

# dakota hockey

COOLEST GAME IN THE PRAIRIE

SPRING 2006

## How To Repair A Broken Hockey Program

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By Mike McKenna

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→ **When most hockey players** are learning to play the game, there isn't a lot of focus by coaches on skating mechanics, proper skating form or getting the best results possible out of your stride. Coaches usually have their hands full just trying to teach players the best way to play the sport. As a result, players develop their own habits as they go along and despite playing hockey for years, it's possible that the body mechanics you've developed while growing up skating may not get you the best results possible. Imagine trying out for a hockey team and skating your hardest only to be cut or sent to a lower level because the coach didn't think you had the proper skill sets to be on the team. Many players may get frustrated and end up giving up hockey completely.

Travis Ingbretson, the head coach of the Fargo South High School Girls Hockey Team has seen a lot of players in this position over the last few years. "It's tough to see a player get passed up who you know is trying very hard, especially when a younger player comes along and takes their spot," states Ingbretson. But last year while working with a bantam team, Ingbretson discovered something that could change the outcome for many hockey players. He noticed that one of his players skating ability had dramatically improved during the course of the season. "I knew that he must have been doing something on the side because the improvements in his skating were so amazing," explained Ingbretson. "He told me he was doing some training at Frappier Acceleration Sports Training (FAST) in Fargo and they videotaped his skating stride and told him how to make some adjustments."

The improvement impressed Ingbretson so much that he contacted FAST to see what it was they were doing with their clients to get such fantastic results. "FAST was working with clients not only on their strides, but on overall conditioning as well," explained Ingbretson. He discovered that FAST works with athletes of all sports to improve their speed, strength, quickness and flexibility by participating in scientifically researched training programs and by utilizing patented training equipment. One of FAST's patented pieces of equipment

is a treadmill that hockey players can skate on. If a skater has poor mechanics, FAST can observe the skater, recreate their stride and get the player to adapt to the changes through repetition.

"The Hockey Treadmill is such an incredible tool to help us evaluate a hockey player's stride," explained Jay Macleod, Director of Hockey Training at FAST. "There could be a lot of different issues with a skater's stride such as a lack of extension, standing up too straight, skating on their toes, lack of knee bend or leaning over too much." Using Dartfish Technology, a video analysis software program for athletes, the staff at FAST records a skater's stride and immediately break down their mechanics and identify ways to make their stride more efficient. In most cases, Macleod and his staff work with a skater to lengthen their stride and make sure they are more efficient skaters.

"By making slight changes in their skating mechanics, I've seen players make significant changes in only two sessions," states Macleod who adds that skaters might expel less energy as well. "I've seen fast skaters who may be flying around at 100 miles per hour but their feet are only moving two feet apart and they are expending all their energy. We can make them go as fast but more efficiently and with less effort."

The hockey treadmill, which is approximately

the size of a small car, is able to change the incline for skaters and runs at speeds over 16 miles per hour. It has safety harnesses that attach from above and is situated in front of a mirror so the skaters can see what they are doing. Along with the video, a skater can actually see the changes in action. "Kids especially are visual learners," explained John Frappier, who founded FAST in Fargo, North Dakota in 1990 and now has over 145 locations across North America, Europe, Japan and the Philippines. "You can repeat instructions over and over and they might not get what you are telling them. But once they see it, they understand what you are saying and they learn faster."

FAST has worked with kids all the way up to professional hockey players, which shows that almost anyone can have hockey talent, but still may not be getting the most out of their skating form. "The more that people learn to look at the body as a system that requires proper mechanics for optimum performance, the quicker they adapt to changes," explains Frappier. He also believes that the age of the athlete can dictate the difficulty of adjustments they recommend and would suggest seeking help sooner than later. "Most motor skill sets are formed prior to puberty and changes to these skill sets are easier to adapt prior to puberty and are more difficult after puberty."

Once a skater's stride has been established, the Hockey Treadmill can be used to build

the muscles used for skating as well as conditioning. "There's only one way to build hockey skating muscles and that's by skating," declares Macleod who also notes that hockey is an anaerobic sport, meaning that players use short bursts of energy versus endurance sports like running. "You could pedal an exercise bike for 30 minutes and you will get in good shape, but it won't get you into hockey playing game shape." To help hockey players get in game shape, one conditioning exercise used by FAST is to have them skate on the Hockey Treadmill at top speed for 30-45 second intervals using their patented SprintCords to target skating-specific muscles. "In a controlled environment, we are able to simulate the same situations as during a game and enhance workouts by providing resistance to upper and lower body extremities, building more powerful motions," insists Macleod.

While the Hockey Treadmill is one component of training hockey players at FAST, it's not the only technology that Ingbretson discovered at FAST. "Another element FAST uses in training hockey players is working on their foot speed which is so important to hockey," explained Ingbretson. The FAST staff works with a four square diagram on the floor to increase a player's foot speed and uses back pedaling to build quad strength. "By using backpedaling and walking backwards on a treadmill, an athlete can increase the strength in their quadriceps and hamstrings by as much as 20 percent," explains Frappier.

Another component in FAST's hockey training programs is weight training and the use of their patented Plyo Press machine designed for the combination of leg strength training and plyometrics. "No other device helps athletes achieve the unique benefit of building strength in ways that also benefit speed," insists Macleod who explains that the way to develop speed is by getting the most

contraction out of your muscles. "The greatest muscle activity happens in dynamic exercises such as jumping and the Plyo Press is much more effective than other lower-extremity-strengthening exercises such as squats and leg press devices." Because of its unique design, the Plyo Press eliminates the hazards of squat and leg press exercises. "It really allows the safest possible training without stressing lower back or knee joints with a controlled weight load," explains Macleod. This unique machine also allows injured athletes the opportunity to start their rehabilitation and range of motion exercises before they are fully weight bearing and get them back to their sport in a shorter period of time. "We have a physical therapy office connected to our building and their patients are always here doing exercises for their rehabilitation," states Macleod.

By the time Ingbretson was done researching FAST, he was so impressed that prior to the 2005-06 season, he registered his entire girl's high school team to work with FAST during the regular season. "Varsity sports is a huge time commitment and I wanted to make sure these girls were going to be getting the most out of their time," insists Ingbretson. He supplements their on ice training with work at FAST and his team's training appears to be paying off as his team is currently ranked second in the State and were only predicted to finish as high as sixth place out of eleven.

"At the beginning of the season, I saw a lot of short choppy strides from my players," explained Ingbretson. "Now, at the end of January, I've seen more jump in my players steps, longer, more powerful strides and their endurance has increased. They don't expel a lot of wasted energy on those short choppy strides anymore." Ingbretson also observes that hockey is all about winning the race to the open puck and his team seems to be winning many of those battles. "Our defense has the

ability to rush the puck up the ice with their more powerful strides and even our goalie has more leg strength and can get up and out of the butterfly very quickly," he admits.

Measuring results is one of the key things that FAST uses in developing their programs. "Everything we do is results orientated," explains Macleod. "We pre-test and post-test everything we do so that we can measure the changes all through the process." While the results are apparent in their measurements, it's on the ice that people see the most difference. "In an eight week period with younger kids, the parents are the ones who will tell you that they see a dramatic difference in their child's performance. In the older kids, they're the ones who will tell you that they can see the difference in their abilities and it builds their confidence and one of our goals is to build confidence through results."

Ingbretson has seen another benefit from the training at FAST that is benefiting the team that can't be measured on the ice. "Because we all train together, there is a team bonding element," states Ingbretson. "All of our players are going through the different elements of the program together and they encourage each other to keep going. It's quite an experience."

While Ingbretson and his high school team have seen improvements in their hockey playing, FAST believe their efforts are only part of the process. "Our job isn't to make our clients better hockey players," insists Frappier. "We are here to help them get in the best possible shape as fast as possible to help with what the coaching staff has to work with and science is a key ingredient in what we do to improve a player's abilities." The Fargo South High School Hockey Team is now a big fan of science and technology and they are hoping that their efforts pay off at year end with a title at the North Dakota State High School Hockey Championships. 