

# Guide to Waterpolo goalkeeping

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Goalkeeper, 1972-1992

## Craig Wilson's Guide to Goalkeeping - A Handbook for Player and Coach

1. [Why I chose to become a Water Polo Goalie and beyond.](#)
2. [How did Water Polo Goalies Originate?](#)
3. [Rule Differences Between the Goalie and the Field Player.](#)
  - o A little Chat About the Goalies.
4. [The "Right Stuff" - Goalie Selection: What Makes a Goalie?](#)
  - o Psychological Profile:
    - a. Leadership.
    - b. Guts.
    - c. Risk taker.
    - d. Quarterback.
    - e. Positive attitude.
    - f. Student of the Game.
    - g. Experience.
  - o Physical Profile:
    - a. Mobility and Quickness.
    - b. Flexibility.
    - c. Reaction Speed.
    - d. Swimming Ability.
    - e. Physical Fitness.
  - o The intangibles - goalie/field player interaction and individual patience.
5. [Fundamentals - How do you do it right?](#)
  - a. Positioning: Eggbeater and other kicks.
  - b. Body position: The "Ready" position.
  - c. Hand and eye reaction.
  - d. Coordinating defense - Verbal commands.
  - e. Leading the Counterattack - Passing - wet, dry, purpose of.
  - f. Swimming - training and tactical.
2. [Blocking the darn ball!!!](#)
  - a. Angles.
  - b. Drive-in (off the water) shots.
  - c. Overhand shots (low, high, center cage).
  - d. Lobs.
  - e. Four meters.
  - f. After the Save.
3. [Game situations - You gotta know what the heck is going on out there.](#)
4. [Out of the water - Getting the body and noodle ready for the "Big Ones."](#)
  - a. Keeping notebooks, observing opposition.
  - b. Mental rehearsal.
  - c. Weight training.
  - d. Strength and flexibility.
  - e. Field players role in goalie improvement.
5. [Epilogue.](#)
6. [Bibliography.](#)



## 1. INTRODUCTION

The first time I ever saw a water polo game was when I was in 1970 when I was 6th grade. Having grown up in Davis, California, I was exposed to College Water Polo at a young age. My initial observation was, "Man, you couldn't pay me to be a goalie in this game."

My keenest memory of those days was watching the University of California, Davis goalie who at the time was Peter Hogans. The reason I remember him so well was his technique for psyching himself up and psyching his opponent out before a penalty shot. The goal at the Davis pool was the non-floating type that attaches to the pool's wall. When a penalty shot was called, Pete would face the back of the goal with his hands on the bars of the goal, shake the goal and let out a primal scream that could be heard half way across the campus. This guy was "different." I never label a goalie crazy.

I remember clearly the tension as Pete would turn away from the back of the goal and face the shooter. The pool would become quiet, awaiting the referee's whistle to shoot the penalty shot. This guy would block many of these shots to the home town's delight. I remember a few occasions when he blocked them with his face! I honestly believe that there were players that were throwing the ball in his face from six feet away at 50 miles an hour. He was way too cool and tough.

When you see something that leaves you in awe, you leave with a long lasting memory and appreciation. So , then I joined Davis recreation water polo club, although as a field player. I liked the field, and I was pretty good. I threw the ball hard, I swam pretty fast.

How did I end up in the goal? Reluctantly, at first. I found the goalkeeper position to be the most exciting position in water polo or any game for that matter. The position of water polo goalie is really unique in sports because it has so much variety.

First of all, a goalie is like a second coach in the water - the leader, a director telling the players what to do and where to go. That appealed to me. Second, there is an incredible amount of strategy and risk-taking involved in the position and I'm a risk taker so I like that, too. Third, after making a steal or a save, the goalkeeper becomes a quarterback - and, I've always liked Joe Montana. Fourth, every coach I ever knew said the goalie is the most important player on the team and I like being important.

Finally, and most appealing, the goalkeeper can literally make or break the outcome of the game. If I played well, as Pete Hagen had done over and over again, my team had a good chance to win. If I played poorly we would lose. I really liked the responsibility of having a DIRECT impact on the outcome of the game.

But even if you think I'm crazy, and prefer the glamour of scoring goals and the fun of wrestling with your opponents you should still take time to learn what it takes to be a successful goalie: "The most important position in the pool." This knowledge will not only help you understand team defense concepts, but it will also help you offensively.

There have been so many exciting moments in my career - to name a few:

- Winning the 1979 N.C.A.A. Championships with the University of California, Santa Barbara.

- Walking into the Opening Ceremonies at the 1984 Los Angeles Olympic Games.
- Receiving an Olympic medal on the victory stand.

There have also been some embarrassing moments over the years. Two of these happened in the same game! Before I recount these embarrassment, let me introduce Tamás Faragó of Hungary.

Faragó was the greatest player I have ever seen and arguably the greatest Water Polo player ever to have worn a "Speedo". How good was he? Well, in the 1976 Olympics, Hungary scored 30 goals on its way to winning the Gold Medal. Of those 30 goals, Faragó scored a remarkable 22, including four goals in the deciding game against Italy.

The thing that most amazed me about Faragó was that he always seemed to know what the goalie was thinking. I'll never forget my first Professional game in the Italian leagues in 1988. I joined my team three days before and we were playing in the semi-finals of one of their two championships called "The Cup of the Cup." I had just finished the '92 Seoul Olympics and was in pretty good condition at the time. This was a game I cannot forget. Number one, because it was my first game in Italy as a professional. Number two because of Faragó. I was the new kid on the block and he was the aging superstar.

The game was in Genoa, Italy. I was playing for Ortigia of Siracusa, Sicily and Faragó was playing for Aranzano of Genoa. Aranzano (the opposite team) won the opening sprint after which Faragó received the ball at mid tank. I took my off him for a split second and a backhand shot I never saw zipped over my head and into the net. Needless to say, there was laughter in the stands. Maybe I was a little rattled but I was also shocked that someone would try a backhand from half-court. I had forgotten it was Faragó

**LESSON #1:** Always expect the unexpected.

The lesson with Tamás was that when Faragó had the ball, he never took his eye off the goalie. He was always probing for what the goalie was thinking, searching for a weakness. Where was the goalie positioned? Where were his hands? Was he protecting a weakness? "If you don't watch the goalkeeper, understand what he's thinking, what he's expecting how can you expect to outsmart him?" he once told me.

Faragó reminded me never to assume anything. Don't ever become so comfortable that you expect events to occur the way you have seen them unfold in the past. Although the ball was on the other side of half-way, he saw a weakness and exploited it with the crisp backhand. He was probing and searching for a weakness. After that game I, of course, never took my off Faragó when he had the ball.

As the quarters went by, each team traded goals, the game was close. I had been playing in the goal for fifteen years. My second embarrassing moment came in the 4th quarter as I was taking a chance to try and intercept a pass from the goalie to a player streaking towards my goal by himself. As the goalie wound up to throw the long outlet pass to the open man I also left the goal expecting to intercept the pass as it landed on the water. I had done this many times before and it had worked beautifully.

As I made my first move away from the goal toward the expected arrival site of the ball I realized that the opposing goalie was not trying to throw the ball to the open player but towards the goal! Once I realized the opposite goalie was shooting, I

back-peddled and thrust my arm up as high as possible missing the ball by inches. As my head came up above the water I knew..... The laughter was even louder this time. The ball was in the goal. The goalie had made a perfect pass(shot) to the goal.

It was the first time in my career, spanning back to Junior High School, that I had been scored upon from the other end of the pool. I was not a happy camper. We ended up losing the game by a goal. My two blunders cost the team the game and a trip to the finals. I thought back to my reasons for wanting to play in the goal. I wanted to be responsible for the outcome of the game. In this case, I cost the team the game.

**LESSON #2:** Do not alter your playing style because of an embarrassing incident. Every game, regardless of your experience level, will always provide a lesson learned. It is your responsibility to find the lesson and learn from it (them). The second that you think that you know it all is the instant you will cease to improve as a player.

The goal that was scored against me from the opposing Aranzano goalie will always be memorable. Although, that one mistake may have cost my team the game, there had been and were many other occasions, when my having stolen a pass from the goalie had taken away a scoring opportunity. I know that in making risky steals I had saved my team and helped it win numerous games. I learned that I would still use my best judgment and would not alter my playing style because of this one embarrassing incident. With risk taking will come occasional failures.

There is another thing I remember about my first encounter with Faragó. In International Water Polo, there's a great fellowship among players, but the fraternization is always characterized by psychological warfare.

After the game, Faragó put his arm around me. "Wheelsone," he said in his broken English with a haughty laugh. "In Hungarian we have...how say..ahh...an old proverb. A Goalie can never more clever than the shooter." I faked a smile and gave a half-hearted laugh as he repeated his clever aphorism again and praised his wit. "That's a good one, huh Wheelsone?"

But I also vowed that a goalie, or at least this goalie could indeed be more clever than a shooter, or at least as clever. I knew it wouldn't be easy because shooters have at least three inherent advantages over the goalkeeper: the element of surprise, quicker movement, and the size of the goal.

The three keys to equalizing the above equation are great fundamentals, positioning and knowing the capabilities of the shooter and your opponents. Once the equation is equal, it's a chess game, psychological warfare of who can outsmart who. That's what I loved about this game. Matching wits with my opponents every time the ball came down the pool towards my goal.

The reason I'm writing this book is because I truly love the sport of water polo. By sharing with you how I played the game, I hope to generate in you some of the excitement and pleasure that water polo gave me.

## **2. WHERE DID WATERPOLO GOALIES COME FROM? A Little History Lesson.**

Originally, water polo was a form of aquatic rugby characterized by fierce underwater wrestling and tackling. The object of the game was to score by touching the ball to the wall at your opponents end of the pool.

From the very beginning, goal keepers were special. They had to be big, strong and fearless. They needed to be able to hold their breath underwater for long periods. But, they did not need to be a great swimmer. For the majority of the game, goalies could hang on the wall and watch their teammates slug it out with the opponents. On the rare occasions the ball came near, they had the pleasure of trying to drown the ball carrier.

In the early 1880's the Scots put up rugby goal posts about 10 feet wide at the end of the pool to minimize the scoring area. With this innovation came a rule that permitted the goalkeeper to defend the goal from the pool deck. Goalies prevented goals simply by jumping on the victims. They would wait for the opponent to arrive with the ball and then jump onto the players head when they got in scoring range. Apparently, after a few broken necks the rules brought goalies back into the water again.

By the late 1880's, the Scottish rules modified to reflect soccer. In fact, for a brief period of time, the game was actually called "water soccer." Under the new, more civilized rules, goals were scored by throwing the ball into a 3' X 10' feet netted cage. Although field players could only use one hand, goalies retained the special privilege of using both hands. This particular rule has remained essentially the same for the past 100 years, but the speed of the game has changed dramatically.

The goalie position as we know it today has remained basically the same for over 50 years. The first major breakthrough for the goalkeeper was the innovation of the eggbeater kick by the Hungarians in the 1940's (see page ). This kick allowed Water Polo Players to maintain a stable, head above water, body position. Still, the goalkeeper was passive, remaining locked in front of the goal.

Today, many goalies play as the seventh field player darting out from the goal to steal or breakup a cross pass before the shot can even be taken.

Additionally, in changing the rule that kept goalies from passing the ball past half-court, modern goalies now make 20 meter passes to get the fast break or counterattack started. It's a whole new ball game, requiring a great variety of skills and techniques.

Unlike the other six players, the goalie position still does have its own set of rules, such as:

- Privilege to use two hands on the ball within the 4-meter area.
- Privilege to use a clenched fist to block the ball.
- Privilege to stand, walk, and jump from the bottom of the pool within the 4-meter area.
- Restricted to the defensive half of the pool.

I believe that the rules should be further modified to allow the goalie to act more like a field player. Currently (s)he cannot touch the ball past half court. Like the sport of ice hockey, I believe the goalie should be the seventh scoring threat if necessary.

### 3. THE GOALIE MAKES A SIGNIFICANT IMPACT

The goalie position differs in many areas from his teammates yet requires complete synchronization within the team. When a goalie is playing to the peak of their abilities, (s)he/ will directly contribute to the success of their team: In addition, a

strong goalie can give the other six players more freedom to take chances on the defensive end of the pool in order to gain offensive advantages for a fast-break.

By virtue of the number of different jobs a goalie must do, many of the famous names in the sport of Water Polo have this to say about goalies:

- "(He/She) Changes the outcome of a game single-handedly." (Steve Heaston, Olympic Coach, 1993 Coaches Clinic)
- "Is the most important player on the team." (Pete Cutino, National Coach , 1976)
- "Can help field players take more liberties defensively." (Art Lambert, Olympic Coach, 1972)
- "Starts the offensive charge." (Monte Nitzkowski, Olympic Coach, 1989)
- "Strong goalkeepers win games." (Robert Horn, U.C.L.A., 1988 Y.E.S. Clinic)

A goalie's impact on the game can be easily expressed with simple arithmetic. In an average Water Polo game there are usually 20 or so shots taken on goal. An average goalie will block 40% and a strong goalie will block 60% of the shots. With the numbers as a benchmark, a strong goalie performance will create a 4-5 goal difference per game.

How often do you have a field player that averages four goals per game? An extremely strong field player will average 2-4 goals every game. If there is a player that can average over four goals per game, by all means keep him or her in the field. The point is, you should always consider one of the stronger players for the goalie position.

In the goal, there is no place to hide. If a goalie makes a mistake, the result is a goal. There are few players who would want to shoulder the responsibility for what happens in this position. I believe one of my strongest characteristics was my ability to always look on the positive side of a seemingly negative situation. You have all heard that some look at a glass half-empty while others look at a glass half-full. Never, did I look at a glass half-empty.

This attitude is critical to a goalies mentality. During a game, it is a detriment to be worrying about certain players shooting the ball in the corners or how the past three times you have played this particular team, the star player has dominated play. Personally, I have never had that type of nightmare. My view of this scenario would be to look forward to playing this team and relish the opportunity to block those shots that I had previously missed. Additionally, I would also anticipate the time when I could stop their star player.

Having given a basic philosophic description of the goalkeepers position, let us now turn to the specifics of selection and training for the spot.

#### **4. THE RIGHT STUFF - Selection: What Makes a Goalie?**

I was recently visiting an old Water Polo buddy and fellow 1988 Olympian, Greg Boyer, in Southern California. We were eating breakfast when I came upon an article in the sports page written by a high school water polo goalie, Greg Stoll. I was impressed with his message, so I saved the article. The article appealed to me because it discussed some of the essence of what it is to be a water polo goalie. In speaking with him later on, Greg told me that he wrote the article in response to a request from the Los Angeles Times for stories about the toughest job in sports. Here is the article in it's entirety:

*The 1993 Division I water polo CIF final game was entering its third overtime period, "sudden victory" as my team calls it, tied at 9 to 9. And there I was, the El Toro High School sophomore goalkeeper, amidst thirteen seniors on the squad. Thirteen seniors who would end their high school career in anguish following but one little screw up by me, the scrawny kid, in the goal. The pressure was so immense that I no longer noticed the sea of people outlining the tiny 25 meter pool, the college scouts, the T.V. cameras, or my wailing coach a few yards away. You can imagine how ecstatic and relieved I was when my brother threw in the winning goal to win the game.*

*What is the toughest job in sports? I've participated in water polo, basketball, volleyball, and swimming while at El Toro, have entered organized leagues in soccer, baseball and tennis prior to entering high school. I've stood at the free throw line at the end of a tied game, got that long set at match point, and awaited that pitch with bases loaded down by two runs. All this that I've gone through can't hold a candle to the pressure I've endured as a water polo goalie.*

*What about skill and training? Every boy and girl is born capable of running, jumping and throwing, but all water polo players, especially goalies must learn the basic skill that only 5% of the world today know how to do - tread water. Not treading water to merely stay afloat, but rather work out holding a 25 lb. weight over his head while treading water. Such pressure on the leg joints and ligaments is often the source of knee injuries (I enter surgery this month). Still, that's what needs to be done in order to raise one's body out of the water exposing the swim suit about 300 times a practice. During games, once a goalie masters the art of squinting through the four-o'clock sun reflecting off of the surface of the water, he is often expected to stop 35-40 mph shots from point blank range. Yet he mustn't just get in the way, but block the ball and control it immediately, ready to pass the ball to a teammate on the fast break as the opposing team rushes to scavenge a "garbage" goal.*

*To me being a goalkeeper in the sport of Water Polo is the toughest job in prep athletics. I'm sure you might have a perfectly rational reason for believing otherwise. However, if just for a second you could put aside that erroneous stereotype of water polo being a bunch of boys paddling around in Speedos, I'd be perfectly happy to trade places for awhile. I'm always eager to challenge myself, and would love to have a go at a job tougher than the one I'm already doing. Yet, you may be surprised to see which job is easier to pick up, and yet which one is easier to give up.*

The decision of who should play goalie is one that is made in the formative years of competition. It is very rare that a water polo player entering college will change from field player to goalie, but the opposite certainly does occur.

Field players and coaches agree that goalies are a different breed of individual from the rest of the team. In order to keep this manual publishable (G rated) I had to omit some of the descriptions that my past teammates and coaches have used to describe goalies.

Needless to say, there are certain people who are born for the position and those who can sharpen their talents to become an accomplished goalie. Identifying the key ingredients that make up a world class goalie is the first step. Let's start by checking the components that make up a goalies psychological profile:

**The goalie must show leadership.** By virtue of his vantage point at either end of the pool, he has a **total** view of the playing field. For this reason, he must

continually communicate to his teammates information about what is going on in the game. He is the voice of the team, primarily for the defense, but also he can relay critical information to the offense (e.g. time on the shot clock). He must have the ability to make quick decisions, speak up and feel comfortable guiding the field players with concise, timely and relevant information.

**The goalie must have guts.** The most essential yet elusive quality requires the courage to WANT to be hit by the ball. When starting out, this is the toughest fear to conquer. We are all born with the human survival instinct. It is natural to want to dodge large projectiles hurled at your body. Seasoned goalies will admit that the survival instinct was probably one of their toughest hurdles to overcome, at least it was for me. One day it finally dawned on me that being hit by the ball, including the face, rarely hurt for more than a couple of seconds. In addition, I was always happy to be hit by the ball because that meant that I blocked it. Of course, there is the rare and embarrassing occasions when you are hit by the ball and it still goes in the goal. Shake it off and look forward to the next shot.

I don't have any specific tricks or drills that can help you through this transition other than to say that we all go through it. The quicker you can forget about being hit, the quicker you can move on to more serious training and playing.

[CLIP #3] FACE SHOT??

**The goalie must be a risk taker.** Springing from the goal to make a steal, "baiting" a shooter to take a shot to a side of the goal that was purposely left open, changing defensive alignments during the game to confuse the opposing team are common examples of risk taking that I would employ. As you remember from the opening chapter, I took risks and occasionally paid a price. In the long run, my desire to take risks and to explore the limits of what I was capable of doing allowed me to create new moves, strategies and a few tricks into my repertoire.

**The goalie must be a quarterback.** After a save or a steal the goalie must **quickly** survey his team as they counter-attack down the pool, evaluate the predicament then make a pin-point pass to the correct player. Failing to identify the right "outlet" player can cost your team a fast-break goal. Goalies should be able to make passes up to 25 meters down the pool with the ball landing in an area no larger than 1 square meter.

**The goalie must maintain a positive attitude.** He is the last line of defense and the last hope. Greg Stoll articulated this in his article. The position lends itself to being placed in a pressure cooker. A positive attitude is infectious. If you stay positive your teammates will believe in you and will share in your outlook. You probably have heard that some people look at a glass half-empty while others look at a glass half-full. I never I saw a half-empty glass.

There is no place for getting "down in the dumps" during a game. When the "chips are down" it is imperative that you maintain your composure. In the goal, like being on a stage, there is no place to hide. If a moment arrives when the pressure becomes too much, don't let your teammates and **especially** your opponent know that you are temporarily scared or worried.

When you have a goal scored against you always make a mental note to yourself detailing the specific circumstances that resulted in the goal and most importantly maintain your composure. If the goal was scored as a because of a an outstanding play then you can tip your hat to your opponent. If you missed a shot that you should have blocked search your thoughts for a reason why you may have missed the ball. If no clear reason is readily apparent then chalk it up as a bad play on your

part. We have all missed shots in games that we were able to block with our eyes closed in during practice. During a quarter break or after the game, ask yourself, your teammates and coach what could have done if anything, to prevent the same goal from happening again.

**A goalie must be a student of the game.** The goalie position differs greatly from the field positions in Water Polo. In order to reach your potential as goalie you must understand every aspect of the game in order to play in synchronization with the field players. A defense (goalie & field players) will consistently play at a high level when they understand the fundamentals of individual and team defense, execute the team's defensive strategy together, know the strengths and weaknesses of their teammates and keep open lines of communication during the game. When a goalie and his defense are "in synch" the opposing team will look as if they are playing with lethargy and without a clear offensive strategy.

Being a student of the game is easy: therefore make it a part of your training regimen. You can never learn enough about Water Polo. I was still learning as I played my last games with the U.S. team at the Barcelona Olympics. Study your opponents by watching their games, listen to your coach(s), break out the Water Polo video collection and study your written as well as mental notes. By becoming a student of the game you will develop more common sense and analytical skills which will give you the ability to figure out the best percentages for defensive alignments, shooting angles, etc.

**The last psychological ingredient is experience.** Experience is an entity that cannot be trained and is the lifeblood that makes a good goalie great. It helps a goalie to better anticipate the shot, make the outlet pass to the right player, lead the team through communication and leadership, stay cool under pressure to name few. The bottom line is that experienced goalies make less mistakes, hence they give up less goals. If you were to ask a group of coaches, what is their top consideration when selection a goalie to play in a big game, my guess is that you would see that experience would top the list. This is why you find most starting goalies in the international arena above the age of 30. Even though the younger second and third string goalies may display more physical talent, my hunch is that the coaches keep the younger goalies on the bench giving them the experience of watching the older veteran play.

Now that we have discussed the goalies psychological attributes lets discuss **physical makeup:**

**The goalie should have good mobility and quickness.** Leg strength and overall flexibility are necessary attributes that allow a goalie to cover the inside dimensions of the cage. Ideally, you want a player who is proficient in the egg-beater kick.

**Flexibility** helps a goalie to stretch for a ball while the body is contorted having just moved from one portion of the cage to another. This may be the difference between a deflection and a goal. Goalies must be able to move sideways, forwards, backwards, and straight up. Goalies must work on this flexibility and range of motion through daily stretching.

**Reaction speed** is a prerequisite for goalies. Much like a sprinter in swimming, you must have a quick first movement to get to the ball before it goes past you. Reflexes must be sharpened through practice.

The goalie should be able to **swim**. For short distances, goalies need swimming speed to be able to out-swim field players and make steals. Don't assume that because you are a goalie, you will not have to swim. Try to learn how to swim the

front crawl as well as you can, because it will become one of your best threats to steal the ball. I swam competitively as a youth through my Junior year in high school and was one of the faster players (50 yards) on the Olympic team.

The goalie must be **physically fit**. Strength will increase stamina, speed and longevity. The goalies desired body type should be lean so as to enhance flexibility and range of motion. I was fortunate to be 6'5" with long arms. I was never bulky regardless of my weight lifting program. For this, I was fortunate. You don't have to be as tall as I am. I have seen goalies under 6 feet tall who play excellent Water Polo.

Traditionally, goalies have longer careers than field players. This is due largely to the lack of swimming required of the position. The type of conditioning required of a goalie does not demand that he or she must swim the distances as field players. If a goalie has a physical ailment, is it usually a broken or dislocated finger or a hyper extended elbow. These ailments are really nothing more than a nuisance and do not force one into retirement from the game. Field players on the other hand tend to wear out their shoulders as they enter their "golden" years.

It is important to remember that a goalie is only as good as the defense in front of him. Great defensive performances will make a weaker goalie look strong while a poor defensive performances will make a superior goalie appear weak. If you have had the opportunity to watch a game from directly behind the goal, then you have seen the individual skills of the goalie and the coordination of the defense. Although a goalies individual performance can be evaluated in a vacuum, it is more appropriate to view the goalies performance as it related to the team defense. When my teammates played outstanding team defense, I rarely had a bad game.

A great performance by a team makes the goalie look strong while a weak team performance makes the goalie appear weak. If you have watched a game from directly behind the goal, you have seen the critical importance of the team concept in overall coordination of the defense. A goalie can only be as strong as the team defense in front of him/her. Although, individual performance does play an important role, the team concept will add greatly to a goalies performance. When my teammates played outstanding team defense, I rarely had a bad game. Most of the time I received the compliments for a good performance, when in fact the entire team should have also received the same praise.

The goalie has much to learn and develop. Some improvements will come naturally while some will take time to develop with the assistance of coaching and practice. A goalie doesn't have to be tops in all areas. It is important that the individual selected develop his own style suited to his strengths. Regardless of one's skill level when they start, their strengths will get stronger and their weaknesses will diminish.

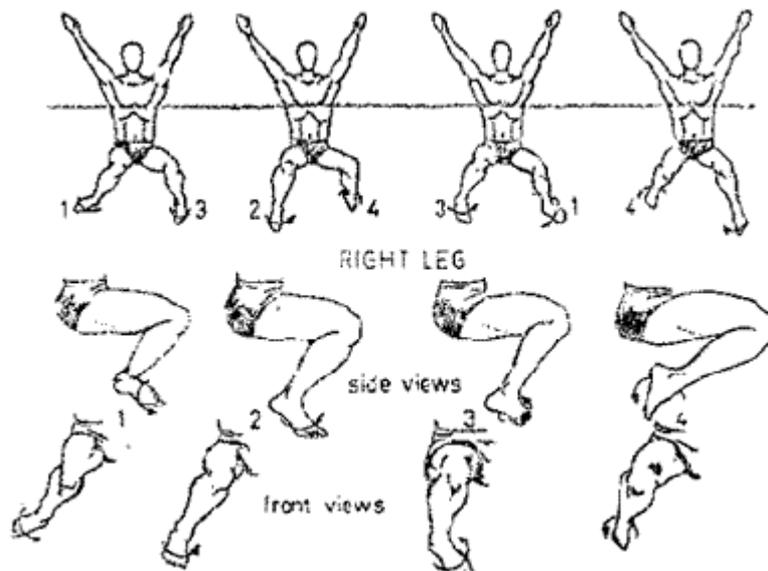
## **5. FUNDAMENTALS - How do you do it right?**

**A. Eggbeater kick.** This skill is the most basic of every goalie. You should be able to execute all of the following:



As part of an identification process for selecting goalies, it is usually the case that those who are best at alternating frog kick are potentially the best goalies. Taken a step further, those swimmers who are good breaststrokes are prime candidates for goalie.

The eggbeater kick is most critical. Many manuals have been written on the fundamentals of the eggbeater kick so I will not attempt to explain in detail how it is done. As seen by the diagrams, the breaststroke kick is alternated so that each leg operates independently and continuously. While one leg is recovering the other is flexing, and so on. The kick is done with the body in a vertical, or sitting position.



My philosophy is that you can never spend enough time training with the eggbeater. If your knees or hips begin to hurt, STOP immediately and let your body rest. It is telling you that there is a problem. If you don't have any pain, just soreness, then spend more time working on your leg strength and quickness.

As a lead up, I have found that beginning goalies should learn eggbeater while holding a kick board. This frees the hands and allows you to fully concentrate on the legs. In the beginning of each season, I would take a kick board, hold it in the water as if it were a plow and eggbeater laps. My coach in Italy made me do this in the beginning of the season for the first week before we started with strenuous eggbeater and I never had a problem with extreme soreness and injury as I had in the previous years. The rule of thumb is to work your way up to extreme training.

In addition to the eggbeater, goalies should be proficient and practice at the flutter kick. This crawl kick will be useful for the short sprints necessary and for general

flexibility of the legs.

Sculling is another technique that can help your eggbeater. You should be able to move your hands back and forth lightly on the surface of the water to assist in propelling you across the width of the cage. I practiced sculling while in the sitting position. My coaches called this the "Chair Drill". Sculling helps with lateral movement and gives the goalie a good feel for the water.

### **B. Body position** - ready position.

There is a definite difference between the resting eggbeater kick and the alert, ready position. Goalies must begin to rise higher in the water in order to prepare for a shot and see all that transpires in the field or water in front. (S)he needs to have a minimum height of the chest above the surface of the water for this alert position. The hip position should be slightly behind the torso, that is, not vertical. {see photos}

In conjunction with this body position, the goalie must also be concerned with the next fundamental - hands position.

### **C. Hand position.**

The hands are an important stabilizing and mobility force through the sculling motion. But: A goalie's hands should NEVER be too far below the surface of the water when a shooter has the ball.



Another way to interpret the amount of hand motion a goalie should use is given by three-time Hungarian Olympian András Molnár: "I use my hands when the ball is being passed from one player to another. When a player has the ball and is ready to shoot I ease up on the arms and hands; the legs take over."



The ready position listed above will change according to the closeness of the ball to the cage. As a general guideline, I have found that your hands should be in front of your body, elbows bent comfortably and the following distances kept in mind. When the ball is:

- Outside of 6 meters the hands are just below the surface of the water. {Wilson photo}
- Between 4-6 meters the hands should be ON the surface of the water and not below it. {photo-h.s.}
- Closer than 4 meters the hands need to be all the way out of the water. {illustrations A,B,E and photo Bercutt}



•

The length of time between when the ball leaves the shooter's hand and when it reaches the goal line (cage) determines these hand positions. In general, the

shorter the distance between the goalie and the shooter, the less time there is to react to the shot.

NOTE: It is far better for a goalie to ride lower in the water if need be, with the hands freer to move after the ball!

The question of how whether to use one or two hands when moving to the ball is dependent on how fast the shot is approaching and where it is directed. If possible, use two hands to block the ball when there is: {Photo Wilson, two hands}.

- A softer shot close to the body.
- A longer, weaker shot to the outer portions of the cage.

[In these instances, the palms should be facing each other to form a ladle-shape, fingers together, thumbs close together. The wrists need to be firm so that the ball doesn't "squirt" through the hands.]

NOTE: In all other instances, one hand or any portion of the body should be used to reach and block the ball. One-hand lunges from the goalie can reach farther and faster than two-hand lunges.

**D. Verbal commands** - I would like to emphasize that shot-blocking should be the goalie's first priority, and the goalie should never break his(her) concentration in order to call a command.

The words you use play a big part in the teams' defensive execution. It is safe to say keep it brief. If you can develop short phrases to instruct a teammates, use them. For example, MOVE LEFT may mean move your body/arm to the left whereas BALL LEFT means that the ball is moving down the left side of the pool. In team meeting and practices find words that best suit your teams' needs.

Additionally, just as the field players should be supportive of the goalie, you should try to be positive in directions, emphasizing what to do instead of what not to do. Sometimes, if there are defensive breakdown(s), I believe it is best to save any constructive criticism for the quarter break, or after the game.

Remember that your communication should add to your shot blocking, not take the place of it.

Over time, you will develop confidence in your shot blocking and then you can help your blocking by calling out commands. These commands will also help remedy mistakes by the defensive field players. Goalie commands that should be made loudly to the field players are:

- Where the ball is - left of goal, right, center of goal.
- The time on the your offensive must shoot clock - certain times 15 seconds, 10 seconds ("Red"), 5 seconds - countdown.
- What field players should be pressed, and what players might be left uncovered.
- Where a "free" or open, unguarded opposing player is.
- In specific situations, where your defensive players should position themselves [e.g.5 on 6]. The directions to the field players should be left, right, forward or back; referring to where the defensive player should move relative to the offensive player.
- When a ball changes hands. You should call "WHITE BALL"; or "BLUE BALL."
- Special plays, key signal words that only your teammates know.

- Non-verbally, you can also point to where the ball when your team is on offense or defense allowing your teammates to know where the ball is if the crowd noise makes hearing difficult.

NOTE: Whenever possible, you should clarify your instructions by using the field player's names.

### **E. Passing.**

Part of the quarterback responsibilities of a goalie are to start the offense with the first pass down field. This pass starts the counterattack and is called the outlet pass. I recommend practice passing during warm-up every day! Because your passes are usually longer and unguarded, these types of pass should be practiced more frequently rather than shorter passes. Your skills for passing include:

1. Dribbling: After you gain possession of the ball, swim with it with your head high, out to about the 5-7 meters. This move shortens the distance of the outlet pass. Sometimes this move is not practical (a teammate is wide open) or possible (there are opposing players nearby). And, if the pool you play in is 25 yards or meters in length, you probably don't need to do this dribble.
2. Once in control of the ball, out of the cage and ready to pass, you should lift the ball up high and extend the body up high out of the water to make a long pass. {see photo Wilson, Duplanty, Tinseth, Barnes}.
3. For good passing technique, the ball should leave the your middle and index fingers with little spin. Also, there should be an arc on the flight of the ball (that is, not a flat pass). I have found this method assures accuracy and reduces the pass that skips when it lands.
4. Be sure to have eye-to-eye contact with the receiver before passing. When possible, I like to call out the players name who is about to receive the ball. I also "read" the receiver much like throwing a lead pass in football. As 1996 Olympic Coach Corso says "place the ball to where the free man will be, not where he is." This is important so that your receiver does not have to "break stride" when swimming towards the opposition's goal. {see diagram}.
5. Your outlet pass also needs to be placed to a "safe" spot where the offensive player can screen off any opposing players. The deeper your pass goes into the opposition's territory, the better. I recommend that this pass ought to lead the counterattack or fast break.
6. Because most of your teammates will be right-handed, the outlet pass will be better placed on the right side of the pool. This gives the receiver of the outlet pass the ability to throw a ball-side pass to a right-handed player who may be open on a fast break. If you know that a player is open on a counter-attack and that the player is left-handed, look for a release to your left-side of the pool.

One additional hint: when your teammates are close to or have their set offense arranged. If your team has the set offense prepared, you should place the release pass to the side where the two meter player will be setting. {see diagram}

7. Whenever possible a dry pass is best. Make sure that you can put it in the receivers hand and that there are no defensive players nearby who may be able to cut in front of your player and steal the ball.

**G. Swimming** - As was said, good swimming ability will help you at specific times of the game.

One of the rare known facts about the U.S. goalies of the 80's was that we were fast swimmers. In fact, a couple of months before the 1984 and 1988 Olympics the

goalies challenged the field players to a 4 X 100 Medley Relay. We had four goalies in the camp and we let the field players choose their best team from the entire field squad. Needless to say, we won both times.

If you ask any of the field players from either team of course they will say that they don't recall such an event. Rest assured, it happened. Our witness was the German National and Olympic coach Niki (Faru?). We held the 1984 relay at Stanford while we were training with Germany. Niki thought that we were crazy to propose such a challenge. Once he saw our decisive superiority he priestly walked over to his goalies and said something in German that translated to "you will now start working on your swimming."

Before the 1984 Olympics, Rich Corso, the Olympic goalie coach at the time, timed us in various swims. A I remember my times were:

- 50 free: 21 seconds +.
- 100 free: 46 seconds +.
- 100 fly: 50 seconds +.
- In 1992, a few weeks before we left for Barcelona, I swam (with a dive) the 100 IM in 54 seconds. (Not too bad for a 35 year old goalie if I do say so myself.)

The type of swimming you will do most often in games is a sprint. So, in addition to general warm-up and cardiovascular middle or longer distance swimming, you should work on your sprint speed. You will almost never have to swim farther than 6 meters at any one burst.

Your sprinting can be in the form of:

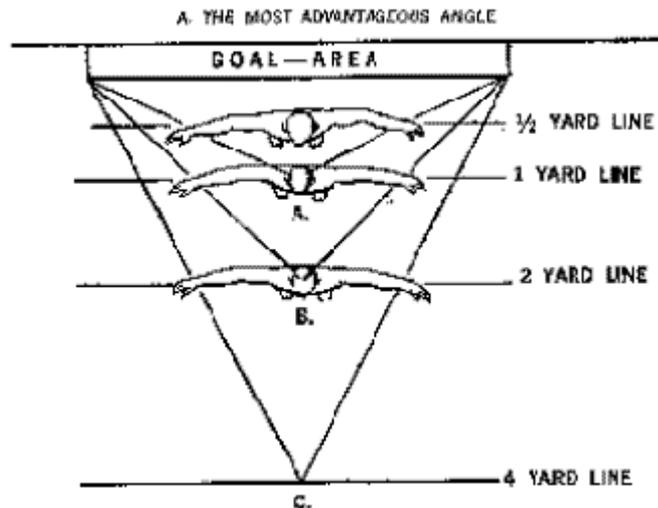
- stop-and-go drills - work on snapping your hips up and down, going from flutter kick to vertical eggbeater.
- short distance all-out swims with much rest.
- timed swims of 25 meters. I like to do these portions of the field players' conditioning sets.

Although, your swimming ability is not the top priority for your training, it is essential for overall conditioning for the position. Any goalie that does not put in good swimming sets will not reach his or hers' full potential.

## 6. Block the Darn Ball!!! (BLOCKING TECHNIQUES)

**A. Angles and Positioning.** Much of what you do in preparation for the actual shot block is based on geometry.

1. The cage is a rectangle, and the shooter is a certain distance away. Given these two variables, you must look to find the best centered position. Geometrically, as 1988 Olympic Coach Heaston says, a triangle can be formed by an imaginary line from both posts of the cage to the ball. {Corso diagram p.53 Clinic} Your head needs to be at the mid point of the base of the triangle. I try to have my head intersect a straight line drawn between the ball and the center of the goal. {Wilson, illustration F}. This centering process takes place when you moves laterally, from side to side.
2. Another type of centering takes place when the shooter moves closer or farther away from the goal, or passes to a teammate who is closer or farther away.



- 3.
4. In general, as the shooter gets closer to the cage, you can diminish the amount of net available by coming out. You can see this in the diagram and illustration; the closer the goalie comes to the shooter at short range, the less cage area available. In the above situation, a goalie should be at position "B" to block a shot from a shooter at "C". {Lambert, p.190} Conversely, when the shooter moves farther away, the goalie should move back closer to the cage so as to avoid the lob shot or cross-pass.
5. A third factor important for positioning considers percentages for the shooter. It is easier on angled (i.e. from outside the middle of the pool) shots for the shooter to pinpoint the corner nearest them. This corner is the shortest distance for the shooter and the easiest for accuracy. It is called the "strong side" of the goal -- the side closest to the ball.

Most shooters prefer to shoot to the near side of the goal. Therefore, the odds are better to block the ball by staying closer to the strong side; be ready to stop any near side shot or over your head. (Bunnies) {Wilson illustration A}

**B. Overhand, Outside shots** or "R.B.'s" These shots are from six meters away or more.

1. For all shot blocks, the first position is being "ready" in the keyboard pose, as I stated earlier. This ready position includes hands and body.
2. Next: watch the ball; KEEP YOUR EYE ON THE BALL, not the shooter. The explosive reaction to block is up and towards the ball when it is in the air, not before. Do not go for a fake(s) by the shooter, wait for the ball to come to you.
3. The head position keys the rest of the body, so move it towards the ball. If going to the right, give a quick push on the surface of the water with the right hand; the left hand pushes away from the ball. Try to see the ball hit your hand. {Illustration C, Clevenger, Wade, Hackett photo}



- 4.
5. After making contact with the ball, you should try to be sure that it stays in front of you. Be sure to keep your legs working, snap your hips down and regain your hand position so that you are ready for another quick block. When at all possible, the ball should be controlled by bringing it in closer to your body after the block.

**C. Drive-in, off-the-water shots.** These come from inside 5 meters.

1. They require both hands and arms out of the water as part of the ready position. You must have your hands out of the water because the ball will be coming fast, and you will have time only for a quick movement of arms to one side or the other. Coming up high and staying there intimidates shooters as they cannot see a lot of the cage.
2. Wait for the shot to come to you if the player is dribbling. Remember that the shooter will not know where the holes are to shoot if you don't react upwards or sideways.
3. When raising your hands out of the water, try to keep a 90-degree bend at your elbows and take away the holes beside your ears.

About the best one can expect on this block is to deflect it, without necessarily being able to control the ball after blocking it. **D. Two meter shots.** These are shots that leave the goalie very little time to react to and are often blind, that is, the goalie cannot see the shot originate. Keep in mind, the shooter is not facing the goalie.

1. The best anticipation for the goalkeeper is to assume that when the ball is passed to the 2-meter player there will be a shot. Therefore, when the ball reaches the 2-meter area, you need to have your hands out of the water much like the drive-in shot.
  - a. Centering is also CRUCIAL; as you must be out of the cage and positioned directly between the ball and the middle of the goal. The block for one of these shots is more of a deflection than anything else, and any part of the body that can touch the ball and keep it out of the cage will be a successful result. {see Bercutt photo}
2. Positioning for the hole shot depends upon how the hole defender plays the offensive player. If the 2-meter guard overplays the sweep shot, you need to be positioned for the backhand, and vice versa. In the event of a backhand

- shot, you should try to block it with two hands, if possible. I like to wait until the hole player makes his complete move before reacting. Two helpful hints:
- a. Watch the 2-meter player's shoulders- he cannot shoot unless he dips or turns them.
  - b. Work with the 2 meter guard to move away from the offensive players tendencies and strengths.
3. If you are fortunate enough to get your hands or arms on this block, you should try to force the ball straight down to finish the save. The rebound is very important, and, your 2-meter guard should screen him/herself between the ball and you so as to allow time for the pick up.

Just as the 2-meter offensive players should constantly practice their shots, so too should you occasionally practice these type of shots. I hope there will not be too many facials!

### **E. Lobs.**

Anticipating when this variety of shot will be taken is the first key to blocking the lob shot. The lob shot itself moves at a much slower rate of speed and therefore gives you more time to get to it than the power shot. The field player who is a good lob shooter will often observe one or both of the following two faulty features in a goalie before attempting a lob:

- You are out of the cage too far (forward/backward).
- You are off-balance because you have reacted to the shooter's fakes.

Maintaining a good centering position (forward/backward) and staying on balance will deter most shooters from attempting the lob shot. There is one other situation where the likelihood of a lob is very high - when the shooter is at an angle where the power shot does not stand a good chance of scoring. Corner lob shots have a larger area margin for entry into the cage than do straight-on lob shots.

The technique for blocking the lob shot is different than all other shots because the goalie is moving back into the goal to intersect the arc of the lob. This movement is the opposite of the power shot where the goalie moves forward to "cut off the angle."

When the lob shot leaves the shooter's hand, you must pivot your torso to point one shoulder at the ball and the other toward the extreme opposite post of the cage. Your eyes need to always be on the ball as you turn 1/4 to move towards a spot 1-1/2-meter away and close to the opposite post. Then, you can either scull rapidly or take a quick stroke or two toward that spot. You should try to make these movements directly across the goal mouth. Above all else, **WAIT FOR THE BALL TO COME TO YOU!**

After reaching this spot and while the ball is in flight, you must extend the arm and fingers that are closest to the ball straight up. For example, if the lob comes from the your right, you should extend your right arm up; if the lob comes from the left, you should extend your left arm up. The opposite (non-extended) arm should continue to skull to provide you continued body support.

If at all possible, the lob is one shot that you should try to, in the following order:

- Catch the ball and gain control of it.

- Tip it out to a place in the water away from any immediate field players. This is a shot that, if rebounded, is an easy "garbage" rebound for a player to put in the goal.
- Tip the ball out of bounds (over the cross-bar) if there are opposing players who are in near pursuit of the ball.

### **F. 5 on 6 (down a player).**

This is a situation where the goalie needs to direct the defense. You should do this by:

1. Positioning the field players so that they "funnel" the shots to a blockable rectangle 2 1/2 by 1-meter in the middle of the cage. It is the your responsibility to communicate to the defensive players their respective positions and to lure the shooter into shooting at you. {see illustration B}
2. Having the field players properly positioned makes my job much easier because I don't have to rely on my hands to move from goal post to goal post, and I am therefore always in a ready position with my arms out of the water.
3. Throughout the passing sequence, it is important to know the opponents "money man." These shooters are those that will take shots in the clutch. Therefore, you need to be ready to block their shots anytime they have the ball or are about to catch it.
4. Direct the players towards aggressively swimming at the shooters, "knocking them down" immediately after they receive the ball.

### **G. Four Meters. (Penalty Throws)**

Psychologically, this shot should be looked at as a very positive chance for the goalie. In all instances the field player is EXPECTED to make the shot therefore, a block is an embarrassment to the shooter and his/her team. Chris Dorst (1980 & 1984 Olympian) was the master at penalty shot blocking. I believe that during his tenure at Stanford, he held an unbelievable 30% penalty throw blocking percentage. His strategy was to verbally and physically interrupt the field players concentration from the moment the penalty was called by the referee until the moment of the shot Believe me, he is good at the art of distraction.

The two styles of penalty shot blocking are:

- Moving towards one side of the cage as the best guess or
- Moving out towards the shooter with arms spread so as to eliminate the lower or upper portion of the goal.

More than 3/4 of all penalty shots go to the low corners. Therefore, you will want to try to cover as much of the surface of the water as possible after the whistle.

Once you have determined the area of the goal that you want to defend then timing is the next factor to consider. You can improve your chances by exaggerating the layout position with arms extended out wide, sculling, and anticipating the referee's whistle. (see Grubbs photo).

This anticipation of the whistle is similar to what the sprinter does at the start of the period. It involves slight movements towards the penalty throw shooter. The worst that can happen, short of being removed, is for the referee to assess you a major foul - one of three possible during the game. Be aware, that some shooters will take a longer windup than others before finally releasing the ball. Look at where

the players arm position is and how they are holding the ball. This will give you some indication as to how quickly the ball will be released.

It is of equal importance to have scouted the penalty shooters from the opposing team. Few players will deviate from their favorite corner each penalty shot. Before the game begins, you should know which style of blocking you will use and the timing required for each player. Most good shooters have different targets, but the same release point, so you can work to time the block.

Try to get the shooters thinking about their shot because thinking makes them anxious, which is a basic cause of most "bad" shots.

The 4-meter throw is a way for you to shine and, perhaps more importantly, give your team a lift by preventing what is expected to be a sure goal, while at the same time deflating the other team. Practice your routine daily.

#### **H. After the Save.**

1. Gain complete control of the ball while at the same time listening to the bench for information that a free player may be open. Between 1985-88 I was so fortunate to have Steve Heaston as a coach. Because his voice had so much resonance, I really never needed to look. I could always hear his voice above all else, telling me where our best fast break release existed. Relying on the coach and bench can be dangerous so at the same time you should work with your teammates to know where and when to deliver the ball and know tendencies of their counterattack.
2. Hold the ball high so you players will know that you have the ball while at the same time looking down the pool for possible passing opportunities. Always look down the deep right side of the pool first, the center of the pool second, the deep left side third, short right fourth and short left last. This order ensures that the ball will get the correct player fastest. You don't want to throw the ball to the short left when you may have a player open deep right. This order will become second nature. Visualize yourself looking down the pool to these locations and making perfect passes to each one.
3. If you have time, swim the ball out to the 3 or 4 meter line and then hold the ball high looking for an open man. This will make the pass shorter and more accurate. Be sure to keep your head up high because you may have to make an immediate "quick strike" throw.
4. It is sometimes a good idea to send a lesser important defensive player to offense at the end of the 35 must shoot clock. If you do this before the transition from defense to offense, it might really disrupt the other team's offense.

### **7. GAME SITUATIONS**

Time left in the quarter, game

- Guarding the player with the ball when there are one or more free players. Players with the worst angle - right hander on goalies left side.
- Stealing the ball - acting as another field player. Work with the defenders, especially those guarding 2 meters so they don't foul. There also must be pressure on the outside so as to prevent a shot or cross pass.
- Being rushed at by a field player while controlling a block or rebound. If you are attacked after a block. Swim the ball to the side of the goal with short strokes and elbows high. If you can catch the field player in the nose with an

elbow, do so. Any player that chases a goalie should pay a price. Whatever you do, get the ball away from the front of the goal.

- Pre-game warmup shooting as preparation for match and for entering game at any time. Watching the other team's shooters warming up for their fakes, release, location, and preferences.
- Baiting the opponent's shot. This means creating a spot in the cage that looks open for the shooter to go to. The effect might be to force the shooters to **think** while shooting. Thinking = anxiety = misses. When you win one mental confrontation, you have a good chance at an edge for the next one.



## **8. OUT OF THE WATER - GETTING THE BODY AND NOODLE READY FOR THE "BIG ONES"**

### **A. Notebooks, Observing opposition.**

Gaining experience includes keeping notes on the opposition, knowing who the best shooters are, where the opposition usually shoots, which players are left-handed, and game situations that usually result in certain type of shots. I like to play against opponents a number of times so that I can learn these tendencies. For 15 years I kept both written and mental notes of all of the teams that I had played through the years. I found that some of the veteran "stud" player's shots were easier to anticipate and block than the rookie shot simply because I knew the tendencies of the more veteran players through years of experience in playing against them.

### **B. Mental Rehearsal.**

Mental preparation and sharp concentration are required.

1. Pre-game. In the hours leading up to the game try to put yourself in a quiet environment with outside distractions. In other words, boyfriends and girlfriends and parents have to wait until after the game to discuss matter of business. Right then you are absorbed in thought of your opponent, their tendencies and the strategy that your team will use to beat them. I like to listen to my Walkman because it blocks out distractions and gets me psyched-up.
2. Visualization. You have probably noticed that I have already touched on the subject of visualization throughout this manual. Through visualization, if you have seen yourself block balls, make perfect passes, win games, you probably will do it in the real life game situation. Not being a doctor of Psychology, I believe that there is little difference between imagination and reality when it comes to sport. In the game, there is a sense of imagination. In your imagination there is a sense of reality. Dream states are real for your body - it will go through the same process it does when you are completely conscious.
3. Concentration. If you are able to concentrate well for entire game you have one of the most important characteristics for the position. Especially for younger, goalies it is easy to loose concentration in the middle of a game. I find that talking helps keep me focused. For more experienced, goalies, you can help direct the defense, try to steal some passes, while keeping your eye on the ball. For all goalies, I suggest that while the ball is inside the 8 yard line, all concentration should be on the ball. Most goalies tend to loose their concentration while the ball is at the other end and are unable to

refocus when the ball returns. Calling out the time on the shot clock will keep your mind in the game.

If you have difficulty concentrating for the entire practice try to remain focused for five minute stretches. Once you have mastered 5 minutes increase it to 7 and so on. There are many concentration drills that you can do while at home. Again, find what works best for you.

#### **D. Field players role in assisting goalie improvement.**

Have the players take shots from different spots - dry and wet. It is always beneficial to find a field player (preferably a good shooter) that is willing to get in the water with you - one on one - and try to "work you over". As this player shoots his or hers best shots, you are forced to improve in those areas. Hopefully this shooter has a lot of good shots so you are learning to block a wider variety of attempts.

#### **E. Stretching.** Note: Corso's stretching.

Always stretch. The groin and hip muscles and the shoulder muscles are an absolute must. All it takes is 15 minutes to stretch you entire body. Work stretching into your routine before practice starts while you are discussing the upcoming practice with your coach and teammates. The purpose of stretching is to increase flexibility, range of motion, decrease the amount of muscle soreness and prevent injury.

It is very important that, prior to stretching, the body be warm and the stretches be done statically, slowly, for ten to thirty seconds counts on each stretch. [NO BOUNCING!]

Muscles that need stretching on a daily basis (and what motion they are used for):

- Calf muscles (gastrocnemius) - These are located on the back part of your lower leg. They can be stretched by pushing against a wall with one of your legs stretched behind and the other in front of you. (Used in eggbeater kick)
- Lower back - In sitting position, bend from the waist and try to touch your fingers to your toes or your forehead to your knees. (Used in all blocking movements)
- Groin (Abductor, Adductor) - Standing position - split legs apart, lean one direction with your torso, and then back the other way. Sitting position, bend knees and bring soles of feet together. With your elbows on the inside of your knees, put pressure outward trying to touch knees to the floor. (Used in all blocking movements)
- Upper leg - front (Quadriceps) - Standing position - bring one leg back to your buttocks with your hand by grabbing at your ankle and lifting. Sitting position - bend knees with one or both feet under buttocks. If you use one foot, you need to be in the hurdler's position. Once in this position, lean your torso back as far as you can to a lying down posture.
- Arm and shoulder girdle - Bend arm behind head and pull this hand down with the opposite hand. Also, bend the straight arm across in front of the body by grabbing it at the elbow and pulling.

#### **F. Weight Training.**

I have not found one particular weight training exercise that drastically improves a goalie's ability to block the ball. If you weight train do it for overall body strength.

In other words, do not spend 1 hour increasing your leg strength and 10 minutes on your upper body. Consult with a specialist and have a workout created for you that will cover all of the muscle groups equally.

Do not bulk-up for this position. Sure the women may love it, but putting on any extra mass in your upper body will lessen your ability to get high out of the water and slow down your lateral movement. Focus your weight lifting to building up strength and quickness without adding bulk. In this case, you are probably dealing with high repetition and lower weight. Quickness can be practiced by higher repetition weight training with less resistance (weight).

## 9. EPILOGUE

"Do all of the preparation, suggestions and work mentioned in this book in order to avoid a goalies most embarrassing moment!! - - reaching back in the cage to retrieve the water polo ball."

Keep in mind also that although a goal scored on you may be embarrassing, if you try to learn from every goal and every loss, you will develop into a better goalie over time.

## 10. BIBLIOGRAPHY

Antilla, W.K.

Barr, David & Andrew Gordon. **Water Polo**. East Yorkshire, England: E.P. Publishing, Ltd., 1980.

Cutino, Peter J. and Dennis Bledsoe. **Polo: The Complete Manual for Player and Coach**. Los Angeles, CA.: Swimming World Publications, 1976.

Gallo, Rezső and Ivan Somlai. **Coaching Water Polo**. Ottawa, Canada: The Canadian Water Polo Association, Inc., 1977

Hale, Ralph (ed.). **The Complete Book of Water Polo**. New York: Simon & Schuster, Inc., 1986.

Hart, David. **Level II Coaching**. Ottawa, Canada: Canadian Water Polo Association, Inc., 1978.

Hines, Chuck.

Lambert, Arthur F. and Robert Gaughran. **The Technique of Water Polo**. North Hollywood, CA.: Swimming World Publications, 1969.

Nitzkowski, Monte. ***United States Tactical Water Polo***. Pittsburgh, PA.: Sports Support Syndicate, Inc., 1994.

Rajki, Béla.

Wiltens, James S. ***Individual Tactics in Water Polo***. New York, NY: A.S. Barnes and Company, 1978.