making hockey safer for kids to play. Some strategies are easier to implement than others. The payoff of making progress on any of them, though, would be enormous if our kids could play the sport they love so well with a reduced likelihood that they will be injured as a result.

Referees/ Referee Associations

Achieve greater consistency in enforcing the rules. Increasing the consistency of rule enforcement among referees is perhaps one of the most vexing but important challenges in reducing injurious plays and increasing safety in youth ice hockey. It clearly is extremely difficult for two referees to see all plays on the ice and to make precise judgments given the split second timing under which decisions need to be made. As any hockey parent or coach knows, referees do not penalize all rule violations. In a study of emergency room visits among youth aged 7-18 for injuries related to ice hockey, for example, penalties were assigned on only 3 (4%) of the 85 plays that caused them to be injured. Injured players judged 40% of these plays to be illegal, and 85% of these "illegal" plays to be "injury potential" infractions, as identified by USA Hockey. USA Hockey recommends that all

"An increasing body of evidence paints an alarming picture of injuries sustained by youth ice hockey players."

violations with an injury potential be penalized: examples include boarding, charging, checking from behind, cross-checking, elbow/kneeing, high sticking, roughing, and slashing, among others. *Without consistent penalties for breaking the rules, the rules lose their meaning and players are freer to break them.*

Several approaches can be pursued for improving the consistency of officiating and increasing the likelihood that all dangerous plays will be penalized:

- Tighten certification requirement to demand more stringent testing on rule interpretation and enforcement before certification or re-certification is granted.
- Enhance continuing training requirements aimed at reducing variations in officiating, especially for dangerous plays and rule violations against players who do not have the puck.
- Significantly increase oversight and monitoring of referees' performance (e.g., videotape games to enable expert panels to review problem areas and to devise corrective actions; have unannounced monitoring of referees' performance during games by expert judges; make detailed feedback/complaint forms more readily available in all rinks).
- Increase accountability of referees and severity of consequences for persistent problems with performance.
- Require that higher-level referees officiate younger as well as older youth games.

Increase use of preventive officiating techniques

- Require all referees to remind players before games (and during them, if necessary) that injury potential penalties (to be listed) will not be tolerated and will be severely penalized.
- Establish early in the game that rule violations will be penalized.
- Require all referees to remind players in non-checking leagues on the limits of what is acceptable and what types of body contact will be penalized.
- Develop and widely distribute posters, pamphlets and other educational materials to publicize a "no tolerance" policy for injury potential plays.

Amateur Hockey Associations

Set safety in youth ice hockey as a high priority

- Establish state and local level task forces to devise strategies for improving safety in youth hockey. Develop and promote the ideas behind the *Fair Play System*, in which strong incentives (points are added in the standings) are provided to reward individual players and teams who have few penalties, and strong disincentives (points are deducted in the standings) are established to discourage penalties. Strengthen consequences for failing to follow code of conduct agreements that typically are part of Fair Play programs.
- Vigorously promote the integration of the *Heads Up* program into daily practices. *Heads Up* is designed to prevent serious head and spinal injuries by teaching players and coaches about how injuries happen and providing techniques to avoid injuries.
- Encourage the STOP program to be adopted by all teams. This program is designed to improve fair play and reduce the likelihood that players will check from behind, a dangerous play that can lead to spinal injury.
- Require more vigorous continuing education for coaches on the prevention and management of injurious plays.

Explore possible rule revisions to protect youth from serious injury

- Increase the severity of penalties for violations with significant potential to injure, whether intentional or not and whether a player was injured or not (e.g., make more liberal use of suspensions not only from the current game but from the subsequent game or games; require the offending team to pay for a third high-level referee at the next game, whether home or away).
- Adopt more stringent suspension provisions for injury potential plays; establish a limit beyond which a player would be banned from playing.
- Reassign to a different age level extreme variations in children by weight and size (make it impossible for a 70 lb. 12 year old to play against a 140 lb. 12 year old, for example).
- Track frequency of injury potential penalties by team; include upper limits on what is allowed for coach re-certification or coach selection by local hockey associations.
- Alongside win/loss records, post the comparative frequency of major rule violations by teams and players on the hockey association's website; this not only would help inform decisions to recertify or select a coach, but in parents' and players' decisions to join a team.

“Some strategies are easier to implement than others. The payoff of making progress on any of them, though, would be enormous if our kids could play the sport they love so well with a reduced likelihood that they will be injured as a result.”

“Giving the growing number of youth who play ice hockey in the United States, the need for additional research is increasingly urgent.”

Help players, coaches, parents, referees become informed

- Develop educational videotapes that demonstrate precisely what is and is not allowed within the parameters of each rule. Recruit celebrity hockey players, coaches, and sports broadcasters to star in the videos.
- Develop videotapes and other educational materials on preventing, assessing and managing common injuries of hockey. In a recent study, fewer than 1/3 of injured hockey players recalled receiving instruction on injury prevention.
- Require players, parents, coaches, and referees to watch the above videotapes at the start of the season.
- Closely track research on safety in hockey; inform others of findings; work closely with the research communities to support efforts in injury prevention.

Retain prohibition of checking in non-checking leagues

- Proponents of changing the rules to allow checking in non-checking leagues argue that players will be less inclined to be reckless or resort to violent plays if they are taught how to give and receive check and are allowed to check legally. This argument gives insufficient attention to the sizable body of evidence that checking—both illegal **and legal**—increase the likelihood of injury, including serious injury. A safer strategy would be to work toward reducing illegal plays through other approaches described in this paper, rather than through promoting the expansion of checking.
- The American Academy of Pediatrics and others have recommended that all checking be banned among youth age 15 and under. The evidence and rationale underlying this recommendation warrant serious consideration by all participants in amateur hockey.

Coaches

Incorporate safety issues into daily practices

- Train players to defend themselves against dangerous plays, even in non-checking leagues.
- Check the safety of players' equipment; notify parents if there are opportunities for improvement.
- Teach players about the limitations of equipment in preventing injury.

- Increase practice-to-games ratio to increase training and conditioning time.
- Advise players and parents of off-ice conditioning exercises, including neck strengthening and flexibility exercises.

Establish no tolerance for injurious plays or disrespect

- Provide strong disincentives (e.g, reduced ice time, probation) for engaging in dangerous illegal plays.
- Refrain from putting players with a history of injury potential penalties in the game toward the end of a period or the end of the game, when violence and injuries are more common.
- Clarify to players and parents that any form of disrespect toward opposing team or officials on or off the ice will not be tolerated.
- Clarify that all complaints about a referee, another coach, parents or players should come to you, rather than through any direct or indirect confrontation.

Emphasize skill develop; reduce the pressure of winning

- Measure success based on progress in the team's technical and strategic skills and the level of contentment, excitement, and respect among the players.
- Routinely acknowledge excellent plays and areas of progress.

Parents

Do what you can to keep your child safe

- Provide children with the highest quality equipment possible.
- Make sure players are properly hydrated, rested, and conditioned prior to games.
- Keep players conditioned during the off-season.
- Remain informed about safety issues.

Players and Parents

Keeping winning in perspective

- Be resolved never to let the pressure to win overpower having fun and maintaining a respectfulness toward other players and officials.
- Resolve never to resort to violence or aggressive behavior.

Researchers, Foundations

There are striking gaps in our knowledge of the prevalence, causes, prevention, and management of injuries in youth ice hockey. Giving the growing number of youth who play ice hockey in the United States, the need for additional research is increasingly urgent.

Conduct ongoing and more rigorous analyses of equipment and rink safety

- Conduct more rigorous helmet impact tests to identify superior design in preventing concussions.
- Design superior chest protection against sudden impact.
- Investigate optimal board design to reduce the severity of impact.
- Continue to devise improved strategies for rink air quality.

Track and analyze injury patterns

- Improve and expand systems for tracking and reporting injuries (e.g., revise score sheets to document types of penalties and frequency of injury; survey parents at the end of the season to document occurrence and management of injuries among players).
- Endorse efforts to separate ice hockey from field, roller, and other forms of hockey in existing data tracking systems (e.g., isolate admissions to the emergency room for injuries specific to ice hockey, for example).
- Conduct detailed subgroup analyses to identify variations in frequency, types, and site of injury by a range of predictive or explanatory variables related to individual players (e.g., age, gender, body size).
- Build on our existing base of knowledge of injury patterns according to game-related variables (player position, whether game vs. practice, season vs. tournament, game period and point of play in game).
- Investigate at greater length the frequency and nature of injury in checking vs. non-checking leagues.

Evaluate interventions to reduce injury and barriers to implementation

- Evaluate the effectiveness of and attitudes toward initiatives designed to reduce injury in youth hockey.
- Evaluate the adequacy of certification requirements and continuing education programs for coaches and referees relative to injury prevention, assessment and management.

- Examine strategies for overcoming political and other obstacles to implementing or expanding safety programs.

Investigate knowledge and attitudes of players, parents, coaches, referees

- Investigate variations in players' attitudes about risk-taking and willingness to engage in dangerous plays; investigate attitudes of parents, coaches, referees toward violence in youth ice hockey; make use of existing survey tools—e.g., “Eliminating Violence in Hockey,” by Bernie Pascall.
- Determine gaps in coaches' and referees' knowledge and understanding of injury prevention, assessment, and management.

Encourage the development of position papers

- Make greater use of position papers to stimulate discussion and extend the reach of scientific findings to the diverse participants in youth ice hockey.

So what do we conclude from all of this?

It should be clear that there is no shortage of possibilities for improving safety in youth ice hockey. Routine reminders by referees before games of the types of plays that will not be tolerated, increased practice time spent training players on injury prevention — any number of incremental approaches can play a part in making hockey a safer sport for kids to play. The good news is that if we all make the effort, children and youth can indulge in the sport they love with a lower risk of injury. The intense excitement of hockey depends on keeping our kids in top form in the game, rather than on the sidelines recovering from a tough blow. Too much is at stake by not taking some measure of action.

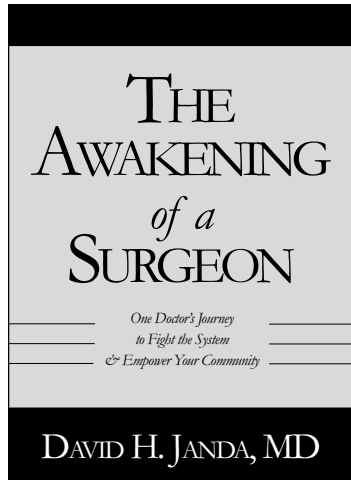
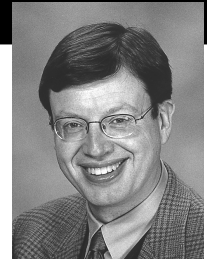
“The good news is that if we all make the effort, children and youth can indulge in the sport they love with a lower risk of injury.”

by David H. Janda, M.D.

Sports related injuries have become a public health epidemic

- 12 million student athletes will suffer a sports related injury this year
- Nearly 2 million injuries will be sustained in recreational softball and baseball games

This book outlines 20 points that can be implemented in every community to drastically reduce the possibility of injury.



"The Awakening of a Surgeon is a great book about making sports safer for your kids. It has my complete support as an Olympic gold medalist and as a parent."

~Bonnie Blair

"It gives us great pleasure to recommend The Awakening of a Surgeon, not only as an inspirational story about one man's quest for injury prevention, but as a mechanism for communities to come together and create a safer and healthier environment for children and adults."

~Nadia Comaneci
and Bart Conner

ORDER FORM ~ *The Awakening of a Surgeon*

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