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ABOUT THIS MANUAL

INTRODUCTION
This manual was produced by USA Water Polo in collaboration with some of the best coaches from across the country both past, present and future. Further consultation and reference has been made to top coaching science resources available to guide coaches in developing holistic athletes and teams. The goal of this manual is to establish a reliable and ongoing resource for water polo coaches in America; from novice to expert, from developmental to established programs. This digital resource is to be shared in the spirit of growing water polo in America at the grassroots, age group, scholastic and national levels.

DR. WADE GILBERT
Dr. Gilbert is an internationally renowned coaching consultant and sport scientist, as well as an award-winning professor in the Department of Kinesiology at California State University, Fresno. His highly acclaimed book Coaching Better Every Season served as the guiding light to most of this manual. Although we did not directly collaborate with Dr. Gilbert when developing this manual, his book and lectures majorly influenced its content. Some portions are directly quoted, while others are summarized. We highly suggest all coaches use Dr. Gilbert research in their quest to improve as an educator and water polo coach. Dr. Gilbert’s full profile can be read by visiting his profile on the Fresno State Website.

ACKNOWLEDGEMENTS
This manual was written, edited, and produced by USA Water Polo: John Abdou and Drew Clute. Special recognition goes out to Brian Alexander for his efforts in writing Chapter 5: The Mental Game and Ian Davidson for editing early drafts of this manual, providing invaluable feedback and perspective.

USA Water Polo would like to also publicly thank the following coaches for their contributions made over time, both direct and indirect, to the development of the content used in this manual: Adam Krikorian, Bryan Lynton, Brett Ormsby, Dejan Udovicic, Dan Klatt, Guy Baker, Gavin Arroyo, Heather Moody, Jack Kocur, Kyle Kopp, Natalie (Golda) Benson, and Terry Schroeder.

USA Water Polo would also like to recognize the pioneers of our sport in America for their contributions in growing our sport. Their countless efforts made over the last several decades has put us in a position to produce the first ever USAWP Digital Coaching Manual.

THE MANUAL
This digital manual is intended to be a living document, not a finished product. As USA Water Polo updates the material presented in future versions, the hope is that it is done so in a collaborative process in order to fully represent the diversity of water polo across our nation. Please feel free to send submissions that can help us achieve this goal to dclute@usawaterpolo.org. Working together, we hope that everyone in the water polo community can collectively create a manual that becomes a powerful tool for developing and growing our sport.

“Individual commitment to a group effort – that’s what makes a team work, a company work, a society work, a civilization work.” - Vince Lombardi
REVIEWs

“This manual was produced by USA Water Polo in collaboration with some of the best coaches from across the country both past, present and future. Further consultation and reference has been made to top coaching science resources available to guide coaches in developing holistic athletes and teams. This digital resource is to be shared in the spirit of growing water polo in America at the grassroots, age group, scholastic and national levels.”

- John Abdou, Chief High Performance Officer USA Water Polo

“This manual provides a broad range of practical and timely information to run a team at the high school, club or age group level and have productive & effective practices. It is a necessary resource to develop into the best coach you can be. I highly recommend and endorse it.”

- Felix Mercado, Head Coach of Brown University & ACWPC President

“This manual provides the best coaching resource in the sport of water polo. The information is current, easy to follow, and hits on everything that a water polo coach needs to know in order to excel. I highly recommend that coaches of all levels take advantage of this manual and begin to implement the teachings within.”

- Brett Ormsby, USA Olympian and Pipeline National Team Coach

“Coaches aspire to be their best for their athletes, but it is difficult to be your best if you have a narrow scope through which to view your role as a coach, or if you have not had mentors to help build your foundation. This manual serves as an all-inclusive guide for coaches to learn or brush up on their technical and tactical skills, as well as guiding us through some skills that can help our respective programs turn the corner toward competitive greatness. I am thrilled that USAWP has created this manual, as it will serve to make our sport more organized, more respected, and more competitive. Our coaches and athletes around the country will directly benefit from utilizing this resource.”

- Natalie (Golda) Benson, USA Olympian, Hall of Famer, and Pipeline National Team Coach
COACHING IS TEACHING

“When one person teaches, two people learn” - Robert Heinlein
THE THREE COMPONENTS TO QUALITY COACHING

Video - Wade Gilbert: Principles of Quality Coaching
Video - Wade Gilbert: What Makes a Good Coach
Video - New Zealand's All-Blacks: Better People Make Better All-Blacks

THE 4-C’s
Competence, Confidence, Connection, and Character

In sport, **COMPETENCE** can be conceptualized as a high level of achievement, performance, or athletic ability. More specifically, sport competence can be broken down into three main dimensions: technical skills, tactical skills, and physical skills. Technical skills refer to an athlete’s ability to move and perform the tasks necessary to achieve success in their sport (e.g., passing, shooting, guarding, and skating). Tactical skills focus on the specific actions and decisions that athletes make during competition to gain an advantage over their opponents (e.g., decision-making, reading the play, and strategy). Finally, physical skills refer to physical fitness and functional qualities that allow athletes to perform sport skills and meet the sport’s physical demands (e.g., speed, agility, and endurance.

Sport **CONFIDENCE** is defined as “the belief or degree of certainty individuals possess about their ability to be successful in sport”. In the context of the 4C’s we were primarily concerned with trait sport confidence, which is the level of sport confidence that an individual usually possesses. The main function of this framework is to provide a method of measuring changes in developmental outcomes (the 4Cs) over an extended period of time (e.g., a season or time period of similar length). Therefore, in considering the construct of confidence, we are interested in whether an athlete’s sport experiences over time lead to significant lasting changes in sport confidence. If state sport confidence was measured, it would be difficult to determine whether an athlete’s level of confidence was solely a product of the specific situation when it was measured, or whether it reflected the athlete’s general level of confidence.

**CONNECTION** is conceptualized as a measure of the quality of relationships and degree of interaction with peers and coaches in the immediate sport environment. In order to promote PYD, adolescents need to engage in meaningful and positive relationships with the individuals in their environments. Given the significant differences between peer and coach-athlete relationships in sport, two different measures are proposed to assess these separate aspects of connection.

As previously mentioned, the caring and compassion constructs were found to be integrated within the conceptualization of **CHARACTER** development in the sport coaching and athlete development literature. Character can be defined in terms of moral development and sportspersonship. Specifically, character in sport is generally typified by the engagement in prosocial behaviors and avoidance of antisocial behaviors. Prosocial behaviors are voluntary actions intending to help or benefit others, for example helping an injured opponent. Antisocial behaviors, on the other hand, are voluntary actions intending to harm or disadvantage others, such as deliberately injuring an opponent.

PDF - Positive Youth Development - A Measurement Framework for Sport
2 COACHES KNOWLEDGE
Professional, Interpersonal, and Intrapersonal

1. Interpersonal Knowledge
   a. Being able to connect with people (level 1)
   b. Shape environment and build relationships

2. Intrapersonal Knowledge
   a. Knowledge of yourself, your strengths and weaknesses.
   b. Recognize you are authentic and strive to be the best YOU; not a version of someone else (level 2)
   c. Read/react to the “field”; lean and reflect.

3. Professional Knowledge
   a. Knowledge of your sport and how to teach it (level 3)
   b. Set vision and strategy, conduct practices, prepare for competition

3 COACHING CONTEXT
Who is your Audience?

Understanding who you are coaching. The best college coach who might have vast knowledge of their sport, might not be the best 10U coach as they lack the emotional intelligence to connect with 9 and 10 year olds.

Takeaways:
- You haven't taught until they've learned (John Wooden)
- Effective coaches, ultimately, are effective teachers
- Great coaches have knowledge of their professional, interpersonal and intrapersonal skills
- This knowledge allows them to develop their athletes on a path toward the 4-C’s
- They have proper context of who they are coaching

"Strive to be the coach you always wanted to play for." - Augie Guerrero
AN ATHLETE-CENTERED APPROACH

The best coaches always place athlete development at the core of their coaching philosophy. They view the coach-athlete relationship as a special partnership and value listening and supporting their athletes based on their needs. Aimee Boorman is the long time coach of Simone Biles and been quoted as saying, “It’s her gymnastics. I am just her guide.”

This often differs from both what is displayed by society, media, etc. as what is means to be a “successful” coach, as well as how most if us (probably) were coached ourselves growing up. We think of Bobby Knight and other authoritarian-style coaches that rule with an iron fist. But times have changed and research has proven that athlete-centered approach is the most effective way to coach. In fact, the International Sports Coaching Framework and National Standards for Sport Coaches in the United States list athlete-centred coaching as the number one characteristic of quality coaching.

On the previous page is the “Pyramid of Teaching Success in Sport”, which is best viewed as the coaches version of John Wooden’s original Pyramid of Success for athletes. The foundational tier (first tier) reinforces that athlete-centered coaching starts with a deep concern for connecting to and building quality relationships with athletes. “Love” and “Balance” were selected as the cornerstones of the pyramid because they are considered timeless and universal principles of athlete-centered coaching. The second tier focuses internally on self-awareness and self-growth. An athlete-centered coach must embrace continuous improvement of the ability to help their athletes meet their learning needs.

The third tier (which is considered the heart of the pyramid) captures the essence of teaching: pedagogical knowledge, subject knowledge and condition (context). Simply being knowledgeable about water polo (subject knowledge) is not enough; you must know how to teach it! In order to be an effective teacher (coach) of water polo, you have to develop an ability to translate what you know into meaningful learning experiences.

Courage and Commitment represent the fourth tier as they are needed to stay on course and ensure that coaching actions are consistent with an athlete-centred coaching philosophy. Finally, the fifth tier, or apex, of the pyramid is the teacher. Great coaches think of themselves first as teachers - teachers of sports and teachers of life. The ultimate characteristic of a coach who embodies an athlete-centered coaching philosophy is teaching, evident in one of Coach Wooden’s favorite sayings, “You haven’t taught until they’ve learned.”

Seven Components for Creating an Athlete-Centered Coaching Philosophy

1. Create a positive and fun sport environment.
2. Every player is valued, regardless of skill level or role on the team.
3. Rules are few, but expectations are clear and demanding.
4. Open, honest, and clear communication is essential (transparency).
5. Care about the player and work to understand them as people first.
6. Develop player self-esteem and love for the game.
7. Self-discipline and responsibility are essential for success.

This directly connects to developing core values and standards for your program (which is discussed further in section 2). The bottom line is this: when coaches make an effort to learn about their athlete’s lives outside of water polo, athlete’s enjoyment, commitment, and perceptions of their ability all increase. Examples of expectations pulled from some of the nation’s best athlete-centered coaches have been included in this manuals resources section. Please use them as a starting point when developing yours.

Website - How to Be an Athlete-Centered Coach (Bo Hanson)
CREATING POSITIVE ENVIRONMENTS

As a coach, you have an awesome responsibility to your players. They are influenced by every word they hear and every experience. They look to you as a role model. The goal always should be to provide a safe, respectful, positive, and competitive environment for all athletes. The following six points were pulled from USA Baseball's Online Education Center and outline how to create a safe and fun environment for all athletes.

1. Always give the same level of respect to everyone.
2. Never tolerate derogatory or belittling language between athletes.
3. Listen and display empathy to all athletes.
4. Respect any assistive devices, such as canes or wheelchairs, and always ask before moving assistive devices.
5. Remember that some disabilities may not be easily noticeable and can be hidden, such as dyslexia and Attention-Deficit/Hyperactivity Disorder.
6. Be considerate of the modifications to the game or the extra time athletes may need.

Neil Phillips is founder and executive director of Visible Men, a nonprofit organization whose mission is to elevate young athletes to new heights of achievement. Below are Phillips’ six keys to creating and maintaining a positive culture in a youth sports program, listed in order of importance:

1. **BE PROACTIVE.** Recognize that positive culture doesn’t just happen. Be able to thoroughly answer the question, “What do we want our program to stand for?”
2. **SPREAD THE WORD.** After determining the elements of the desired culture, it’s imperative to clearly communicate them to all members of the community.
3. **RECOGNIZE THE NEED FOR ACTION.** Though very few of us enjoy confrontation, we must prepare to take appropriate, non-confrontational action when necessary.
4. **RECRUIT ALLIES.** Communicate with other fans, league administrators, and team parents to build a consensus that something needs to be done.
5. **RELY ON STATED CONSEQUENCES.** To be useful and effective, codes of conduct must clearly and explicitly state the consequences that will follow unacceptable behavior.
6. **PREPARE IN ADVANCE.** It’s much easier for us to respond to a situation if we’ve prepared for it. We should think, ahead of time, how we might intervene if the need arises.

In his article entitled, “Maintaining a Positive Culture,” written for the Ice Skating Institute, Neil Phillips goes into more depth about the importance of positive environments and how to create them.

**Video** - [Youth Sports as a Development Zone](https://www.youtube.com/watch?v=Jim Thompson)

BEYOND Xs AND Os (WHAT ADMINISTRATORS EXPECT)

From the perspective of administrators (e.g., athletic directors, principals, etc.), great coaches have the following qualities in priority order:

1. Outstanding communicator
2. Well-organized
3. Well-prepared
4. Superior knowledge of specific sport

Notice that being a subject expert in your sport is ranked fourth on the list. An administrator's priorities are to run a successful program in the eyes of its institution’s benefactors. Winning and losing are seen as byproducts of the first three qualities. Expertise in your field doesn’t always translate into being a winning coach. Imagine a hospital
hiring doctors that are award-winning researchers in their fields—but are unorganized, unprepared for service, and have trouble communicating to patients and co-workers. Those doctors wouldn’t last very long in that hospital!

Your ability to be successful in the pool (wins and losses) and successful out of the pool (administrative and leadership) are directly correlated. Coaches that are organized, prepared, and can communicate their expertise in an effective manner will find success in and out of the pool.

Furthermore, when looking for your next coaching job as well as opportunities for professional development, the decision-makers (administrators) doing the hiring will look for the qualities defined in this chapter more than water polo technical and tactical knowledge.

DEVELOPING AND MENTORING YOUR COACHING STAFF

BEING A LIFELONG LEARNER
“Seek first to understand, then to be understood” - Steven Covey

Administrators seek out coaches with growth mindsets. As discussed in the previous chapter, an athlete’s mindset is as important as physical attributes. How fast they can swim, throw a ball, and even their water polo “IQ” only takes them so far; eventually, their mindsets become the ultimate determinant of success or failure.

This applies to coaches, too! The best coaches are as confident as they are receptive. They are willing to chart a course, but also understand that along the way they undoubtedly will need help. Carol Deck’s work on growth versus fixed mindsets doesn’t apply to athletes only; her lessons and message should resonate with coaches as well. Teams take on the personalities of the coaches, so if the expectation is that athletes become open-minded, life-long learners then coaches need to model this same behavior. Read the article below to see just the impact you can have on your assistant coaches, as well as the thousands of players they will eventually coach that you can have an indirect role in developing.

Article - Bill Walsh’s NFL Coaching Tree (ESPN)

ASSISTANT COACHES
Effectively developing assistant coaches is crucial for sustainable success as a head coach. Kay Yow, Hall of Fame North Carolina State Women’s Basketball head coach famously said the following regarding the development of assistant coaches:

“When a person becomes a head coach, there is nothing more critical than the staff they hire. If you’re going to take the time and make sure about something, do as great a job there as you possibly can because it will definitely impact your career as a head coach.”

Chris Fore from MaxPreps interviewed close to 200 head coaches all across America to identify what they value in good assistant coaches. 98% percent of the coaches were in the high school ranks, with just 2 percent being from college.

The following seven points were taken from Chris’ 2016 article 7 Keys To Being A Great Assistant Coach.
Find Some Way To Bring Value To The Program
Take charge of something that needs to be done without the head coach having to delegate it. What needs to be done that you can do? Surely there is something. What are you passionate about and good at doing within the program? I'm a "stats guy." I like numbers and stats. We had a coach who managed the stat girls who is no longer with the program. So, without even asking the head coach his permission, I simply took over this aspect of our program. It's a way that I bring value to the program, and solve a problem: managing the stat girls, ensuring their accuracy, submitting the stats to Max Preps, and keeping our database.

Do The Little Things That Need To Be Done
There are so many things that need to happen in every football program. Just one practice holds a list of tasks: hydration, setting up the field, cleaning up the field, supervising the locker room, locking up, putting together the practice schedule, creating the wristbands, communicating with teachers about grades, etc. etc. etc. Who is "in charge" of all of this? The head coach. How does it all happen? The assistants. Take some of these off the plate of the head coach, take ownership of them. Be the guy who gets his hands dirty, no job is too small.

Become An Expert
Another way to put this is: Be a pro! Never stop learning. If you coach defensive backs, become the best defensive backs coach in your league, conference and state. Your head coach wants experts on his staff. You might not be one now, but you can become an expert at coaching your position. The more experts who are on the staff, the better the program will be.

Know Your Role
Remember, you are an assistant coach. You are not the head coach. Be careful not to overstep your bounds. Your role is to be a loyal assistant to your boss. You might totally disagree with a part of the program, the direction of the program, how your boss conducts practice. None of that matters! It is not your program. Know your role, accept your role and become great at your role.

Don't Just Be A "Yes Person"
Head coaches don't want all of their coaches to sit around the table saying "yes, yes, yes." They want what is best for the program. They want to improve the program. And they don't always have the answers. This is where assistants come in. When the head coach asks for input, or when the door opens for you to give your input, do it. If you disagree with something, or have an idea to make something better, express that. Just remember, if your boss doesn't like it, he's the boss!

Be Dependable
The last thing that a head coach needs is to babysit his own assistants. If you say that you're going to do something for the program, do it, period. Make it happen. There were not many things more frustrating to me as a head coach as when an assistant tried to take something off my plate, and then either failed to do it, or did a bad job at it. Be on time, be prepared, and leave no doubt in the head coach's head that you will be who you say you will be.

Be Hungry
Take the bull by the horns. Take ownership for the position you're coaching, the side of the ball you're coaching, a special team, fundraising, program management or equipment. Be proactive to make the program better by having an appetite for success! Demonstrate to your boss that you want what is best for the program by taking initiative on a year round basis.

Article - 6 Keys to Maximizing Your Assistant Coaches
Article - Working with Assistant Coaches Effectively
Article - Working with Assistant Coaches: Building a Culture of Trust and Success
BUILDING YOUR FOUNDATION

“He who knows others is wise. He who knows himself is enlightened.” - Lao Tzu
BEGIN WITH THE END IN MIND
All organizations know where they want to go. But what about how they plan on getting there? We must start with the end in mind, then scaffold back and develop a plan on how you are going to get to our desired destination. This is where Purpose, Core Values, and Philosophies come into play. Without these key elements, all organizations, companies, teams, etc., are rudderless ships aimlessly adrift in an ocean too big to comprehend.

Article - Great Leaders Start With The End In Mind (Forbes)

CHARACTER → PROCESS → RESULTS
Most elite coaches believe that there are two types of character: performance and moral. Performance character encompasses skills that govern your relationship with yourself; moral character governs your relationships with others. A group of high-profile coaches were asked to define the overall goal of their respective teams. Answers varied, but the common theme revolved around maximizing the team's ability - which would lead to winning. They were then asked to identify three things that could get in the way of their teams maximizing their abilities. Most common among their answers were: selfishness, off-field decisions, toughness, team cohesion, negativity, and work ethic. The one common theme? None of the answers were sports-related; instead, they all were human related.

This begs the question: If our ultimate goal of winning (maximizing our ability) relies so much on these human issues, why aren’t we as coaches spending more time developing them? Elite coaches value character development as they recognize that character drives performance, which, in turn, ultimately drives results. However, developing character doesn’t just happen, nor is it preached for a week or two or randomly throughout a season.

Truth is manifested in who you are under duress. Your character as a coach is always on display, so how you demonstrate these character qualities must be consistent. The most important thing to understand is that you are not infallible nor do you need to present yourself as such. You make mistakes. The only way to effectively develop character within your players is to first model the behavior yourself.

Video - What Drives Winning? (Brett Ledbetter)
Video - Grading Character (Anson Dorrance)
Video - Building Your Inner Coach (Brett Ledbetter)

IDENTIFYING YOUR COACHING PURPOSE AND CORE VALUES
The first step in becoming a successful coach is to identify your purpose for coaching. A coaching purpose defines why you do what you do. It’s your fundamental reason for being a coach. NBA Hall of Fame coach Phil Jackson referred to this as the “window into your coaching soul.” Secondly, you should outline the core values that guide your program. These become the expectations and standards you and your athletes use to hold all involved accountable and build a culture of excellence. Your purpose and core values drive how you approach the art of coaching and what goals you will set with your athletes. They are the foundation for creating a winning team culture.

COACHING PURPOSE
In order to develop your coaching philosophy, you first must understand and be able to express why you coach and what principles will guide how you coach. A coaching purpose defines why you do why you do. It is your fundamental reason or being a coach. Yes - as coaches, we are competitive and we want to win. However, the best coaches in the world are driven by more than just winning; they want to win the right way. They want to win by a set of standards that align with a bigger picture.
Former NFL player and renowned motivational speaker Joe Ehrmann described how he came to define his purpose for coaching:

“Why do I coach? I coach to help boys become men of empathy and integrity who will lead, be responsible and change the world for good.” - Joe Ehrmann

Some questions to ask yourself when identifying your reasons (purpose) for coaching:

1. Why do I coach?
2. What are my fundamental reasons for being a coach?
3. What are my motivations for coaching?
4. What are my values?
5. What types of experiences do I want my athletes to have?
6. What is my definition of “success”?
7. What are my responsibilities to my athletes?
8. How should I discipline my athletes?
9. What are my ethical standards?

**AUTHENTICITY**

You will know when you have identified your purpose for coaching when it is inseparable from you as a person.

**WHY**: A calling to teach sport and life skills (commitment, teamwork, courage, discipline, etc.). --- > Purpose and Core Values

**HOW**: Demanding and efficient practices, competition management, team rituals and traditions (team diners, goal setting, athlete recognition, etc.). --- > Coaching Philosophy

**WHAT**: Better athletes and people compete to win in sport and life (play like a champion and become good citizens)

**Video** - [Ted Talk: Be a Man](https://www.ted.com/talks/joe_ehrmann_teaching_life_skills_to_men) (Joe Ehrmann)


**PPT** - [“Start with Why” powerpoint](https://www.coachesassociation.org/article/whats-your-why) (Simon Sinek)

**CORE VALUES**

Core Values can be grouped into three categories: relationships (building trust), behavioral (daily actions), and strategic (skills and tactics fundamental to achieving success). They are enduring standards that serve as stable guiding principles. They are also expectations that coaches and their athletes use to hold each other accountable in their quest to build a culture of excellence.

Anson Dorrance (head coach of women’s soccer at North Carolina) refers to his 12 Core Values as the “fabric” of his program. Each core value has a corresponding statement that captures its essence. These statements can be a few sentences or multiple paragraphs that include quotes from philosophers, poets, or even former players.

**PDF** - [UNC Women’s Soccer Team 12 core values](https://www.ansondorrance.com/unc_womens_soccer_core_values) (Anson Dorrance)
John Beilein (head men’s basketball coach, University of Michigan) has narrowed his core values into five “Program Pillars”:

1. **Unity** – We are going to be unified through thick and thin and everything. We're always going to put the team first. That's the Bo Schembechler "the team, the team, the team" philosophy
2. **Passion** – We want our teams to play with and love each other with passion.
3. **Appreciation** – We want our guys to have the attitude of gratitude. Whatever they do, there's an attitude of gratitude. We get free gear from Adidas it seems like every week. Well, we're going to have a little “thank you” where everybody's going to say thank you for receiving that gear.
4. **Integrity** – Some are born great, some achieve greatness, and some have greatness thrust upon them; but no legacy is better than your integrity and your honesty.
5. **Diligence** – We're going to be a hardworking team every day in our pursuit to be the best versions of us that we can possibly become.

Coaches gain credibility when they demonstrate to their athletes that they will not sacrifice their program’s core values for short-term gains. In an article published in the 2016 International Sport Coaching Journal, Chantal Vallee (head women’s basketball coach, University of Windsor - Canada) said a decision she made early in her career to suspend five athletes (due to violating team rules) was a defining moment in her quest to build a winning culture. She recognized that while suspending these five athletes was going to hurt their chances for immediate success (they were some of her better players), it demonstrated a far more important point: that no one person is above the team and the standards by which they live.

**Video** - Shaping the Outside (Brett Ledbetter)
**PDF** - Four Keys to Building a Championship Culture (2016 International Sport Coaching Journal)

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**DEVELOPING YOUR COACHING PHILOSOPHY**

“They don’t care how much you know until they know how much you care.” - Theodore Roosevelt

Developing a philosophy is important. It outlines how you will approach your role as a coach, and how you will ensure that you're staying true to your coaching purpose and core values. Your coaching philosophy will guide your day-to-day decisions and actions. But whatever you settle on as your coaching philosophy, it should be revisited frequently and evolve from year to year depending on your athletes and teams.

Tom Coughlin (American football coach) went through such a change during the 2007 NFL Season. Coughlin (known for his authoritarian style) was head coach of the New York Giants and found himself failing to reach his
players. He realized that his approach and philosophy—despite being effective earlier in his NFL coaching career—was no longer effective.

“I was a dinosaur, and if I was going to survive I had to adapt...You have to establish your principles and stick to them while also finding a way of making what you do relevant to the people you’re working with. You can’t expect to succeed by doing the same things the same way when the world around you is changing. I had to learn that.” - Tom Coughlin

Coach Coughlin was able to adjust his coaching philosophy so that he could reach that specific team (group of individuals). As a result, Coughlin regained his players’ trust, and the Giants went on to win the Super Bowl.

An analysis was done on the coaching philosophies of five high-performing coaches—all of whom are viewed as some of the all-time best in their sports. Below are the six common characteristics identified across their coaching philosophies:

1. Demonstrating genuine care for players and consideration of their individual needs.
2. Creating team togetherness and working on coach-athletes relationships.
3. Setting clear and defined roles for each player on the team.
5. Adopting a leadership approach that fits the team’s personality and values.
6. Maintaining perspective on their sport as just a game, not the sole purpose for life or anyone else’s existence.

The following is an example of a coaching philosophy. Remember: there is no one correct way to write a coaching philosophy. It can be written out (as with the following example) or in bullet point format. The important things are that it clearly states a) how you will approach your role as a coach and b) how you will ensure that you’re staying true to your coaching purpose and core values.

“As a coach, I am foremost a teacher. I strive to utilize every possible opportunity to teach the game and when possible the application of the broader lessons of life beyond sports. I understand that my most important mission is to be a good role model and value how I handle myself and treat others. I value showing up on time, working hard, and approaching all things with a growth mindset.”

PROMOTING ATHLETE BUY-IN
Core values are only effective when athletes connect with them. In order for athletes to adopt core values, they have to believe they’re relevant to them and their family (team), and not simply a list of words imposed on them by their coach. How this is done is where the “science” and “art” of coaching collide.

As demonstrated above, coach Beilein uses the acronym UNPAID to layout the core values for his program. When Mike Krzyzewski took over the USA Men’s Basketball National Team in 2005, he used a much more athlete-centric approach when establishing the team’s core values.

Together, Coach K, Kobe Bryant, LeBron James and the rest of Team USA developed their 12 Core Values, they dubbed their “Gold Standards”.

PDF - Gold Standards (USA Basketball)
PDF - Standards of Performance (Bill Walsh)
Video - Look Me in the Eyes (Mike Krzyzewski)
ORGANIZATION AND PLANNING

"A coach’s job is not over when the season ends… it only changes" - Morgan Wootten
FOUR QUARTER PLANNING

Successful coaches group their year into cycles (seasons or phases) in order to ensure they are maximizing their time and resources in their efforts to develop their program and players. Below you will find a mixture of Dr. Gilbert's 4-E's (examine, enact, enhance and evaluate) of cycle planning, as well as ideas for planning during each phase based on conversations with dozens of successful coaches. The purpose of this chapter is to analyze the macro-to-micro planning approach by grouping the year into four phases (each three months in length) so we can develop a process that leads us toward our end goals and gets us where we want to be as a team.

PHASE 1 - END OF SEASON (“EXAMINE”)

This is a time to evaluate your program based on a “strengths-based approach”. A comprehensive program evaluation requires a review of 1) coach, 2) athlete, and 3) program performance information. In addition to evaluating objective information (wins, losses, etc.), coaches should see feedback from others - both in their program and outside. This is also the time to recognize player and team accomplishments and build on program strengths.

Video - Wade Gilbert: Coaching Better Every Season - End-Season (Examine)

Program Evaluation
Meaningful program evaluations will provide answers to the following four questions:
1. How well did we model our purpose and core values?
2. How well did we build a culture of trust and cohesion?
3. How well did we develop athletes through quality training sessions?
4. How well did we prepare athletes to perform as their peak in competitions?

Coach Evaluation
Both deficits AND strengths should be identified and accounted for when evaluating ourselves and our assistant coaches. Spot the strengths! What was my best day of coaching this year? What made it my best? What do I bring to the table? Our culture? When coaches acknowledge and formally recognize the strengths of their players, programs, and themselves, they are building a culture of confidence and preparing to win every season.

Athlete Recognition
Make sure you take time to recognize those individuals and elements of the program that contribute significantly to its success, add to the culture, and live the program’s standards and core values. Naming a MVP is traditional, but how does it reinforce your core values? Giving awards that are connected to your core values accomplishes this and shows everyone what is truly valued in your program. Adding personalized comments to individuals who receive awards, but to every single member of the team, adds significance to the experience. Selflessness, work ethic, commitment, mental toughness, sacrifice for team/teammates, etc., are all things that should be recognized.

PDF - Program and Athlete Evaluations
PDF - End of Season Letter to Departing Athletes (Bob Ladouceur, De La Salle HS)
PHASE 2 - OFF SEASON (“ENHANCE”)

The off-season is the phase when successful coaches work diligently to enhance their coaching and programs. Although the off season is a time to recharge, the most successful coaches balance rest and recovery with deliberate learning designed to close high impact performance gaps. Coaches strengths are enhanced when coaches use the off-season to strengthen their learning network and build learning groups to tackle specific coaching needs and performance issues.

Video - Wade Gilbert: Coaching Better Every Season - Off-Season (Enhance)

“What matters most is what you learn after you know it all.” - John Wooden
“I have no special talent. I am only passionately curious.” - Albert Einstein

Personal Mastery
- Successful coaches have a deep-rooted passion for learning and an inherent curiosity about the “whys” and “hows”. (Personal Mastery)
- Coaches who exhibit personal mastery are self-driven to figure out why performance gaps exist and how they can close them. (Attend clinics, read books, network with coaches, etc.)
- 4 Characteristics of Personal Mastery: Industriousness (constant effort to improve), Curiosity (deep desire to know why), Resourcefulness (focused innovation), and Self-Examination (reflection on performance gaps)

Coach Wellness
- Start your day on “offense” by establishing early morning routines
  - This is your time to be selfish before your day
  - Charge your battery before you can charge other people’s batteries
- Builds confidence and starts your day on a positive note
- Exercise (even if it’s minimal)
  - Yoga, running, walking, lifting weights, riding a bike, etc.
- Meditation
  - Mindfulness - the ability to perceive ourselves, others and situations accurately.
  - Suspend all judgement and simply observe the thoughts and emotions that you are experiencing at the moment.
  - Accept your thoughts and become more aware of negative thoughts and less emotionally reactive.
  - Coach John Wooden’s “mindfulness creed” (below)

<table>
<thead>
<tr>
<th>John Wooden’s “Creed to Live By”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be true to yourself. Help others. Make each day your masterpiece. Drink deeply from good books. Make friendship a fine art. Build a shelter against a rainy day. Pray for guidance. Count and give thanks for your blessings.</td>
</tr>
</tbody>
</table>

Tactical/Technical Skills Planning
This is a phase of the year where you begin to lay down the groundwork for the upcoming season. We should begin to transition from a heavy focus of the individual and look to incorporate more compartmentalized training (2v2, 3v3, 4v4). This is not to say we abandon the aspects of individual development; rather this is the phase where we begin to blend together the individual with isolated tactical situations. This is a crucial stage as it begins to build the bridge between the individual and full tactical concepts. The counter attack should also be introduced in this phase, where athletes are introduced to the idea of counter attack lanes, lines, space, and structure.
PHASE 3 - PRE-SEASON (“ENVISION”)

The pre-season phase is a time to envision and build team culture. During this phase successful coaches review the core values and coaching philosophy that guides their work and, together with their athletes, set realistic but challenging goals. This is also a time to invest considerable time into team building, promoting trust and developing team standards.

Video - Wade Gilbert: Coaching Better Every Season - Pre-Season (Envision)

Tactical/Technical Skill Planning
Otherwise referred to as “pre-season.” This is the time to set out where you intend to go in the upcoming season. It’s an essential component of success. A good coach will have a vision and be able to outline core values and corresponding behavior standards for themselves and the team. This is a good time to develop your Team Standards and strengthen culture within the group. It’s also a great time to do a lot of team building. A great coach must be able to see what athletes could become and see things that aren’t there yet. It’s important to outline this vision and bring people with you.

Continue blending the individual into the bigger picture. Put less emphasis on running a “system” and more on free play. Allow athletes to try new things and challenge themselves. This doesn’t mean allowing a smaller attacker to play center but rather giving that smaller attacker freedom to take certain types of shots in certain situations. Be encouraging and promote an atmosphere that communicates to the athletes that failure is part of the journey toward growth.

PHASE 4 - IN-SEASON (“ENACT”)

The in season phase of coaching is used to enact the season plan. Successful coaches spend hours preparing detailed practice plans and competition strategies. Running effective practices requires an awareness of the same teaching and learning principles used in the classroom, along with long-term view of athlete development. Quality coaching during competitions depends in a coach’s ability to notice the performance trends and make the right tactical adjustments as the right time. Efficient practices and quality in-competition adjustments are surefire ways to guide athlete’s to peak performance.

Video - Wade Gilbert: Coaching Better Every Season - In-Season (Enact)

Principles Of Athlete Learning
The 15-P’s of Perfect Pedagogy provides coaches with the foundation for designing training sessions and how to use teachable moments effectively in competition settings.

Learning is the process that leads to the desired outcome. Each person experiences the process of learning is a unique way. A coach’s role is to create the right conditions for learning experience to occur, while appreciating that each athlete will experience every learning activity differently based on experience, knowledge, attitude, skills, and learning style.

PDF - 15-P’s of Perfect Pedagogy

Deliberate Practice
- Focuses on the type and quality of practice, not the volume.
- Must be focused and directly relevant to closing performance gaps.
- Deliberate practice only works when feedback is given to the athletes in real (or close to) time.
Specific Feedback
- Two types: Augmented (observations made by the coach) and Task-Intrinsic (observations made by the athlete).
- Coaches should encourage athletes to learn how to use their own task-intrinsic feedback as much as possible and limit their use of augmented feedback.
- This is important as athletes have limited amount or no access to coach-augmented feedback during competitions, so coaches need to teach their athletes how to make adjustments based on intrinsic feedback.
- Use “learning cues” to focus athlete’s attention (short words or phrases)
  - “Head on a swivel” - Be alert and maintain focus (ball, area, player, center).
  - “In the lane” - press your player do that they can’t receive the ball.
  - “On your legs” - remain balanced and on your legs when holding the ball; don’t fall backwards (or to your side) when shooting)

Motivating Athletes
The goal for coaches is to create learning activities that are just beyond the athlete’s current skill level but are perceived by the athletes to be at least within reach.

This state is known as the “sweet spot” known of athlete learning (formal term being proximal development). It offers the greatest chance of allowing athletes to experience moments of flow and nurture the intrinsic value they will attach to the training activity.

Video - [How to Practice Effectively](#)

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When athletes are...
- Focused on **PROVING** ability → Fixed Mindset
- Focused on **IMPROVING** ability → Growth Mindset
PLANNING A SEASON

**PRE-CONFERENCE (3-4 WEEKS)**
- Focus on conditioning. This will set the tone and establish the base that will carry you through the end of the season.
- Direct attention to position-specific training.
- Go back to focusing on the individual. However, hopefully you’re starting further down the road than before. Look to build on technique developed previously.
- Continue with team building. The group must be tight and connected.

**CONFERENCE/LEAGUE (3-4 WEEKS)**
- Begin to think about cutting back on conditioning. Less swimming and more circuit-type training, where water polo is interwoven with the conditioning.
- Individual maintenance should be mixed with full team tactics.
- Begin to implement plays (off the line, timeout, power play, etc.).
- Focus on preparing for league games as they come (week by week, opponent by opponent).

**CHAMPIONSHIP (3-4 WEEKS)**
- Recognize that you are who you are. Don’t change things too much as this communicates to your athletes that what you have become as a team wasn’t good enough to win in the postseason. This can be psychologically damaging to the athlete and erode confidence.
- Cleaning up “the little things.” While you don’t want to change who you are, this doesn’t mean we ignore areas of concern. If your 6v5 isn’t clicking, make sure additional focus is aimed at this during practice.
- Prepare for competition. This is usually where it’s win and advance or lose and go home. Each game matters. Be sure the team’s focus is on the task at hand. Incorporating mindfulness activities is beneficial during this phase.
- Adjusting or preemptively adjusting to plays that your opponents might be ready for (adding wrinkles to your tactics).
- Dive back into team building/bonding. Make sure the unit is as strong as it can be heading into the final stage of the season.

Link - [In-Season Planning Overview Calendar (example + template)](https://example.com/in-season-2023)

PLANNING A PRACTICE

Research shows that keeping athletes active, focused on a purpose and in the “sweet spot” during practices yields the best results. The following four points should be accounted for when practice planning:

- **Purposeful** Everyone should know the “why”
- **Variety** Keep athletes physical, mentally and emotionally engaged at all times
- **Competition** Sets high standards and makes practice fun. Athletes love to compete
- **Game Speed** Prepare your athlete to perform at game speed (make this comfortable)

John Wooden also used the following eight points to help guide his practice planning:

1. Fundamentals before creativity
2. Use variety
3. Teach new material at the start of practice
4. Transition quickly
5. Increasing complexity from practice to practice
6. Conditioning for learning
7. End practice on a positive note
8. Try to avoid altering a plan during the lesson
Practice should be well thought out, written, and planned down to the minute. This doesn’t mean be rigid and inflexible or intolerant of change! Be comfortable either sticking with a drill when more time is needed and also okay with moving on and not sacrificing other key aspects of your practice.

BEGIN WITH THE END IN MIND
This allows us to identify key things we want to master by the end of practice and build these things into every phase. For example, if the focus of practice is going to a 6x5, technical movements relating to the power play should be integrated (as specific as possible) into warm up/swimming, individual technical drills, passing, shooting, and small group work—ultimately building into the finished product (6x5). This approach can be done over the course of multiple practices as well. Each practice builds upon the previous practice, and each portion of practice should have common threads throughout. This should extend into the pre-practice meetings, chalk talk, and video as well. It’s valuable to discuss, diagram, walk through (both on land and in water) prior to live-time execution.

FLEXIBILITY IS IMPORTANT
While practices should always be scripted via a written plan, that plan must allow for deviation when needed. If things aren’t going the way you want them to go, coaches must be comfortable adapting to fit the needs of the moment. This often means sticking with something longer than planned and adjusting something else—or omitting it entirely. Too often coaches are too rigid in their planning and afraid to deviate from the script—even the athletes haven’t yet received/learned the current “lesson.” This is not a sign of failure; instead it should be viewed as a positive! It also most certainly isn’t a poor reflection on the athletes if they haven’t mastered things in the time you allotted for them. The job of teaching is done when students (i.e. athletes) have learned, regardless of how much time that takes.

ACCOUNT FOR TRANSITION
Transitions also are key to effective practice planning. The time spent practicing something specific is almost as important as planning out the time transitioning between drills, as these transitions correlate directly to games. When we’re lazy and unfocused during transitions in practice, we inevitably will do the same in games. Simply talking to your athletes beforehand helps with this. Telling them how long the practice will be and what the goals of the practice are helps athletes prepare mentally for practice. If you have an extremely long practice planned, then schedule a solid five-minute break at some point during practice where players can check out completely rather than checking out periodically between every portion of practice. It also can help to have an assistant coach set up the next drill in advance, or even lead it entirely.

VARIATION KEEPS THINGS FRESH
If your practice is always swim, pass, shoot, scrimmage—in that exact order—then your players are going to begin to train on auto-pilot. And that’s not good! It’s good from time to time to mix up the succession of things. There’s nothing wrong, for example, with getting to your main activity earlier in practice and deciding to finish with your conditioning. It’s also important to be creative. Don’t get stuck in a rut practicing the same exact things all the time. It’s OK to try something new that you’ve completely made up—it will get the players’ attention. If it works it could be a valuable part of your teaching moving forward and something that makes your players’ learning experience unique.

ACTIVE OBSERVATION
It’s not just enough to plan a practice: real coaching is active observation during training. As a coach, you must be taking notes, mental or otherwise. A big mistake often made by young coaches make is assigning a drill and then sitting down and not watching carefully. Coaches have to actively observe every aspect of training. This includes something as rudimentary as how a player kicks, their throwing mechanics, or how they move in the water. If a training session is void of an attentive coach, these mistakes go uncorrected. Great coaches are all over their players about the little details of the game, which—as we all know—add up to the big details. We try to be detail-oriented in every phase of our training from planning to execution.
MEASURING SUCCESS
Each drill should have a defined way success is measured. Everyone must know the drill’s purpose and game (or individual) application. As the coach and person evaluating, it’s also important that you identify what you want to focus on during the drill and what will you “let go.” For example, your athletes are practicing zone attack. During the drill, both attackers are entering the ball when they should be shooting it—and shooting it when they should be giving it to their center. This can drive a coach crazy!

However, there are a number of things the attackers are doing correctly, such as using space to create openings, using their bodies to hitch and lock defenders before passing, and maintaining their balance and stability. While shooting or entering the ball at the correct times is an important part of the zone attack, using space, maintaining balance, and using effective ball fakes are things that—when done consistently—will lead to success far more often than not.
THE MENTAL GAME

“The daily routine built on good habits and discipline separates the most successful from everyone else”
- Michael Jordan
THE MENTAL GAME

What’s the difference between “good” and “great”? It’s the mental game. Nothing here happens in a vacuum. All the skills below compliment each other to form a web of understanding of what it takes for athletes and the team to perform at their highest levels. Teams create culture and individual athletes create custom mental models for high performance.

There are some key components to coaching the mental game that need to be considered. The first is that no matter how frustrating an athlete or team can be, it’s not about you. It’s always about the needs of the athlete and team. We all have biases that influence our interactions and belief systems. Coaches operate with specific lenses to allow them to objectively and subjectively perform. Each coaching lens works through trained eyes connected to foundational training which constantly evolves as they gain new sport experiences.

Coaches also must remind themselves that they are not in the water playing and competing. The athletes’ experiences and results are truly their own, and coaches should strive to understand them. Communication is the most powerful tool a coach has, and it should be sharpened continuously throughout a coaches’ careers. Coaches who are able to speak a common language with their athletes have the highest success rates. Speaking a common language is about listening first, speaking second, challenging intellectually to the right degree, and simplifying the complexities of sport performance.

CONFIDENCE

There are many myths and misunderstandings about confidence. It’s pretty clear to people when we observe athletes with dominant confident body language who speak about themselves with an almost arrogant level of belief. But what happens if confidence is missing? How can athletes find the support they need to shift their belief systems and physical presence so that they can build their confidence?

Coaches need to understand confidence is a SKILL and nothing one is “born with.” Confidence also is very fragile and can fluctuate depending on how athletes and teams view progress and results. This is normal! It’s OK for athletes to experience disappointment in their results or skill sets, but only to a limit. It’s important to set time limits for how long athletes think about results because passing that limit can lead to disillusionment or a lack of hope that they will never improve. Try to stick to a general discipline of 20 seconds after a play during a game or practice and 3 hours after a game or practice. These are maximum time limits so anything shorter is great!

Confidence can be improved by focusing on micro-successes that lead to the macro-outcomes (what we want). It’s something you can improve with mindful and intentional actions. Just like we practice our shooting, passing, and swimming, we also must practice and build our confidence. Confidence is generally looked at in three domains:

1. General Self-Confidence
2. Sport-Specific Confidence
3. Skill-Based Confidence.

General self-confidence focuses on how athletes sees themselves in their world as well as the values they base their decisions on. Sport-specific confidence focuses on how they see their abilities as a whole in water polo and in the water polo culture. Skill-based confidence focuses on specific skills athletes believe are their strengths and others they need to improve. All three domains are connected, and each domain impacts the others to some degree to make the whole person. Breaking confidence apart into these three areas helps athletes identify targeted areas for improvement.
ATTENTION-FOCUS-CONCENTRATION

In a highly demanding sport such as water polo, a lot of emphasis is placed on the ability of the athletes to focus on the right things at the right times. Sport self-confidence and skill-based confidence demand the appropriate attention to actual cues in the sport and surroundings influencing performance. When coaching focus to athletes, instruct how to shift focus depending on the situational demands of what’s being coached.

Attention is the main scientific term used in this area. When athletes' attention is directed at the correct information (situation) in the correct moment (time), then they are focused. Therefore, since focus is the outcome, it’s important to break down attention control into a process. The process of working on attention control is to instruct when to be broadly aware (e.g., on a counter attack with a lot of moving variables) and when to be narrowly concentrated (e.g., on the hips of a defender or shoulder of the goalie). These also are both external (sensory) forms of attention.

There also are moments to be internal as well (a.k.a. thinking). The important aspect of this is when to analyze and when to assess so that actions aren’t delayed compared to the tempo of play. Usually anticipating the play is a very simplistic or narrow internal form of attention. The use of single cue words helps direct attention into action (e.g., “drive” or “weak”).

Coaches also must consider how to instruct the difference between focus and distractions. Distractions are essentially when athletes are attending to anything that isn’t related to the task at hand (or play). Distractions can be internal (e.g., overthinking) or external (e.g., looking at the crowd or the scoreboard during play). Shifting attention back to the best type of focus for high performance results in present-moment focus. That’s the ultimate goal and leads to the optimal level of confidence and performance.

Website - Focus Control: How Do You Stay Focused in the Heat of Competition? (Jim Taylor)

SELF-TALK

“Wherever our attention goes, energy flows” - James Redfield

Belief systems are the main ingredient to confidence. They build and reinforce habits of thinking and how athletes and teams prepare, perform, and reflect. Without knowing it, athletes can sabotage their success with self-defeating self-talk. Developing an honest practice of learning about one’s inner dialogue connected to how one acts should be a daily focus.

The biggest form of self-talk that interferes with athletes’ performance is Judgmental Self-Talk. This sounds like “what’s wrong with me?” or “why do I always do that?” And it’s too problem focused—especially during training and games—and interferes with their ability to make the next play. However, coaches sometimes believe it’s effective because it means athletes are trying to correct their mistakes in an effort to not repeat them. But in the end it becomes too inefficient.

The reality is that all athletes have had moments where, when things went wrong, they practiced negative self-talk or were self-critical and ruminated. It’s important to understand that “wherever our attention goes, energy flows.” In other words, we give power to where we direct our attention. But the best part about this is that we’re in control of where we give our attention.
There are two types of self-talk that we want our athletes to be focusing on during play:

Motivational Self-Talk:
Should occur during play stoppage, between quarters, or when athletes need to come up with a clutch play. It keeps the athletes’ mindsets and confidence directed the right way and focuses on what they’re about to achieve rather than what happened before. It helps them find extra energy when tired.
- “Come on Drew, you got this.”
- “I am the best shooter in the pool—no one can stop me.”
- “Let’s go! Commit!”

Instructional Self-Talk:
Using cue words, 1 to 3 words, or short phrases to focus on the execution of the actual play (shooting, passing, defending, counter attack, etc.). These are action-oriented words used during play. They need to center on the process of the play, not on the outcome they want to achieve. When practiced consistently, the mind will create mental movies (mental representations/images) that will help reinforce the action into automatic behaviors. This allows athletes to remain mindful and in the moment. However, when slumping or struggling and not using these cues, it’s important to bring them to mind intentionally until the right performance is found again.
- “Hips up.”
- “Slide right.”
- “Legs, legs, legs.”

ENERGY & INTENSITY
Every game situation requires athletes to regulate their nervous system so they find their zone state of optimal mental and physical readiness. The scientific term for this is “arousal.” Arousal connects to performance in an inverted U graph relationship for each individual on a team. At the highest range of this relationship athletes are at the right energy level to perform in a given situation. Coaches usually see this as a function of how the team prepares for games, and it should be thought about in warm-up and how one prepares mentally and physically. Coaches also should facilitate energizing or relaxation techniques during the stoppages in practice and games when athletes come over to the wall to receive instructions.

The most effective relaxation techniques are diaphragmatic breathing strategies used to regulate athletes’ nerves or the fight-or-flight response. This happens when the athletes’ arousal levels are too high. Energizing techniques are also considered activation strategies—such as jumping up and down on the pool deck or performing some quick explosive lunges in the pool. Most coaches default to yelling, but most of the time yelling is ineffective because of the threat it imposes on the athletes’ fight-or-flight mode (nerves/anxiety or fear). Younger athletes especially may not have developed the resources necessary to perform at high levels when operating out of fear.

Collectively for teams there must be a shared level of intensity when individuals prepare and come together as a team (collective intensity). This is where team routines become important and every member understands when they can work on their own and when it’s time to work with the team. Coaches and captains should plan their routines before games and between quarters during practice and actually rehearse them for the most benefit.
EMOTIONAL CONTROL

The old adage that the best athletes are emotionless is somewhat misleading. The most effective athletes are controlling their emotions while they compete in the present. Coaching emotional control in athletes is about helping them manage mental time travel. Sometimes athletes are unable to reset their focus on the next play when they’re too emotionally attached to the result of the past, or they’re too emotionally connected to what might happen too far in the future. Performance intensity suffers because attention is stuck on something that happened in the past or future and how the athletes relate those results to their own self-concept.

Help athletes develop their own emotional release routines. Coaches can build reset routines into their team culture and norms of behavior. An example could be “Raise the BARR” (Breath-Affirm-Release-Reset). This is something they can do in the flow of a game after mistakes or to prepare for key plays and help them return to the moment. The most effective way to release and reset is through high energy kinesthetic movement cues (e.g., going underwater or taking 3 hard strokes) so that athletes can shift to what’s happening in the here and now during the game or even practice. This also helps them bring the best energy and attitude with whatever they can offer physically at that time.

PERFORMANCE NERVES & ANXIETY

It’s normal to feel anxious, upset, disappointed, etc. It’s a misconception that “elite” athletes never feel this way. They do! However, what these athletes have figured out is how to recognize and regulate these thoughts, feelings, etc. They interpret them and make them work in their favor rather than being enslaved to them. In other words, it’s normal to feel those butterflies; the trick is making them fly in a formation of your choosing.

If athletes or performers become too energized or hyped, they tend to become anxious and tight. The technical term for this is “over arousal.” However, this is common and normal! Therefore, coach athletes to establish a controllable process and preparation routine they can consistently repeat even during game moments. Anxiety is related to distress overload and pressures relate to too much focus on the uncertainty of the outcome. Athletes need to understand and come to a conclusion on how to control the “controllables” as well as what “uncontrollables” they might be allowing to control them.

Athletes also should recognize the signs and symptoms of performance anxiety and over arousal. There are mental (cognitive) signs such as scattered thinking, lack of concentration on one thing, feeling overwhelmed, or forgetting. There also are physical (somatic) signs such as rapid heartbeat, tightness and tension in key muscle groups, or excessive sweating. As coaches educate athletes on the signs and symptoms, it helps to provide resources to relax the athletes’ mental and physical state so they can move back into their performance zone.
IMPROVEMENT & GROWTH MINDSET

Stanford researcher Dr. Carol Dweck found two types of “mindsets” when it comes to performance: The fixed mindset and the growth mindset.

Athletes with fixed mindsets usually judge situations in terms of how they reflect upon their abilities, which in their minds is permanent. They correlate performance with who they are as people (their identity). If they had a bad game, they must not be a good player. These athletes tend to avoid opportunities where failure is risked, as failing will expose their weaknesses and lack of ability. But athletes with growth mindsets view things much differently. They recognize that challenging themselves and risking failure is necessary for learning and improving. When they have a bad game, they see it as an opportunity to learn and improve.

It’s important to praise **effort over performance**, as this communicates to our athletes that effort drives performance. We want to establish an environment where our athletes understand their skills are there to be developed, cultivated, and grown. One thing we all can do right away is create a culture where we communicate to our athletes on a daily basis that failure is not an identity but an action. When failure becomes our identity, it is internalized and a fixed mindset will grow. In contrast, if we view failure as an action, we communicate that it is something from which we can learn.

<table>
<thead>
<tr>
<th><strong>It’s up to you!</strong></th>
<th><strong>FIXED MINDSET</strong></th>
<th><strong>GROWTH MINDSET</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DESIRE</strong></td>
<td>Look smart in every situation and prove myself over and over again. Never fail!</td>
<td>Stretch myself, take risks and learn. Bring on the challenges!</td>
</tr>
<tr>
<td><strong>EVALUATION OF SITUATIONS</strong></td>
<td>Will I succeed or fail? Will I look smart or dumb?</td>
<td>Will this allow me to grow? Will this help me overcome some of my challenges?</td>
</tr>
<tr>
<td><strong>DEALING WITH SETBACKS</strong></td>
<td>“I’m a failure” (identity) “I’m an idiot”</td>
<td>“I failed” (action) “I’ll try harder next time”</td>
</tr>
<tr>
<td><strong>CHALLENGES</strong></td>
<td>Avoid challenges, get defensive or give up easily.</td>
<td>Embrace challenges, persist in the face of setbacks.</td>
</tr>
<tr>
<td><strong>EFFORT</strong></td>
<td>Why bother? It’s not going to change anything.</td>
<td>Growth and learning require effort.</td>
</tr>
<tr>
<td><strong>CRITICISM</strong></td>
<td>Ignore constructive criticism.</td>
<td>Learn from criticism. How can I improve?</td>
</tr>
<tr>
<td><strong>SUCCESS OF OTHERS</strong></td>
<td>Feel threatened by the success of others. If you succeed, then I fail.</td>
<td>Finds lessons &amp; inspiration in other people's success.</td>
</tr>
<tr>
<td><strong>RESULT...</strong></td>
<td>Plateau early, achieve less than my full potential.</td>
<td>Reach ever-higher levels of achievement.</td>
</tr>
</tbody>
</table>

Athletes need to learn that their talent is hardly ever enough to determine success. Identifying ways to improve and an eagerness to learn from feedback, challenges, and mistakes determines the long-term success of the athletes and the team. Every role on the team is going to change. Science has found that the only limits to potential and growth are the mindset someone develops toward what it takes to succeed. Effort multiplied by itself at every new level of achievement makes the largest difference. Athletes selected as starters for your team should prove they deserve to maintain that role every day. The moment their effort declines or their attitude toward mistakes or feedback shows traits of being fixed, should trigger your reinforcement of cultural norms established for accountability.
The manner in which success is described—as well as the way it is reinforced—should be focused more on the opportunity to improve and grow rather than on how good the athletes naturally are. Coaches need to understand modeling a growth mindset in their role is a great example for their athletes. It’s easy and all too common to become defensive or resistant when receiving feedback and ideas. All members of the team need to resist the comfortable urge to comply with homeostasis in the way they think and act. Remember, it’s not average to seek excellence with regard to how people think, feel, and act since we’re all uniquely social beings and want to naturally find and take the path of least resistance.

Video - A Study on Praise and Mindset (Carol S. Dweck, Ph.D)
Video - Developing a Growth Mindset (Carol S. Dweck, Ph.D)
Video - Mindsets: Fixed Versus Growth (John Spencer)

PERFORMANCE JOURNALING
A great way to encourage the adoption of a growth mindset is to write in a daily performance journal. After each practice, game or week of training, journal 3 highlights, 2 low-lights, and 1 plan for improvement. All written entries should be objective or process focused. They need to be actionable for either the individual or the team so that something can be done about them. Athletes can take their lowlights and consider, through mental imagery practice, how to “edit the movie.” Change what happened in the mind’s eye. The narrator of the reflective practice is the person practicing, so they can control the story however they like.

Dedicated athletes take an active learning approach. Coaches can help journaling by discussing “What went right? What went wrong? Why was this ‘wrong’? (context of the situation matters!), and How do we practice what we want to improve?” When athletes are stuck, they need to be led to available resources to find their own answers. Not only does this help them develop strategies to creatively find solutions but also the autonomy awarded to them boosts their internal motivation (intrinsic motivation).

IMAGERY & VISUALIZATION
When athletes learn new drills, tactics, or fundamentals, the method through which they understand the information is a process of association to stored knowledge. Experts in every discipline of performance use a system of learning called “deliberate practice.” They develop mental representations of the information taught to them and then repeat the mental practice many times as they combine it with the physical action. Coaches provide feedback and need to understand how to effectively teach this system of learning (and even re-learning) through the mind’s eye. It’s commonly referred to as “visualization,” but the technical term is “imagery.”

Imagery combines all one’s sensory information to make the image as vivid as possible. There are five main senses, so we call the practice polysensory. Coach athletes to imagine the situations in terms of what is seen, heard, smelled, touched, and tasted. This could be the colors, temperatures, textures, residues, etc. It’s also important to control the images to the point where athletes are seeing themselves succeeding at all times. Since replaying mistakes or rehearsing moves that might have been unsuccessful is one way to use imagery, it’s also
important to imagine success rather than reinforce failure. Additional elements to effective imagery practice include discovering which perspective is used (first person or third person) and—as practice evolves—imagining sport experiences as close to the actual time they take to complete as possible.

Creating mental movies is essentially what’s being practiced. Consider the example of shot blocking. Athletes can feel their body with the correct body position as well as how the water feels on their skin, what the chlorine smells like, and perhaps water in their mouth. Then moving through the water, they see the shooter move into position and hear their teammates’ voices or the splash of the water as they shift over their hips to match arms. They can then imagine the angle of the goal behind them while moving their legs with high intensity to close out on the shooter. When athletes practice the skills correctly, coaches can encourage the practice of imagery by asking them to recognize how it felt and take a moment to replay it in their minds.

TEAM COHESION
Water polo is a co-active team sport, which means that successful performance requires the collaboration of a lot of people to “score” goals and win games. Generally, in American society the true nature of team sports is not reinforced at a high level. We live in an individualistic society based on rank and hierarchy. Coaches assume the challenging responsibility of connecting a broad range of unique personalities into a cohesive unit under one identity. The one identity can be summed up in the team’s culture. Team cohesion is the result of the strength of the culture.

The basic definition of a team is a group of individuals working together toward a common goal. The largest challenge in guiding a team on the path toward its common goal is to start with a unique mission that all members of the team find motivating enough to use to push themselves daily. Coaches combine passion with purpose to extend beyond each individual. There are two types of team cohesion:

- Social Cohesion—when the athletes are connecting outside of the skills and task-specific situations of the sport (e.g., the cool kids/“in-group”).
- Task Cohesion—connecting between teammates in the water through sport-specific situations (e.g., knowing where to look for teammates on a drive, or how they like the ball passed to them).

The most successful cultures are defined by operating values. A successful program should be led by a coach who clearly understands their own coaching philosophy (“why”) and style as well as a set of program values, norms of behavior, and traditions that establish it’s legacy. Each team within the program will move through stages of development starting with forming roles then storming through conflicts, into norming behaviors, then consistently high performance. Team members all should craft their own unique season mission and norms of behavior led by the athletes on the team who assume leadership roles. When everyone has a voice, team progress is shared.

LEADERSHIP
When studying successful teams, it’s evident that leadership is what makes them stick together through challenges and adversity. Leaders are the glue that keep the team culture intact. Leadership Is a role. However, the reality on a water polo team is that everyone will hold specific social and task-oriented responsibilities that require them to lead. Therefore, everyone is a leader in water polo.

Leadership is not something done to people. It’s a role done with people. Leaders range from the formal leadership roles of the coach and captains down to the informal leadership roles of moral support and practice team leaders. A team is comprised of a number of formal roles and informal roles. A coach’s job is to observe and break down the team and identify who is leading socially and who is leading in individual tasks/skills/situations.
Leadership roles have to be earned as well as constantly proven regarding why they’re deserved. There are two main types of leadership: Leaders by example lead from the front and model behavior others can follow. Vocal leaders learn how to communicate effectively to the team as a whole, as well as to individuals on the team, to make a positive difference.

Effective leaders aren’t always the team’s most talented players but are usually the athletes who embody the values of the program and can positively serve the needs of their teammates both as people and players. The role is a tremendous responsibility that’s not always glamorous. Often the leader is the last to be recognized and the first to be blamed for performance results.
“The daily routine built on good habits and discipline separates the most successful from everyone else”
- Michael Jordan
STRENGTH TRAINING & INJURY PREVENTION

Incorporating strength and conditioning components in your program is crucial for creating a well-rounded program. USA Water Polo, through its relationship with Bridge Athletics, has developed a series of resources to assist coaches in developing strength training and injury-prevention components for their programs. Strength training is a critical component for any serious water polo athlete. Obviously water polo is a unique sport that requires special consideration for any strength-training program.

Website - ODP Strength and Conditioning Resources (USAWP)

ACTIVE STRETCHING

The purpose of an active stretching warm-up is to prevent injury, as well as to improve overall athleticism and flexibility. Bridge Athletics has partnered with USA Water Polo to develop various resources for their members. The following two articles were produced by Bridge Athletics and provide a general dryland routine that will prepare the athlete for the water.

Website - Pre-Workout Warm-Up (Bridge Athletics)
Website - Movement Prep Warm-Up (Bridge Athletics)
Video - Active Stretching 1 (Performance Water Polo)
Video - Active Stretching 2 (Performance Water Polo)

SHOULders (BAND WORK)

*The importance of band work and how to implement

For all of these exercises do 10 to 15 reps, full range of motion, and then find a weak spot in the range of motion and do 15 to 20 seconds of fast paced/short arc work. Former Stanford coach Dante Dettamanti also provides a well-rounded shoulder routine in his book and serves as another great resource in developing shoulder routines for your athletes.

Video - Land Band Work (Performance Water Polo)
LEGs
There are a handful of beneficial leg exercises that can be done in the weight room, but the most effective way to develop the water polo player’s legs is through functional training—strengthening the legs with resistance exercises in the pool. Doing eggbeater drills while pushing on a teammate or holding a teammate up works well. Doing water jugs or heavy balls is also a great leg workout. Good leg exercises outside the water include running stairs or riding a bike. (Of course, on the stairs run up and walk down.) Be creative with your training! Instead of simply running up and down bleachers, athletes can hop on them two feet up.

WEIGHT LIFTING
It’s important that water polo athletes stress balance during strength training. Reduce the number of chest exercises and increase the number of back exercises. Less pushing and more pulling. A rule of thumb used by most coaches is having a 2:1 ratio of pull to push. For example, athletes do two sets of bench presses (pushing), they should do four sets of rows (pulling). Water polo athletes will get plenty of chest work in the pool. This is why you should have them do more back exercises in the weight room.

Video - How the U.S. Men's Water Polo Team Increases Full-Body Power and Strength
Website - An Introduction to Strength Training for Swimmers

CORE
Throwing a ball in land-based sports like baseball uses a closed-chain principle. This means that when you throw a baseball, you’re using muscles from your feet all the way to your shoulder. The power to throw a baseball is generated in this chain reaction from the ground up. But this closed chain doesn’t exist when throwing a ball in water polo, and a great deal of pressure is placed on your core and lower back region. This is where we develop the torque and power to throw a water polo ball.

Video - Increase Core Strength With the U.S. Water Polo Team
Website - STACK: 15 Core Strengthening Exercises for Athletes

Be aware that strength training will cause some muscle soreness. It’s important for each athlete to become in tune with his/her body and to be able to differentiate between muscle soreness and fatigue (as a result of a good workout) and pain that may be a precursor to injury. Listen to your body, and you will be healthier. It’s also important to try to vary your routines. In the early part of the year (pre-season) you may want to lift heavier weights and do fewer reps. But as the season progresses, I recommend lighter weights and more reps. Try to always train with a teammate. You not only will have more fun, but you can watch out for each other and make sure your training partner is doing the exercises properly.

NUTRITION
A proper eating program is just as important to an elite athlete’s success as a strength-training program. Think of your body as a car and food and drink as is fuel. Elite athletes are like finely tuned cars that require high-quality fuel to achieve optimal performance. Putting low-quality fuel into your body can lead to compromised health and poor performance.

The following nutritional information is designed to provide a foundation for getting the most out of your body during training and games. The hydration information was pulled from an Internet source (“Proper Hydration for Exercise” by Elizabeth Quinn, MS Sports Science) and reviewed by Dr. Ken Fujioka, the father of a former NCAA Division I water polo athlete. Dr. Fujioka specializes in endocrinology, diabetes, and metabolism.
SECTION I - HYDRATION

Before Exercise
- Drink 15-20 ounces of water 2-3 hours before exercise.
- Drink 8-10 ounces of water 10-15 minutes before exercise.
- What’s somewhat new is that you can actually drink 6-8 ounces of a sports drink before getting in the pool, specifically before high-intensity games.
- It turns out that the body actually will use some of the sugar in the sports drink before pulling from its own glycogen stores (which athletes want to save). This means athletes could drink a small carb drink of 6-8 ounces just before warm-ups.

During Exercise
- Drink 8-10 ounces of a sports drink every 10-15 min during exercise.
- For water sports, athletes will lose about 35 ounces of fluid per hour (at most). Most team members could drink 6-8 ounces. Bigger athletes should be drinking 8 ounces.
- If exercising longer than 90 minutes, drink 8-10 ounces of a sports drink (with no more than 8 percent carbohydrates) every 15 minutes.
- Some say if you’re exercising longer than 60 minutes (at high intensity), then consume sports drinks. The reason is because water polo is so much more intense than any other sport.
- For a game (duration about an hour), 6-8 ounces of sports drink every 15 minutes is the goal, as it will facilitate replacement of electrolytes and glycogen.

After Exercise
- Weigh yourself before and after exercise and replace fluid losses.
- Drink 16 ounces of water for every one pound lost.
- Consume a 4:1 ratio of carbohydrate to protein within 2 hours after exercise to replenish glycogen stores. But for recovery, studies show that a bit more protein is needed, so make the ratio 2:1 carbohydrates to protein and a lot more salt at about half gram per liter.

Easy hydration guideline: 15-20 ounces of water over the course of 2-3 hours prior to training/game; 6-8 ounces of sports drink just prior to training/game and then every 15 minutes during exercise; 8 ounces of chocolate milk immediately following training/game; another 8 ounces an hour later.

SECTION II - DAILY FOOD INTAKE

Healthy snacking throughout the day is important. Examples include peanut butter and jelly sandwiches, turkey sandwiches, hard-boiled eggs, yogurt and granola, apple slices, bananas, trail mix, almonds, dried fruit, cottage cheese, and instant oatmeal. Make sure every meal includes protein. Fish and chicken are best, but pork and beef are fine also. Protein intake is important for strength gains. Your body can break down only so much protein at one time, so it needs to be consumed consistently throughout the day. A protein shake with 50 grams of protein taken once a day won’t get the job done.

Make sure every meal has a good complex carbohydrate. Examples include: baked potato, brown rice, or pasta. Try to add a salad or steamed vegetables to dinner each night. Eat plenty of fresh fruits and vegetables; focus on what you like rather than trying to force down something you hate (e.g., spinach or broccoli).

Athletes don’t necessarily have to avoid junk food (candy and other sweets, pizza, French fries, fried food, fast food, soda, etc.). Age-group and high school athletes are growing like weeds and can get away with eating junk and do fine. For them, it’s just a game of taking calories in to match the huge number used for growth and burned in practice. But other kids who are done growing and put on fat quickly will have to avoid these foods.
SECTION III - RECOVERY DRINKS AND PROTEIN SUPPLEMENTS

Consuming recovery drinks after training workouts are a good way to replace what was lost during a workout. The body needs a certain type of fuel and within a specific amount of time (less than an hour) in order to recover properly. Most kids will need about 50 to 70 grams of carbs over 4 hours with about 25 to 35 grams of protein over this same period. In regard to "less than an hour," think in terms of them needing 15 to 20 grams of carbs in the first hour. They can then spread out the rest of the 50 to 70 over the next three hours. They would do well with 20 to 30 grams of protein over those four hours. So if they eat dinner or lunch, then they’ll probably get that amount of protein. But if it’s just fluid intake, then they’ll need protein in the drink. The current rage in sports recovery drinks is low-fat chocolate milk, and actually the data is pretty solid.

Eight ounces of chocolate milk has 25 to 30 grams of carbs and about 10 grams of protein. If kids have one drink after a hard practice and then another one in the next hour or two, that will be fine for most players. Recovery drinks are more important than protein in regard to not feeling negative effects the following day. Athletes don’t need a lot of protein following their workouts in the pool (25-35 grams is good). What often works is kids going out to eat after practice, so they’ll get their protein needs met and can consume a simple carbohydrate drink just to reload the glycogen. For this all the sports drinks work.

Note: if athletes get in a bunch of carbs right after workout, the protein does not matter that much as high loads of carbs can take away most of the immediate protein needs until they eat a meal.

Electrolytes: This area is wide open, and there are no great current recommendations other than electrolytes are good—but we don’t know to what degree they’re good. Too much sodium is generally not a problem in athletes, and they often will need the sodium in these drinks. So any of the balanced drinks (Gatorade, Powerade, etc.) are fine. Healthy snacking in addition to the recovery drink is important immediately after workouts. Any bar of food that has some protein (not a lot—5 to 10 grams) and a fair amount of carbs (15 to 30) is fine.

Protein Supplements: Surprisingly, either powder or pre-made works well, as the digestive tract will tear down the proteins to basic amino acids (the building blocks of protein), absorb them into the bloodstream, and then distribute them throughout the body. The protein supplement should be take throughout the day and doesn’t need to be taken right after weights. Boys instead should consume carbs right after lifting to refill glycogen stores. Rebuilding and use of protein should occur throughout the next few days—so yes, spreading it out is probably better.

I get my share of high school kids who "need to get bigger" for a college sport, and the trick is to have reasonable protein throughout the day but to push the carbs to drive up insulin. The reason for this is that insulin in adolescents is good for muscle growth (actually a big growth factor). The best source for protein is still food: eggs (no need to worry about cholesterol at their age, as they will use it and build with it), beef, chicken, fish, and dairy. If the player is a vegetarian, then soy is the best choice.

VEGAN & VEGETARIAN DIETS FOR ATHLETES

*The information below was authored by Charlotte Furman for the University of Washington and adapted for use in this manual.

Can a plant-based diet meet the nutritional needs of an athlete? The position statement of the Academy of Nutrition and Dietetics states: “To train and perform optimally, athletes of all levels—from recreational to elite—should consume a diet comprised of wholesome foods high in carbohydrate, low to moderate in fat, and adequate in protein, vitamins, minerals, and fluid. A vegetarian diet easily meets these needs and offers additional health and performance advantages.”

For all athletes, adequate caloric intake is required to provide energy for cells and muscles. Because athletes are burning more energy, they need to consume more calories to maintain energy balance. Eating enough calories
allows the body to use protein to build muscle instead of using it as a source of energy. Calorie needs will vary based on gender, body size/composition, age, and activity level.

Calories come from the macronutrients we eat (carbohydrates, fats, protein). Because a vegetarian diet is typically high in carbohydrates and low in fat, it’s well suited to meeting an athlete’s needs. Each day make sure to eat a wide variety of foods and a wide variety of different colored fruits and vegetables to ensure you’re taking in a variety of nutrients.

Carbs should come from a variety of sources, including whole grains such as brown rice, fruits, vegetables, and legumes. These complex carbs provide fiber, protein, vitamins and minerals, and antioxidants that can help protect the body from the stress of exercise. It’s important that athletes eat post-workout (between 30 minutes to 2 hours) to replenish muscle and liver glycogen stores. A piece of fruit, fruit juice, or a fluid replacement beverage makes a good post-workout snack, followed by a mixed high-carbohydrate and protein meal (examples include pasta with lentil spaghetti sauce, tofu with vegetables and rice, or a mini bean burrito).

**Website** - [Sports Nutrition Guidelines for the Vegetarian](https://www.plantbaseddiet.com/sports-nutrition-guidelines-for-the-vegetarian) (Enette Larson, Ph.D., R.D., CSSD)

One of the most frequent questions asked of vegans, especially vegan athletes, is how they get enough protein. Adequate protein intake is needed for maintenance and growth of cells, organs, and muscles, as well as for the immune system. Inadequate intake of protein can cause fatigue and loss of muscle mass. Daily protein requirements for the vegetarian athlete range from 1.3-1.7g/kg, a number that’s quite achievable from a plant-based diet. For a 180-pound male, this would be in the range of 105-125g of protein/day.

Proteins are made of chains of amino acids, and in addition to meeting overall protein needs, it is also important to have adequate intake of the individual essential amino acids. Soy (tofu, tempeh, edamame), seitan, lentils, and other legumes all provide good sources of the amino acid lysine, which is generally low in other plant foods. Other sources of protein in the vegan diet include nuts and seeds, whole grains, and vegetables. For example, a breakfast of two cups of oatmeal, a half cup of soymilk, an ounce of almonds, and a slice of wheat toast with peanut butter provides 30 grams of protein.

Fats provide energy, essential fatty acids, and fat-soluble vitamins (vitamins A, E, and K). Dietary fats also help athletes meet their caloric needs, as they’re the most calorically dense macronutrient. Saturated fats—which are found mostly in animal products and tropical oils—should be limited as they’ve been shown to increase the risk of cardiovascular disease and stroke. In order to increase your intake of beneficial Omega 3 fatty acids and monounsaturated fats, choose canola, olive, or avocado oils to bake and cook with, and incorporate walnuts, ground flaxseed, and other nuts into your daily diet.

In addition to getting enough calories and protein, several micronutrients require additional attention in the vegetarian athlete’s diet:

**IRON**

Iron found in plant foods is not as well absorbed as iron in meat, but it’s possible to get enough iron from a well-balanced vegan diet. Iron-rich foods include dark green vegetables such as broccoli, dried fruits, legumes (lentils, dried peas/beans, tofu), and whole and enriched grain products. Cooking with a cast-iron skillet can also increase the iron content of foods. Eating iron-containing foods in conjunction with foods high in vitamin C improves iron absorption. Some good ways to increase iron intake include drinking a small glass of orange juice with your morning oatmeal, sprinkling pumpkin seeds on your soup and salads, and combining tomatoes (high in vitamin C) with high-iron foods such as beans.

**Website** - [Iron Rich Foods](https://www.nidcd.nih.gov/health/iron) (National Institute of Health)
VITAMIN B12
Vitamin B12 is involved in the formation of red blood cells, protein metabolism, and helps maintain the central nervous system. Sources of B12 in the vegan diet include fortified grain products and nutritional yeast (unless they are fortified, plant foods do not contain vitamin B12). It’s recommended that vegetarians and vegans eat supplemented foods or take a B12 supplement. The recommended daily amount of B12 is 2.4 mcg/day for those 14-64 years old. The recommended supplementation for vegans is 2-3.5 mcg of B12 twice per day, or 25-100 mcg once per day.

CALCIUM AND VITAMIN D
Calcium and vitamin D are both important for maintaining bone health. For adults up to 50 years old, the daily recommended intake of calcium is 1,000 mg; for vitamin D it’s 600 IU. Vegetarians and vegans should aim for the recommended daily intake of both. Calcium can be obtained through foods such as calcium-set tofu, fortified orange juice, or fortified non-dairy milks, as well as blackstrap molasses. Leafy greens high in absorbable calcium include kale, mustard greens, Bok Choy, turnip greens, collard greens, and watercress. Aim to eat at least three servings of these high calcium foods daily. Vitamin D sources are limited in the vegan diet, so especially in areas with limited sunlight, consider taking a supplement of 600-1,000 IU of vitamin D.

ADDITIONAL RESOURCES (LINKS)
Eating Frequency Fact Sheet, Eating on the Road, Energy Availability Fact Sheet, Fueling During Exercise Fact Sheet, Fueling for Recovery Fact Sheet, Nutrition Facts Label Fact Sheet, Vegetarian Eating for the Student-Athlete, Understanding Dietary Supplements, USOC Nutrition Information, USOC Recipe List

CONDITIONING FOR THE WATER POLO ATHLETE

SWIM TRAINING FOR WATER POLO PLAYERS
Elite-level coaches agree that quickness in the water, as well as water polo savvy, are far more important for the water polo player to develop. Sure, there will be times where putting on the goggles and doing actual swim sets is appropriate. But the more we can engage our athletes and have them train in an environment that best replicates the environment they’ll be asked to perform in, the better. There are no starting blocks in water polo, no stopwatches, flip turns, etc. So why train them like they’re swimmers when you want to develop water polo players?

Dante Dettamanti was quoted in 2008 saying the following regarding his thoughts on swim training and the water polo athlete:

“It would be a mistake to train a water polo player like a middle or long distance swimmer. Training as a sprinter and then adding the nuances of playing water polo, such as heads-up swimming, eggbeater kick, bursts of speed, changing direction, etc., would be much more effective for training the water polo player.”

Dante recommends in his book “Water Polo Coaches Series - Book 1” the following when utilizing ultra-short swim sets to condition water polo players:

1. All sets should be performed with 1:1 work to rest ratios.
2. The work interval should be somewhere between :05 - :15 seconds.
3. The sprints should start from a horizontal position in the water and performed with the head out of the water.
4. Sets of this sort can be performed daily during the competitive season, including prior to a game, without the debilitating effects of lactate accumulation and glycogen depletion.
5. Typical sets include 10-40 reps of distances of 10, 15, 20, 25, and 30 yards.
6. No additional swim training is required during a practice as long as the coach also utilizes water polo related conditioning drills, counter attack training, and gamerelated scrimmages.
7. An all-out 100% effort is required of all swims.
An eighth point could be added to this list: make it fun! Conditioning is tough, both physically and mentally. The best thing you could do is to provide opportunities to teach your athletes to compete. A great example of this would be as follows:

Three players to a team with the first on the starting block. When the pace clock hits double zero, you blow your whistle and this athlete dives in and sprints 100 yards. As the first player is swimming their 100, the second player gets on the block. When the first swimmer hits the wall, the second swimmer dives in and swims their 100. The first player gets out and rests and the third player prepares for their swim. This cycle is repeated 4-8 times (depending on how much you want to do).

PDF - Sprint Salo: A Cerebral Approach to Training for Peak Swimming Performance (Dave Salo)
Website - Training for Water Polo (Dante Dettamanti)

CIRCUIT TRAINING
While swim training does have its place in water polo, circuit training is great as it prepares them for the versatile necessities of our sport. The best part about circuit training is the endless possibilities that can be organized to address specific areas of need. For example, a circuit largely could encompass swimming and legs exercises, or it could involve some sprinting and shooting/passing to develop the vertical game.

Video - Water Polo Circuit Training & Conditioning (Performance Water Polo)
Website - Swimming Speed vs. Quickness and Water Polo Savvy (Terry Schroeder)

DEVELOPING BALANCE AND STABILITY
When we talk about athleticism in water polo, we’re really talking about how an athlete moves, as well as that athlete’s overall balance in the water. Being balanced in the water gives an athlete stability, which in turn allows the player to move fluently. Stability gives the player control over his or her body and thus more decision-making power. Good players maintain their balance and, when lost, quickly regain their stability throughout a game. The only way to master this skill set is to practice it. A few ways to develop balance and stability include:

1. Spidering. This will teach athletes how to work efficiently while maintaining balance and stability in the horizontal position. Athletes will lay on their stomachs with their hands sculling and legs eggbeatering. The player’s chest and stomach should be angled toward the bottom of the pool and slightly above their hips (in other words, their hips, back, and shoulders are not flat).

2. Skating. Building from Spidering, the athlete should begin in the same position in the water. The player will then give a strong breast kick 45 degrees to the left or right, reaching with the lead hand. The chin should follow the finger tips. It’s very important that as this movement runs its course and momentum begins to slow, the player gathers his or her legs, and resets his or her body back into the starting position. This is key as the player is now prepared for what might come next.

3. Rainbow Self-Passing. In the vertical position with eggbeatering legs, begin with arms to the side, on the water, with the ball in one hand. As you progress forward in the vertical position, eggbeatering to provide stability, pass the ball up and over your head, catching the ball with the other hand.

4. Controlled Passing. This should be done in groups of three. Have athletes stay 2 inches above their normal passing position in the water (i.e., they elevate their entire body 2 inches higher in the water and perform the entire drill this way). Then have them pass clockwise, first for 5 minutes and then repeat the drill counter clockwise after a short break. When the athletes are working their legs, they are much more likely to stay on balance with good stability.
5. **Bad Pass Drill.** This drill is best done in groups of two. The player throwing the pass purposefully throws a bad pass. The pass should be catchable but out of normal range to the left or right. The goal is to force the receiver off balance and make him or her receive the ball off balance and then recover and quickly find balance before making the next pass. This is a great drill for teaching awareness. The players go from balance to off balance back to balance. Once again, focus on the legs. They should go from an eggbeater kick to a breaststroke kick and back to an eggbeater kick as they find their balance.

All passing drills should be done with a coach giving constant feedback and concentration. These are opportunities to develop fundamental skills that teach body balance, and repetition is the best way to build good habits. This cannot be done without feedback and concentration. Players should focus on finding their balance before they pass the ball. Basic body position is essential for playing water polo, and it’s the foundation for all movements in the water. Work on finding your balance in the water. This will allow you to play this great game at the highest level.
CHAPTER 6  I  USA WATER POLO COACHES MANUAL

TECHNICAL DRILLS & SKILLS

“Proper technique is neither magical or mysterious; it is the natural consequence of consistently applying the basic fundamentals” - Jim Rohn
ABOUT THIS CHAPTER

The skills and videos listed below are intended to offer a general, holistic approach to athlete development in both the offensive and defensive phases of the game. There are many additional videos along with information available online that either build on or supplement what’s outlined in this chapter. You are encouraged to seek additional resources to broaden your knowledge of technical skills so you can teach them to your players. As updated versions of this manual are released, more skills and drills with video resources will be included to help build your coaching library.

OFFENSIVE SKILLS & DRILLS

CENTER-FORWARD
- Center Base Position (CBP)
- CBP Slow to Fast
- CBP Jellyfish
- CBP Backup
- Side Seal 360 Spin
- Reverse Scull w/ Ball
- Attacking Inside Water
- Shooting Drill 1
- Shooting Drill 2
- Shooting Drill 3
- Shooting Drill 4

Leg Fitness Drill
- 2m Jug Shots
- Attacking the Quick

PASSING
- Rainbow Self Passing
- Tip to Yourself
- Kick to Ball
- Passing

BALL SKILLS
- Ball Handling
- Reverse Sculling w/ Ball
- Attacking Inside Water

SHOOTING
- Tripod Positioning
- Throwing Base Position

PERIMETER ATTACKING
- Gap Drives

DEFENSIVE SKILLS & DRILLS

CENTER-DEFENDER
- Pendulum Swing
- Inside Swim Around
- Inside Spin Around
- Inside Swim + Spin Around
- 1-Arm Swim Around
- Outside Swim Around
- Outside Spin Around
- Russian 2m Defense Drill

ON-BALL PERIMETER PRESS
- Palm Faced Lunges
- Palm Faced Lunges w/ Spin
- 2 Short 1 Long
- 2 Short 1 Long w/ Spin
- On-Ball Press 1x1
- Press Base Position
- Perimeter Defense
- Defensive Movements

SHOT BLOCKING, 5-MAN & ZONE SKILLS
- Wall Drills
- Shot Blocking
- Base Position
- Closeout
- Knockdown
- Backskate

OFF-BALL PERIMETER PRESS
- Press Base Position
- Skating
- Russian 2m Defense Drill
- Reverse Sculling

ADDITIONAL ONLINE VIDEO RESOURCES

- USAWP High Performance Education
- Olympic Development Program Videos 2.0
- Performance Water Polo
DEFENSIVE TACTICS & PHILOSOPHIES

“None of us is as smart as all of us” - Ken Blanchard
NUMBERING SYSTEM

The numbering system to the right is most commonly referred to as the "American Numbering System."

It begins with position x1 on the left side of the pool at 2 meters. It then continues around the perimeter to the opposite side with position x5, and then finishes inside the box with the center defender (position x6).

PRINCIPLES OF A SOUND DEFENSE

A GREAT DEFENSE LEADS TO A GREAT COUNTER ATTACK
- The defense and the counter attack are directly connected.
- The threat of the counter attack can enhance the defense.
- The counter attack should flow directly into the front court attack.

THE COLLECTIVE STOPS THE OPPONENT
- Each player must be committed to executing his or her defensive responsibilities.
- Just one responsibility improperly executed will break down the defense and makes us all vulnerable.

BPACC AWARENESS
- Know where the BALL is located.
- Know where your PLAYER is and what that player is preparing to do.
- Know what’s going on in your AREA.
- Know what the situation is at the CENTER position.
- Know the time on the CLOCK—this (along with the situation) dictates decision-making.

TECHNIQUE AND POSITIONING
- Most defensive mistakes are created by poor technique, positioning, or both.
- Consistently emphasize during practice the importance of correct technique and positioning.
- Defensive excellence is achieved by consistently practicing correct technique and positioning with the goal that athletes will instinctively execute correct technique and positioning in the heat of the game.

GAIN AND MAINTAIN BALL SIDE POSITION
- The objective of the half-court defense is to prevent or slow down the opponent from effectively getting the ball to its center.
- All players gain ball side position by the Attack Section.
- Maintain ball side position for as long as possible.
- Each perimeter defensive player is in the correct Press Base Position by the Attack Section.

USE THE SHOT CLOCK TO GAIN DEFENSIVE ADVANTAGE
- Only foul with a purpose: to stop a goal or pass that will lead to a goal.
- Gain and maintain ball side position.
- Keep your opponent from entering the ball into its center for as long as possible.

NOTE: Team defense starts with an offense that’s balanced and can control the defense. If the offense is balanced and controls the defense, it will be difficult for the opponent to create significant counter attack advantages. If the opponent can’t create counter attack advantages, the defense will be able to dictate terms in which the opponent can begin their front court attack.
PRESS DEFENSE
Pressing starts with denying the passing lane. Nothing comes easy. If the offensive player receives the ball from a release, the player's back will be turned away from the goal and moving away from the box. This prevents the player from assessing his or her front court, increasing the difficulty of decision-making. A well-run press allows a team to put a lot of pressure on the offense, both individually and as a whole, often resulting in forcing the offense out of balance. It also can take time off the clock and limit positive offensive opportunities.

A teammate who loses position on a ball side drive is at risk only if the ball is passed to the attacker. If effective ball pressure is being applied, the window might be open, but the ball stays right where the defender is, dictating it stays. A good press also controls ball movement. No defense can prevent the ball from being passed around the perimeter or from player to player; however, if the defense can dictate where or when that pass happens, the defense is in control of the situation, not the offense. Lastly, one of the biggest benefits to a press is that it can pressure the offense and its individual players. This often results in mistakes and can lead to turnovers.

ZONE OR SPLITTING DEFENSE
The goal of any offense is to create scoring opportunities in front of the goal through a center-forward, isolations, ball side drives, or even picks that create open inside water to attack. The choice to zone is determined by the answer to the following question: Is the scoring opportunity behind you (in the box) more dangerous than the one in front of you (on the perimeter)? An example of this can be found in the following scenario: The ball is at position 2 and being pressed, and the offense's center is open inside the box. The defender pressing the ball should stay pressed and—without fouling—force the offensive player to make a tough pass. However, that doesn't mean the defenders at 3 and 4 should remain pressed. They should recognize that a pass can come to the opponent's center and, therefore they should jump back into a zone.

Their decision to jump back into a zone is intentionally made based on their assessment of the situation. There always has to be a reason we press or zone.

LOGICAL VS. SPLITTING
In a logical zone, defenders are dropping back to prevent the ball from being passed into a potential advantage inside the box, while still being accountable to shot blocking lines from the perimeter. A logical zone can be a 2 or more player zone. As you can see in the diagram to the right, zoned defenders are able to work together to both prevent entry passes into an advantage inside the box, as well as be accountable for shot blocking lines.

This is in contrast to splitting. While you're still trying to take away an advantage inside the box, you're doing so in a manner that puts more pressure on the perimeter attackers. An added benefit of splitting defenses is—along with taking away advantages inside the box—creating great scoring opportunities on the counter attack. A downside to splitting is that the defense can't be accountable for all possible shot lines. In other words, they're okay with giving up certain shots as they believe taking away advantage inside the box—coupled with the benefits of defenders splitting—outweighs the potential dangers of allowing shooter 1x1 with their goalie.
**3-4 Zone**

The goal in a 3-4 type of zone (a two-person zone) is to work collectively to take away entries into the box and take away shooting lines from 3 and 4. Their goal should be to funnel the ball toward the goalie. An added benefit to a multiple-person zone is that pressure can still be applied on the shooter. When 4 has the ball, x4 should look to advance toward the ball while maintaining his or her block. Player x4 can do this because x3 is in the zone. When the ball gets passed to 3, they reverse roles. This is referred to a “pistoning.”

**M-Zone**

In a M-Zone Defense, there’s only one defender in the zone while the other two perimeter defenders are free to move on the ball and split the three perimeter players. The key here is that the zoned player must stay in the zone and shot block (as well as prevent/deter the ball from being passed in). The defenders splitting can turn and split facing the goal, as they don’t have an actual shot-blocking responsibility. If any of the top players drive, x1 and x5 should help pick them up and switch with the splitting defenders.

**1-Man Zone w/ Split**

The same concept is applied here with a 1-Man Zone. If 4 attacks the drop, x3 and split to apply some ball pressure. If x2 needs to get involved to help cover x3 as they split, they can. If 2 drives, x1 picks up the driver and switches with x2.

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**DEVELOPING A DEFENSE THAT WORKS FOR YOU**

All teams should spend time practicing their versions of the press. While pressing should be part of all defensive strategies, a team is sorely mistaken if it believes it can get away with only pressing. At some point, teams will have to implement some kind of zone-based defense to account for the mismatches their opponents present. How you transition from press to zone, which zone you use, and how you account for different ways your opponent may attack your zone should be figured out ahead of time.
OFFENSIVE TACTICS
& PHILOSOPHIES

"Individual commitment to a group effort - that is what makes a team work, a company work, a society work, a civilization work." - Vince Lombardi
NUMBERING SYSTEM
The numbering system to the right is most commonly referred to as the "American Numbering System." On the left side of the pool, you find positions 1 and 2. On the right side of the pool are positions 4 and 5. Position 3 is between positions 2 and 4, but 3 and 4 are not in a straight line; 3 must be 1 meter higher. Position 6 is in the center and is in the middle of the box at the 2-meter line.

PRINCIPLES OF AN EFFECTIVE OFFENSE

TRANSITION COUNTER ATTACK DIRECTLY AFFECTS YOUR FRONT-COURT OFFENSE
- Transition Counter Attack has to be emphasized more than the Primary and Secondary Counter Attack.
- Transition Counter Attack = an attack without a number advantage (3x2, 4x3, etc.).
- Immediately get into the front-court attack at the conclusion of the Transition Counter Attack and attack the defense before it’s prepared to defend.
- The Transition Counter Attack has to gain control of the defense.

BPACC AWARENESS
- Know where the BALL is.
- Know where your PLAYER is and what he or she is preparing to do.
- Know what’s going on in your AREA.
- Know what the situation is at the CENTER position.
- Know the time on the CLOCK—this (along with situation) dictates decision-making.

DICTATE TO YOUR OPPONENT
- This allows the offense to control possessions.
- It makes your opponent more predictable (black and white, A&B).
- Successful teams average 50 possessions per game, and high-scoring teams average 10 goal per game.
- The highest scoring teams score on 20 percent of their possessions.
- It’s in the 80 percent of possessions that either team can control the game.

POSITIVE POSSESSIONS
- Possessions don’t have to end with a goal to be deemed “positive.”
  - Did we earn a good scoring opportunity, exclusion, or penalty? Are we making good decisions, taking the correct shots, making the correct passes, and effectively attacking the defense?
  - Was the ball moved into the correct side of the pool to support the attack? Did our offensive possession allow for proper defensive transition? In other words, did the decisions we made on offense lead to a counter attack or high-percentage scoring opportunity for our opponent?
- These are all factors that have an impact on the game without goals scored.

UTILIZE PLAYERS’ INDIVIDUAL SKILLS
- Each player’s offensive role must accommodate his or her offensive strengths in relation to the attack of the team (e.g., centers at 2m, left-handed players on the right side, attackers on the perimeter, etc.).

ATTACK WHAT THE DEFENSE GIVES YOU
- The offense must immediately react to the defensive situation.
- Individual awareness and communication (echoing each other) is crucial.
- Offensive players must control their water and their defensive players.
WORK FOR EACH OTHER (NO ONE IS ON AN ISLAND)

- An offensive player has to have the space, the time, and be in the right position to shoot the ball.
- Always think “in 3s.”
  - “I need to do this, so my teammate can do this, so we can do that.”
- Is my decision-making a contribution toward a “positive possession”?
- Each shot has to be in the flow of the attack.

DESIGNING AN OFFENSE THAT WORKS FOR YOU

There is no “right way” to play water polo or organize an offensive attack; instead there are only ways that work for YOUR team. That said, there are more “traditional” approaches to the front court that have, over time, proven the most efficient. No matter what’s stressed in your front-court attack (playing for a center, motion, or a combination of both), having proper space and balance, as well as two attacks on the ball, are important aspects to any front-court attack.

PROPER SPACE AND BALANCE

- Each offensive player must control their water in order to maintain proper spacing.
- Balanced structure is typically a 3x3.
- Any driving has to be intertwined with maintaining possession of the ball and patience for the offense to regain balance.

TWO ATTACKS ON THE BALL

- Effective offenses have a ball side attack and a non-ball side attack occurring at the same time.
- This makes the offensive attack multidimensional and harder to defend.
- An example of this would be a 3 drive to the ball side (ball at position 4) while the left side gap drives. 3 would be the ball side attack and the motion created on the left side would create an opportunity for the ball to swing and be entered into 2m (non-ball side attack).

ATTACKING A PRESS

Creating a scoring opportunity inside the box is crucial to beating a press, as it forces the defense into a position where it’s forced to help. You can do this by implementing various offenses. Below are some examples of picks, drives, and motion-based offenses—all that can be used or built upon to beat a press.

PICKS

12 Pick

As 1 sets a pick for 2, they both break back downline toward the goal. This should create a 2v1 against x1. Depending on how they choose to defend this situation, the ball can be passed directly to 1 or across the pool to position 2.
32 Pick

3 sets a pick for 2. If the pick is set well, this creates a 2v1 against x3. If x3 doesn’t account for 2 coming off of the pick, they will have a clear path to the right side of the box. If they try to switch, 3 might have inside water heading down toward the left post.

21 Pick

2 drives downline and sets a pick for 1. If x2 stays back and does not press 1 on the up-drive coming off the pick, the ball can be passed directly to 1 pocket. If x2 switches and presses 1, the ball may be able to be passed directly to 2 who should have inside water.

DRIVES

Triangle Drives

2 triangle drives and 1 up-drives. If x1 follows 1, the ball can go to 2 as they exit their drive. If the defense switches, the ball can go to 1 in the pocket for a shot, entry into 2m or a pass to 2 who might have inside water.

Cross Drives

2 takes x2 on a drive across the pool. Ideally, they are able to gain ballside. If they are unable to do so, this is ok; space is freed open on the left side for either a 1v1 drive from position 3 or an isolation from position 1.
The basic goal here is to either gain a ballside drive into the box or work for separation backdoor for a shot. The first drive above shows 3 not getting a ballside drive, so they work for separation backdoor. As 2 rotates over, and their opportunity is there to drive ballside, they may be able to get the angle on x2, giving them a true ballside drive.

PLAYING FOR YOUR CENTER

Many of the same tactics outlined above can be used to play for a center. In these three diagrams, a triangle drive is used to get the ball to the center’s side of the pool. In the third diagram, you can see that when each player executes their role (center holds their side, 2 triangle drives, and 1 up-drives), the ball can be passed into the triangle of the center and is able to be entered.

ISOLATIONS AND POST-UPS

The above diagrams are three examples of the many ways you can isolate players. The idea is to create 2v1 advantages with one of the players in the box posting up. The key is to take advantage of the isolation before the defense is able to counter the isolation. One of the down sides of isolating players is that is allows defenders to defend the overloaded side with one less player.

ATTACKING A ZONE

As discussed in the Defensive Chapter, zoned defenders have multiple responsibilities. In trying to break a zone, the goal would be to try to make a defender to try and over commit to one responsibility, which will prevent them from being fully accountable to another, which creates opportunity for the offense. Let’s look at a few different ways to attack a attack a 3-4 Zone.

(Next Page)
To begin attacking a 2-player logical zone, the attacker in the zone (in this case 3 and 4) should start to widen their triangle a bit. This will stress the zone defenders as they are trying to play the zone in and out (piston) as well as now right and left. Simultaneously, the left side the the pool should work to a) occupy their defenders (so they can’t help with the zone) and b) create a secondary advantage. If 2 is able to get a good angle on x2, they may be able to get open backdoor.

If x1 and x2 focus too much on the drive, the ball can be crossed to 1 wrapping into the pocket. Once the ball in in their hands, they can either keep attacking the pocket and work for a isolation with 2, or they can take the ball back down toward position one and work for inside water for position 2.

Either way, this should create a 2v1 advantage to attack on the left side. While this left side attack is going on, the original zone could be an option, as well. This is the benefit of having two attacks on the ball.

These are a few examples of ways to break this zone. They are applicable to both sides of the pool, as well. There is any number of combination and possibilities and ways to break a zone. Don’t be afraid to experiment and try new things! Use the tools available to you (personal) as well as adhere to the principles and concepts discussed in this chapter to best design an offensive attack that works for you and your team.

CREATING AN OFFENSE THAT WORKS FOR YOU

Great offenses are created when sound principles and creative thinking meet. Each defense will have strengths and weaknesses. But it’s the offense’s job to play away from a defense’s strengths and exploit its weaknesses.

This manual is not intended to dictate to a coach the only ways to create an offensive strategy in water polo. It simply outlines best practices and basic structures used in the sport worldwide at various levels over the last 30 years. It’s up to each coach to develop his or her own philosophies and strategies in relation to team personnel and resources.
POWER PLAY OFFENSE
& DEFENSE

“The pessimist sees difficulty in every opportunity. The optimist sees the opportunity in every difficulty.”
- Winston Churchill
PRINCIPLES OF A SOLID 5-PLAYER DEFENSE

COMMUNICATE THE EXCLUSION
- The player excluded MUST communicate to everyone that he or she has been kicked out.
- Everyone else needs to quickly mobilize to defend the quick.
- Constantly talk and echo to each other.

PROTECT AGAINST THE QUICK
- Power play is not a time to rest. Quickly get organized and to your areas of defensive responsibility.

BASELINE DEFENDERS ARE CRUCIAL
- The three defenders at positions x1, x2 and x3 (closest to the goal).
- The backline is crucial as they ensure the offense can’t score the quick.
- Post players must set up quickly and make sure no near-side goals are scored from the 1 and 6 positions.

CONTROL THE POSTS
- Don’t let the post players score. Wear them down by playing heavy on them and using them to push off of in order to move out at the player with the ball.
- Never let them get comfortable. Disrupt their rhythm and, thus, the offense’s attack.

BE MOBILE AND RECOVER
- The best 5-man defenses are mobile and can move in and out.
- Once you move out to shot block, you must recover back to the post after the player you’re shot blocking has passed the ball.
- Successful 5-man is all about releasing each other. If one player is slow to come back to the post, this will start a chain reaction and someone on offense is going to end up being open for an easy shot.

NUMBERING SYSTEMS

4-2 STRUCTURE

3-3 STRUCTURE

BLOCKING LINES AND RESPONSIBILITIES

4-2 BLOCKING RESPONSIBILITIES
3-3 BLOCKING RESPONSIBILITIES

The goal of the defense is to funnel the ball to the goalie. The only time the ball won’t have a double block (two field block) is when the ball is at positions 1 and 6 when they’re on the 2m line. When they go into the pocket, x2 can help block cross cage.

10 QUALITIES OF A BALANCED ATTACK

6X5 IS THE CONFIDENCE OF THE TEAM
- Games will be won and lost based on the results of a team’s 6x5 and 5x6 percentages.
- Excellent 6x5 execution will have a rhythm and tempo.

ATTACK THE DEFENSE BEFORE THE ORGANIZE
- 6x5 is not for resting—it’s for attacking.
- The 5x6 can be exposed at the beginning of the 6x5.
- At the moment of the exclusion, the defense’s first response could be a reaction to the call.
  - This is the best time to attack. Look for the "quick."
- If the 6x5 can immediately gain control, the defense always will be one step behind.
- Make sure you don’t force a bad shot or turn the ball over trying to force something that isn’t there.

SCORING THE QUICK / GETTING TO POSITIONS
- Look to score the quick, BUT know when a window is closing (don’t force something). If the quick isn’t there, get to your positions.
- All players have strengths and weaknesses; make sure you get the post players to the posts and the perimeter players to their spots.

START THE ATTACK WIDE AND WITH SPACE
- As with a front court, it’s always easier to attack in as opposed to widening out. Many teams will try to hit you if you have poor spacing.
- Start wide and try to pull the defenders out; this will open up the posts more, too.

KNOW WHAT TO DO WITH THE BALL BEFORE RECEIVING IT
- Gather information at all times and know where the 3x2 is located.
- The 6x5 player will quickly process four important questions:
  - Where is the ball? Where is the 3x2? Where are the 5x6 players in my area? Where is the open shooting lane?
BODY POSITIONING AND BALANCE
- Players must remain on balance and ready for the next pass.
- Prepare your body to shoot before you receive the ball.
  - Too many young players catch the ball and then prepare their bodies to shoot. This is too late. Their body must be ready to shoot the ball before they it is received.

ACTIVE POST PLAYERS
- Active post players will prevent the 5x6 having one player guarding two 6x5 players.
- Constantly move within your area to occupy defenders.
- This movement will create openings for post players to receive the ball and score—or create shooting lines for perimeter players.
- Post players must follow the ball at all times with their shooting shoulders so they’re prepared to receive and score the ball.

MOVEMENT WITHOUT THE BALL
- As with basketball, move strategically without the ball. Set up yourself or a teammate. Make a defender choose. This is where the window opens.
- The defense has a tendency to watch the ball, allowing opportunities for players moving behind or without the ball to get open (or get others open).
- Movement will create new passing and shooting lanes.

PASS WITH PURPOSE
- Have a plan (know what to do with the ball before receiving it).
- Make a pass that will set up a goal or lead to a goal.
- Keep the ball dry and moving.
- All passes are lob (“touch”) passes.
- Set up a teammate. The best passes come from players who look like shooters. All passes that go to the post should come from perimeter players who’ve locked down the defense by looking like a threat.

FAKE WITH PURPOSE
- Know what to do with the ball before receiving it.
- Gather information on all ball fakes and don’t waste movements!
- The primary purpose of faking isn’t reading the defense.
- The purpose of faking is to:
  - Draw a 5x6 player to the ball, commit x3 to a post (strong side), open a passing lane and/or shooting lane, commit the goalie.

6x5 STRUCTURES

### 4-2 Structure

![4-2 Structure Diagram](Image)

### 3-3 Structure

![3-3 Structure Diagram](Image)

It’s important to note that the best teams use BOTH structures during one attack. They might set up in a 4-2, but through ball and player movement, they finish their attack stretching the spatial limits of the structure—and almost
in a 3-3. The opposite of this is true, as well. The important thing to understand is that the structure used should be determined based on your personnel. Below are a handful of attacks from both structures.

4-2 vs. 3-3 ATTACKS

4-2 STRUCTURE: 6 in, 5 wide, 4 center, 1 pocket

When using 4-2 structure, the offense either will shift to the right or to the left. Personnel will determine what direction is chosen and whether or not any left-handers are in the pool. Typically teams will shift to the right and use a 6 in, 5 wide, 4 center rotation. What happens with positions 1 and 2 is determined by what advantage the offense is trying to create. If a team has a better shooter at position 4, it might try bringing the 2 post into the back of X2 and working for a 2 Pop. If the better shooter is at position 1, the team might keep 2 low and bring 1 into the pocket. Either way, the goal of a rotation is to create a 2v1 advantage on the opposite side of the pool.

3-3 STRUCTURE - 1 in, 2 down

As the ball is received by position 6, position 1 sprints to establish position at the 2 post. There will be two different 2v1 advantages on the top: 2 and 6 vs. X4 and 6 and 3 vs. X5.
3-3 STRUCTURE - 5 in, 4 down

In these diagrams, you can see what can unfold by moving players into open water. How the defenders react, can open up scoring opportunities for different players.

**NOTE:** Whatever can be done on the left side to free up shooters at 1 and 4 can be reversed and done on the right side of the pool. Be creative and play to your strengths
THE COUNTER ATTACK

“It does not matter how slowly you go as long as you do not stop.” - Confucius
PHILOSOPHY

BEGINS ON DEFENSE AND IS ESTABLISHED IN THE FIRST QUARTER
- Dictates the tempo of the game.
- Defense must connect to the counter attack (“Defense to Counter Attack Mentality”).
- Be established in the first quarter (speed, aggression, and anticipation).
- Make your opponent complete “end to end” for four full quarters.

HAVE ORGANIZED STRUCTURE AND PROPER SPACING
- Structure dictates the choices we make. We’re allowed to create on the counter attack, but only within the confines of the structure.
- The better the spacing, the more obvious the advantage.

HAVE EACH PLAYER EXECUTE HIS OR HER ROLE
- Starts in the Create Section, proceeds through the Read Section, and finishes in the Attack Section.
- Based on position in the counter attack (not necessarily their positions as a players).

PRIMARY, SECONDARY & TRANSITION
- Primary—advantage on the first line.
- Secondary—advantage on the second line.
- Transition—no number advantage.

DO NOT OVER COMMIT TO OFFENSE
- At its best, a counter attack creates an advantage. At minimum, a counter attack helps transition into a balanced front-court offense. At its worst, it over commits and leaves you vulnerable to being countered.

TACTICAL PRINCIPLES

POSITION PLAYERS DEFENSIVELY TO ENHANCE THE COUNTER ATTACK
- Left-handed players should be positioned defensively 1-2 side (left side) as they will transition to the right-side of their front-court offense.

OUTLET THE BALL TO THE LINE WITH THE ADVANTAGE
- Try to get the ball to the most open player.
- The goalkeeper must be ready to outlet the ball anywhere in the pool.

LOCATE THE BALL, THE ADVANTAGE & THE CENTER IN THE READ SECTION
- Awareness dictates the decisions we make.
- The better our awareness, the better decisions we can make.

FIRST LINE MUST ESTABLISH POSITIONS 1, 6 & 5 ON THE 2M LINE
- Primary counter attacks (where the first line has an advantage) follow the Advantage Rules and attack accordingly.

NOTE: What are we trying to achieve? What are we trying to set up to attack? All players should know the answers to these two questions as it is what drives our decision making while on the counter attack. While looking through this lens, each player should be thinking: What’s next? How can I help the bigger picture?”
LANES, LINES & SECTIONS

COUNTER ATTACK LANES

<table>
<thead>
<tr>
<th>Lanes</th>
<th>Three Vertical Counter Attack Lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Lane</td>
<td>Right defensive side line to right defensive post</td>
</tr>
<tr>
<td>Center Lane</td>
<td>Right defensive post to left defensive post</td>
</tr>
<tr>
<td>Left Lane</td>
<td>Left defensive post to left side line</td>
</tr>
</tbody>
</table>

COUNTER ATTACK LINES

<table>
<thead>
<tr>
<th>Lines</th>
<th>Counter Attack Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Line</td>
<td>First players in the right, center and left lanes</td>
</tr>
<tr>
<td>2nd Line</td>
<td>Second players in the right, center and left lanes</td>
</tr>
</tbody>
</table>

COUNTER ATTACK SECTIONS

<table>
<thead>
<tr>
<th>Sections</th>
<th>Three Horizontal Counter Attack Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create</td>
<td>Defensive 0m to the defensive 10m</td>
</tr>
<tr>
<td>Read</td>
<td>Defensive 10m to the offensive 10m</td>
</tr>
<tr>
<td>Attack</td>
<td>Offensive 10m to the offensive 0m</td>
</tr>
</tbody>
</table>

NOTE: The tendency by most teams is to make attack decisions inside the Attack Section. At this point it is too late. The advantage must be recognized and the attack organized in the READ SECTION. Remember, the better your spacing - both horizontal and vertical - the more obvious the counter attack advantage.

ADVANTAGE RULES

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>RULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Ball is Pressed</td>
<td>Move towards the side of the ball.</td>
</tr>
<tr>
<td>#2 Ball is Not Pressed</td>
<td>Commit the defensive players, then move away from the ball.</td>
</tr>
<tr>
<td>#3 Defense has not committed</td>
<td>Accelerate the attack and apply Advantage Rule 1 or 2</td>
</tr>
</tbody>
</table>

NOTE: A good defensive team will not commit too early in the counter attack with the hopes of slowing down the decision making process of the offense. For this reason, Advantage Rule #3 is arguably the most important to practice. The offense cannot allow the defensive players to dictate the terms of the attack. This should be the mindset of the offense! Accelerate and attack the defensive players. At some point, a defensive player’s decision making will provide an opportunity for the offense to apply Rule #1 or #2 entering the Attack Section.

ATTENTION!
Before the Primary and Secondary Counter Attacks are discussed, it is important to note that even the top high school and club programs in the country tend to focus the majority of their time on having excellent spacing in the 1v0, 2v1, 3v2, 4v3, and Transition Counter Attacks only.
PRIMARY ADVANTAGES
Counter Attacks with advantages 1v0, 2v1, or 3v2

1v0 COUNTER ATTACK
- Player with the ball should attack their strong side post, going ball in hand once inside the 5m line.
- As the player gets inside the 5m line, they should begin attacking laterally, toward the opposite post.
- Use ball faking to get the goalie to jump and be aware of the defender chasing.

The third point above is a crucial point to finishing 1x0 counter attacks. The attacker must ball fake the goalie to lock them before sliding across the goal to find a shot. If the goalie cheats, there might be an opening without sliding.

2V1 COUNTER ATTACK (2-0 STRUCTURE)
- Both players attack toward the 2m line, aiming for just outside their respective posts.
- Apply Advantage Rules 1, 2 or 3 based on the situation. (Advantage Rule #1)
- The third picture shows the defender committing to the ball later in the attack. Both attackers should maintain their spacing into the box, with the player going ball in hand inside 5m.

NOTE: If the defender were to move toward the ball earlier in the counter attack, the player with the ball would apply Advantage Rule #1. He would begin to widen his attack (while still progressing vertically) and receive the defender. The other player would start to angle his attack toward the ball side (still attacking toward the 2m line). This is outlined in more detail in the 3x2 Counter Attack below.

3V2 COUNTER ATTACK (3-0 STRUCTURE)

RULE #1: Ball is Pressed
- Player with the ball should widen their attack while maintaining their vertical progress down pool.
- Invite the defender to fully commit to you and do not panic or pass the ball too early.
- This also provides additional time for the other two attackers to move into open water.
- Do not allow the ball to be fouled. If a foul occurs too quickly, they help take away the advantage.
- Other two attackers should start angling toward the ball side and maintain their vertical progress down pool.
- The ball should then be passed to the open player where the 2v1 can be exposed.

3v2 Video Link
RULE #2: Ball is NOT Pressed
- The player with the ball in the Right Lane is not pressed
- The player in the Center Lane commits their defensive player and then moves away from the ball
  - The player in the Center Lane establishes the center position in Zone 3
- The player in the Left Lane establishes Zone 1

RULE #3: Defense has NOT Committed
- This is the most important of the three rules. Good defensive teams will not commit to Rule #1 or #2 early. Instead, they will try to slow down the attack with the hopes of providing enough time for the defender chasing to catch up, taking away the number advantage.
- It is imperative that the offense push the tempo of the counter attack and force the defense to choose.
- At some point in the attack, the defense will either be a little more press-the-ball OR a little more press-away-from-the-ball.
- At this point, Advantage Rule #1 or #2 can be applied.
- The offense should keep pushing their attack and be patient as a window will open for them to attack.

NOTE: DON'T STOP. It is crucial for the three attackers in the first line to keep their speed in order to maintain their advantage.

SECONDARY ADVANTAGES
Counter Attacks with advantages 4v3, 5v4, 6v5

THE MOST CRUCIAL COMPONENT to a successful second line counter attack relies on the first line (first three players in the counter attack) filling positions 1, 6 and 5 deep and balanced on the 2m line. This provides the proper spacing for the Second Line to finish their attack. If the first line of the counter attack does not vertically push their attack into these zones, the second line will not be able to effectively attack the advantage they have.

4V3 COUNTER ATTACK (3-1 STRUCTURE)

- NOTE: A 4v3 counter attack is really a 1x0 counter attack on the backline.
- The first three players (first line of the counter attack) establishes Positions 1, 6 and 5.
- Player with the ball attacks the goal, angling toward the post on the side of the center defender.
- The center should separate toward the opposite post as the player with the ball goes ball in hand.
- If the defender stays with the center, a shot will develop for the player with the ball.
- If the defender splits or jumps the ball, a pass to the center for a shot will present itself
5V4 COUNTER ATTACK (3-2 STRUCTURE)

- **NOTE:** A 5v4 counter attack is really a 2v1 counter attack on the back line.
- First Line establishes Positions 1, 6 and 5 and Second Line works to attack open water on the 5m line, in front of the goal.
- Goal is to attack the 2x1 that develops on the second line.
- Player with the ball should be attacking ball in hand once inside the 5m line.
- Just like in a 4v3 Counter Attack, the player in the box should separate at the last moment to the post opposite of their defender.

6V5 COUNTER ATTACK (4-2 STRUCTURE)

- **NOTE:** A 6v5 counter attack is a 3v2 counter attack on the back line.
- Most advantages in a 6x5 counter attack are generated coming out of the box (the center position)
- During the counter attack and as soon as the 6v5 advantage is recognized/communicated, the first three players in the first line of the counterattack swim to the left post, right post and position 5.
- The player in the second line on the left side will get wide in their attack and push all the way down to position 1. Together with the first line, this will form the baseline of the desired 4-2 structure of the 6v5 counter attack.
- This will allow for proper spacing for the remaining two players in the second line to attack the 2v1.

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**TRANSITION COUNTER ATTACKS**

*Counter Attacks with no number advantage (6v6)*

**NOTE:** Just like in the 4v3, 5v4 and 6v5 Counter Attacks, it is crucial for the first line of the counter attack to push their attack vertically all the way to Positions 1, 6 and 5 on the 2m line on a 6v6 Transition Counter Attack.

6v6 TRANSITION COUNTER ATTACK (3-3 Structure)

- Counter Attack always concludes inside the Attack Section and has proper spacing and balance.
- Attack before the defense is set.

What this looks like moving forward depends on what you prioritize offensively. If you play for a center, the goal should be to get them into the box and get the ball to their side of the pool so that it can be entered. However, if you run a more motion based offense, the Transition Counter Attack should flow right into your front court motion. Remember, a good defense leads to a good counter attack, a good counter attack leads to a good front court offense.
**LANES, LINES, SECTIONS OF THE COUNTER ATTACK**

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<th>LEFT LANE</th>
<th>MIDDLE LANE</th>
<th>RIGHT LANE</th>
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THE GOALKEEPER

“The goalie is like the guy on the minefield. He discovers the mines and destroys them. If you make a mistake, somebody gets blown up.” - Arturs Irbe
GOALKEEPER TRAINING
This chapter was written collaboratively by coaches who've been privileged to spend time with some of the best goalie coaches in America and the rest of the world. This isn’t intended to be a definitive resource for goalie training but rather as a source for coaches to begin giving our goalies the specific attention and training they need. What you’re about to read are reflections of these coaches’ experiences and successes.

*And while this chapter aims to offer a comprehensive look at all the important aspects goalie training, we also looked to make it concise enough for a quick reference when needed.*

POINTS OF EMPHASIS FOR TRAINING GOALIES

1. Goalies should do only 25 to 30 percent of the swimming the field players do in a practice. The emphasis in goalies’ swim training should be on the breast stroke and kicking. The goalie position can be likened to a sprinter; a goalie goes all-out, maximum effort for 30 seconds…and then rests while the ball is on the other end of the pool. So goalies need to be taught to focus and give maximum effort in short bursts of time.

2. Eggbeater movements should emphasize technique and form over strength and speed. This principle should be emphasized to younger goalies particularly. As goalies get older you can add more strength and speed into the training. Refer to the proper technique for lunge below.

3. Goalies never should hold weight over their head to condition or train. This causes injury and is an unnatural position for water polo players.

4. The higher the goalies’ knees when they eggbeater in proper form, the higher goalies can extend out of the water.

5. Goalies need individualized training and attention. Goalkeeping is the most mentally demanding position in the pool, and a goalie’s confidence can be fragile at times. Thus as coaches we must consistently provide goalies with the attention and training they need to be successful.

6. Goalies need to strength train during "down" times of workouts. It's not productive for goalies to rest on the wall during scrimmages or drills that don't include them. Give goalies simple directions to complete a leg workout or drill during these times. It's also important that goalies stretch their legs during difficult training sessions. They can use 3 to 5 minutes during down times to stretch and keep their legs loose to avoid injury.

BASIC LUNGE TECHNIQUE:

- Head to the ball!
- Light hands.
- Stay off of your chest.
- Follow through. Do not pull away from corners (head, body, or arms).
- Follow the ball with your eyes all the way into your hands.
- Do not snap your head back center.
- Wide legs.
- NOT up and then OVER. Go straight to corner.
- Lead with legs, not upper body.
- Step to ball.
- Watch and meet the ball in front of you. Go slightly forward for every jump.
- Land on your side, not front or back.
- Use your trail hand to push the water.
- Do not swing in rainbow (or wax on) motion. Arm goes straight to the ball.
FOUNDATIONAL GOALIE DRILLS

**Pull Downs** (a.k.a. rounders, knock downs)—Goalies shoot balls at each other approximately 3 meters apart. The focus of the drill is to block the ball forward while controlling where the ball goes. Goalies should be using forearms and wrists to control ball in front of them. Shots should be taken within the range of the goalie in order to practice blocking and controlling.

**Fire Starters**—Person on deck while goalie is in the water. Goalie should be as close to wall as possible without hitting it. Person on deck and goalie move in unison laterally for approximately 5 meters and then back to original starting point, while tossing a ball back and forth to each other. The ball toss should be similar to a “volleyball set pass,” not over the goalies head but right in front of the goalie. Coaches can vary the distance of this drill based on goalie’s ability and age. Older goalies should use weighted balls instead of regular balls and wear weight belts as stamina increases. The goal of this drill is to improve lateral movement in the cage, which is essential to good goalkeeping.

**Closeouts**—Over the course of a lap (25 to 30 meters), goalie makes a maximum jump with both arms and holds that position for approximately one second before breast-stroking forward, bringing both arms together. The goalie’s entire body should move forward while trying to complete this movement.

**Shooting Drill 1**—Goalie starts in cage in ready position then sprints head up to the 5-meter line to simulate stealing a ball. Goalie then does water polo backstroke back into the goal where he/she immediately does six lunes with maximum effort and speed before taking two to three shots from the perimeter.

**Cone Drill**—Goalie moves within a lap (25 meters) stepping from cone to cone (cones should be around 1 foot apart). Try to get body centered on each cone after taking a step. This helps improve lateral motion and balance after making a big move. And taking a wider and wider step (going further and further) will open up and strengthen hip flexors and legs.

**Headers**—With a partner and a water polo ball, the partner tosses the ball at the goalie high. With both hands behind the back, the goalie explodes up and heads the ball back to the partner using the forehead. Make sure the goalie explodes in an aggressive manner moving the body forward. You can also do this with three people and work on heading the ball to the side: Form a triangle. One person passes the ball to the side. The goalie then explodes toward the ball with both hands behind the back and heads the ball to the next person. It works on lunging to the corners. Coaches can also work on this with goalies by throwing the ball from the deck. **Remember wherever your head goes, your body will follow!**

**Mirror Drill**—Two goalies face each other, about 1m apart. Have one of them go for 1 minute making different lunes and pulldowns as the opposing goalie tries to copy the other at the exact time the jumps are made. After 1 minute switch.

**Maximum Heavy Ball Throws**—5-minute drill: 45 seconds of work and 15 seconds of rest for 4 minutes. Work all the way through the final minute of drill. Make sure the goalies jump to their maximum height to throw the ball and then maximum jump again to receive the ball. The ball shouldn’t go over their heads. Goalies should pass from their chest and use their legs to make throws while performing maximum jumps out of the water.

**No-Arm Lunges**—If goalies are having a hard time stepping to the ball when they lunge and block, then have them perform lunges in the cage with either their hands clasped behind their back or with both hands grabbing the bottom of their suits. Goalies should perform sets of 8 lateral lunges in this manner. You also can augment the drill and have goalies head a ball back to you in the water at the end of their no-arm lunges.
Shooting Drill 2—Goalie will face 8 to 10 shots from approximately 5 meters between the goal posts. Goalie will have a ball (or heavy ball) in hand and must block the shot by using the ball in hand. Make sure goalies are stepping to the ball with their legs and body before blocking it. The point of this drill is to lessen the dependency on hands to block shots. Shots in this drill should be not be taken to score but rather to force the goalie to move properly to block the ball.

Speed Touches—Get directly underneath the crossbar. Explode up and touch the crossbar with both hands. Continue to slap the crossbar without your hands ever going under water for 30 seconds. Take a 1-minute rest and repeat 5 times.

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2 – Eggbeater and movements should emphasize technique and form above strength and speed. This needs to be particularly emphasized with younger goalies. As goalies get older you can add more strength and speed into the training. Refer to the proper technique for lunges below.

3 – Goalies should never hold weight over their head to condition or train. This causes injury and is an unnatural position for water polo players.

4 – Goalies should eggbeater with their knees at a higher point than field players. The higher the goalie’s knees are when he/she eggbeaters in proper form, then the higher the goalie will be able to extend out of the water.

5 – Goalies need individualized training and attention. Goalkeeping is the most mentally demanding position in the pool, and the confidence of a goalie very sensitive. Thus, as coaches, we must consistently provide goalies with the attention and training they need to be successful.

6 – Goalies need to be strengthening during “down” times of workouts. It is not productive for goalies to be resting on the wall while a scrimmage or drill is going on that does not include them. Give them simple directions to complete a leg workout or drill during these times. It is also important that goalies stretch their legs during difficult training sessions. They can use 3-5 minutes during down times to stretch and keep their legs loose to avoid injury.

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7. Wide legs
8. NOT Up and then OVER. Go straight to corner.
9. Lead with legs not with upper body.
10. Step to ball.
11. Watch and meet the ball out front of you. Go slightly forward for every jump
12. Land on side not front or back
13. Use trail hand to push the water.
14. Do not swing in rainbow (or wax on) motion. Arm goes straight to ball.

GOALIE TRAINING & RESOURCES

Sean Nolan - USAWP ODP Director of Goalkeepers (2000 USA Olympian)

- Sean Nolan Living in the Triangle
- Sean Nolan Goalie Handbook
- Sean Nolan Videos (Championship Productions)
- Center Shots
- High Corner Blocks
- Ping Pong

KAP7 “Tip of the Week” with Genai Kerr (2004 USA Olympian)

- Sliding
- Lunges
- Base Position
- Hand Position
- Passing

Goalie and Training Videos with Jack Bowen (2x National Champion)

- Rapid Fire Tennis Ball
- Fire Walk
- Cannonball Run
- Skip Shot
- Stepping
- RPM - Legs

Following the 1996 Olympics, Jack produced a goalie training video along with Olympians Brad Schumacher and Wolf Wigo at the International Swimming Hall of Fame Pool in Florida. It has only been available for purchase as a DVD through USA Water Polo, but now can be purchased digitally. Please reach out to Jack Bowen for more information.
APPENDICES

“Wisdom is not a product of schooling but of the lifelong attempt to acquire it.”
- Albert Einstein
Coaching Handbook 1 Day Practice Plan - Linear

8:00-8:40  Warm up/Training
8:40-9:10  Drive Defense technical work
9:10-9:30  Passing/Shooting
9:30-10:00 Controlled scrimmage w/ emphasis on Drive Defense

Warm up/Training - 40 min
12x 50s  6x 50 kick/swim @ 1:00
          6x 50 Backstroke/Breaststroke @ :50
12x 100  Alternate 1:30/1:15
20x 25   1-5 under :45 @ 1:00
          6-10 under :35
          11-15 under :40
          16-20 under :35

Drive Defense technical work - 30 min
4x 25 reverse sculling races
4x 25 Lunge to the lane - focus on driving your ball side hip to the surface
4x each below driving sequence

Pressing at x2 with no offensive player, imaginary ball at 4
  Step 1: Give water and reverse scull towards ball
  Step 2: Counter spin and swim when driver approaches your shoulder
  Step 3: Protect from shin off from driver
  Step 4: Repress driver at 1

Pressing at x4 with no offensive player, imaginary ball at 2
  Step 1: Give water and reverse scull towards ball
  Step 2: Counter spin and swim when driver approaches your shoulder
  Step 3: Protect from shin off from driver
  Step 4: Repress driver at 5

Pressing at x2 WITH Driver @ 2, imaginary ball at 4
  Step 1: Give water and reverse scull towards ball
  Step 2: Counter spin and swim when driver approaches your shoulder
  Step 3: Protect from shin off from driver
  Step 4: Repress driver at 1

Pressing at x4 WITH Driver @ 4, imaginary ball at 2
  Step 1: Give water and reverse scull towards ball
  Step 2: Counter spin and swim when driver approaches your shoulder
  Step 3: Protect from shin off from driver
  Step 4: Repress driver at 5

Passing - 10 min
2 min  Strong Hand to the Left
2 min  Strong Hand to the Right
2 min  Off Hand any direction
4 min  Pass, Entry Pass, Kick out pass
Shooting- 10 min
  5 min  Pick up and shoot on the whistle at positions 1, 2, 3, 4 & 5
  5 min  Pass 3 to 1 shot
        Pass 3 to 5 shot
        Pass 4 to 2 shot
        Pass 2 to 4 shot

Controlled scrimmage w/ emphasis on Drive Defense- 30 min
Coaching Handbook 1 Day Practice Plan- Stations

8:00-8:10am  Warm Up
8:10-8:15am  Station explanation
8:15-9:15am  Stations (12min + 3min transition/Recovery)
9:15-9:35am  Front Court Drill
9:40-10:00am Controlled Scrimmage

**Warm Up**
400 yds Reverse IM; 25 of each stroke is kick

**Stations**

**Station 1- Swim**
9 x 100 @ 1:20

**Station 2- Pass**
2 min  Soccer Throw in
2 min  Alt wrist passing
2 min  Tripod position passing
3 min  Kick fwd to ball passing; reverse scull back to original pos
3 min  3 level rise up

**Station 3- Legs**
Weight ball- 3x through w/ no stopping
15s on, 15s off  ->  30s on, 30s off  ->  45s on, 45s off
45s on, 45s off  ->  30s on, 30s off  ->  15s on, 15s off

**Station 4- Shooting**
4 min  Drill 1-Tripod position Shooting- no fake
4 min  Drill 2-3 shots; Receive ball from R dry, Receive from L dry, wet pass pick up and shoot
4 min  Drill 3-3 shots faking and elevating to shoot over obstruction

**Front Court Drill-** 7 athletes per drill
Pass 1-Ball controlled at 4, drive from 2
Pass 2-Ball controlled at 2, drive from 4
Pass 3-Entry from 3 to center

1)  
2)  
3)  

**Scrimmage**
3 possessions; Defense must get a stop on the 3rd possession to counter attack to offense

Possession 1- Ball starts under pressure at 4 and a drive from 2
Possession 2- Ball starts under pressure at 2 and a drive from 4
Possession 3- Ball is entered to 2m, defense crashes, ball is passed out to perimeter and play
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<td><strong>Set up Passing and Scoring 2s</strong></td>
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<td>FC O Zone</td>
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<td>2 person Zone</td>
<td>Attacking 1 person zone; Attacking 2 person zone</td>
<td>Breaking down zone with driving</td>
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<tbody>
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<td>TO Plays/ After Goal/ Game Situations</td>
<td>Game</td>
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Athlete-Centred Program Expectations

Example 1: Marc Trestman (professional football coach)

1. Be hard working, humble, and disciplined, with a common respect for everyone in the organization, our opponents, and the game of football.
2. Be a resource to every player in developing his football skills and character to the highest level possible, and at the same time have him internalize that everyone associated with the team and organization is entirely interconnected with one another.
3. Communicate to all players that they have to be accountable and that the success of the team is directly related to their individual commitment and effort.
4. Clearly define the standard of performance in all areas as well as the role and responsibility of every member of the organization.
5. Put into place a system of football that is flexible to the existing talent and personnel.
6. Produce highly efficient play at every position to win games on a weekly basis.

Example 2: Beth Anders (American field hockey coach):

1. Accept responsibility and be accountable for your actions and learning.
2. Respect other players and expect respect in return (must be earned).
3. Demonstrate trust, honesty, and loyalty. These three characteristics require unconditional giving.
4. Contribute to an atmosphere with shared purpose.
5. Engage in healthy competition. Go hard and challenge every situation you encounter.
6. Keep things in perspective. People are the most important factor. Therefore, enjoy what you do and with whom you chose to accomplish your goals is most important.
7. Control only those things you can control. Play with your abilities and be yourself.
8. Take care of yourself, both mentally and physically.
Sample Goalie Workouts

Sample Workout #1

Warmup
100 Free
100 Breaststroke
200 Triple Kick Breaststroke

4 x 50’s with 10 seconds rest
25 scull kicking/25 Vertical breast stroke
8 x 50’s Hard Flutter Kick on 1:00
2 laps easy
2 laps build eggbeater
4 laps lateral eggbeater with heavy ball
2 laps of lateral high lunges
2 laps of lateral low lunges
2 laps of Closeouts
1 lap easy
3 x 30 second intervals of Maximum Jumps in Goal
4 minutes of Pull Downs
Mirror Drill x 3
Shooting Drill # 1 x 3
Passing for form and distance until team is ready to shoot

Sample Workout # 2

Warm up: 200 Choice
200 Triple Kick Breast stroke
4 laps Water Polo butterfly
4 laps Water Polo Backstroke
2 laps of build eggbeater

10 x 75’s on 15 seconds of rest
25 plow eggbeater with kickboard/25 fast kick (alternate breast/free)/ 25 Max eggbeater with kickboard
on top of head

2 Laps easy
Fire Starters x 3
8 High Lunges/8 Low Lunges/8 Lob Blocks – In Cage with an emphasis on form (repeat)
5 Minutes of Passing
Pull Downs
Shooting with team
Sample Workout # 3

Warm up: 100 free/100 kick/100 triple kick breast
5 x 50’s build free on :45
8 x 25’s hard flutter kick on :30
4 Laps of vertical breast with hands out
2 laps build eggbeater
4 laps Cone Drill
2 laps Lateral high lunges/2 laps lateral low lunges/2 laps Closeouts
Header followed by a pull down x 3 (repeat)
Shooting Drill # 2

5:00 Minutes of Maximum throws with Heavy Ball
(:45 seconds on/15 seconds rest – Final minute no rest)
## 2018 SEASON OVERVIEW

<table>
<thead>
<tr>
<th>Week</th>
<th>WK-1</th>
<th>WK-2</th>
<th>WK-3</th>
<th>WK-4</th>
<th>WK-5</th>
<th>WK-6</th>
<th>WK-7</th>
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<tr>
<th>Phase</th>
<th>Pre-Season / Non-League</th>
<th>In-Season / League</th>
<th>Post-Season / Playoffs</th>
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<tbody>
<tr>
<td>Training Schedule</td>
<td>M/W/F: 6:30-7:30 AM + 3:00-5:00 PM</td>
<td>M/W/F: 6:30-7:30 AM + 3:00-5:00 PM</td>
<td>M/W/F: 6:30-7:30 AM + 3:00-5:00 PM</td>
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<td>Tu/Th: 3:00-5:00 PM</td>
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<tr>
<th>Benchmarks</th>
<th>Swim Test</th>
<th>Intra Squad Game</th>
<th>Tournament 1 / Tournament 2</th>
<th>Tu - Game 1 / Th - Game 3</th>
<th>Tu - Game 5 / Th - Game 6</th>
<th>Tu - Game 7 / Th - Game 8 / Sa - Game 9</th>
<th>Tu - Game 10 / Tournament 3</th>
<th>W - Game 11</th>
<th>Playoffs</th>
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<th>Swim Training</th>
<th>3x per week</th>
<th>M-T-TH AM</th>
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<th>(Add Position Training)</th>
<th>2x per week</th>
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<th>1-x per week</th>
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<th>2x per week</th>
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<th>1-x per week</th>
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<tbody>
<tr>
<td></td>
<td>W - Offense (CA) &amp; 6x6 (Technical and Tactical)</td>
<td>W - Offense (CA) &amp; 6x6 (Technical and Tactical)</td>
<td>W - Offense (CA) &amp; 6x6 (Technical and Tactical)</td>
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<td></td>
<td>TH - Controlled Scrimmage, Game Situations &amp; 6x5/5x6 (Psychological-Competition)</td>
<td>TH - Controlled Scrimmage, Game Situations &amp; 6x5/5x6 (Psychological-Competition)</td>
<td>TH - Controlled Scrimmage, Game Situations &amp; 6x5/5x6 (Psychological-Competition)</td>
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<td></td>
<td>(Game Situations: After Goal, Time Out and End of Game)</td>
<td>(Game Situations: After Goal, Time Out and End of Game)</td>
<td>(Game Situations: After Goal, Time Out and End of Game)</td>
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<tr>
<td></td>
<td>F - Defense, Counter Attack &amp; Offense (no contact) @ game pace After Goal and Time of Game</td>
<td>F - Defense, Counter Attack &amp; Offense (no contact) @ game pace After Goal and Time of Game</td>
<td>F - Defense, Counter Attack &amp; Offense (no contact) @ game pace After Goal and Time of Game</td>
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(Conference Championship beginning Friday)
# SWIM TRAINING

### Session 1

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<th>Stroke</th>
<th>Pace</th>
<th>Depart</th>
<th>Intensity</th>
<th>Rest after Set</th>
<th>Notes</th>
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<tr>
<td>8</td>
<td>50</td>
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<td>Flutter Kick ½ lap Fly ½ lap</td>
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<tr>
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<td>Free w/breast kick</td>
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<td>Back w/Breast Kick</td>
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<tr>
<td>16</td>
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<td>Breath 3,5, 7 per 100</td>
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### Session 5

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<tr>
<td>1x200@3:00</td>
<td>Free</td>
<td>100 Hard, 100 Easy</td>
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<td>4x50</td>
<td>25 Br. Kick</td>
<td>Must go hard. .:10 rest between each 50</td>
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<tr>
<td>1x200@2:40</td>
<td>Free</td>
<td>50 Hard, 50 Easy, repeat thru</td>
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<td>4x50@:30</td>
<td>25 Vert. EB</td>
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<td>1x200@2:40</td>
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<td>100 Hard/100 Easy</td>
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<tr>
<td>4x50@:30</td>
<td>25 Hor. EB</td>
<td>Build 50's</td>
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<td>25 Vert. Br. Kick</td>
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<tr>
<td>1x200@2:40</td>
<td>Free</td>
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<tr>
<td>1x600</td>
<td>Free</td>
<td>Hypoxic / Sprint every 3rd 50</td>
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<thead>
<tr>
<th>Set</th>
<th>Stroke</th>
<th>Notes</th>
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<tbody>
<tr>
<td>6x100@1:25</td>
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<td>Hold 1:07-1:10</td>
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<tr>
<td>4x200@2:40</td>
<td>Free</td>
<td>Hold 2:20</td>
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<tr>
<td>3x300@?</td>
<td>Free</td>
<td>100 Medium/100 Hard/100 Hypoxic</td>
</tr>
<tr>
<td>20:00</td>
<td>Legs</td>
<td>TBD</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Set</th>
<th>Stroke</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>20x100@1:20</td>
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<tr>
<td>1x600</td>
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<td>20:00</td>
<td>Legs</td>
<td>TBD</td>
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<thead>
<tr>
<th>Set</th>
<th>Stroke</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>8x100@1:20</td>
<td>Free</td>
<td>Hold 1:10</td>
</tr>
<tr>
<td>8x100@1:25</td>
<td>Free</td>
<td>Hold 1:05</td>
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<td>8x100@1:30</td>
<td>Free</td>
<td>Hold 1:00</td>
</tr>
<tr>
<td>1x600</td>
<td>Free</td>
<td>Hypoxic</td>
</tr>
<tr>
<td>20:00</td>
<td>Legs</td>
<td>TBD</td>
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SWIM STANDARDS

Below are the swimming matrix for all age groups, boys and girls. It covers 100 free time from :45 – 1:30 and appropriate energy system training (based on 100 time).

The most important energy systems:

- **Aerobic Threshold.** Recommendation for 10U is to swim 500 yards best effort, 12U to swim 1,000 best effort, and all ages from 13-18 swim 1,500 best effort to determine their threshold.
  - *Anaerobic Threshold is the point where your body starts to produce lactic acid faster than it can be removed resulting in an accumulation of lactate and fatigue.*

- **Lactate Tolerance** (Probably the most important Energy System for water polo). Recommendation is for 5-10 x 100 at :30 rest. Average should be :05 - :07 off 100 free maximum.
  - *The level in an athlete’s body at which the build up of lactic acid begins to negatively affect their performance*

- **Max VO2:** Recommendation is for 5 x 100 @ 5:00. Average should be :02 - :03 off 100 free maximum time.
  - *VO2 max is the measurement of the maximum amount of oxygen that an individual can utilize during intense, or maximal exercise.*

Highlighted below are goal areas from bronze, silver, and gold. We have used USA Swimming National Age Group Motivational times for each age group to determine these levels. Bronze is equivalent to B standards, silver is equivalent to BB standards, and gold are equivalent to A standards. Their times are divided through AAAAA, but I thought it would be enough to have these levels.

NATIONAL BOYS STANDARDS

<table>
<thead>
<tr>
<th>U10 Boys</th>
<th>U12 Boys</th>
<th>U14 Boys</th>
<th>U16 Boys</th>
<th>U18 Boys</th>
<th>Aerobic Threshold: 500/1000/1500 Maximum Calculating Average Per 100</th>
<th>Lactate Tolerance: 5-10 x 100 Maximum Effort w/ :30 rest</th>
<th>Max VO2: 4-5 x 100 @ 5:00</th>
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<tbody>
<tr>
<td>1:30</td>
<td>1:30</td>
<td>1:30</td>
<td>1:30</td>
<td>1:30</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:35 - 1:37 @ 2:05</td>
<td>Averaging 1:32 - 1:33</td>
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<td>1:29</td>
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<td>1:29</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:34 - 1:36 @ 2:04</td>
<td>Averaging 1:31 - 1:32</td>
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<td>1:28</td>
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<td>1:28</td>
<td>1:28</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:33 - 1:35 @ 2:03</td>
<td>Averaging 1:30 - 1:31</td>
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<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:32 - 1:34 @ 2:02</td>
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<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:31 - 1:33 @ 2:01</td>
<td>Averaging 1:28 - 1:29</td>
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<td>1:25</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:30 - 1:32 @ 2:00</td>
<td>Averaging 1:27 - 1:28</td>
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<td>1:24</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:29 - 1:31 @ 1:59</td>
<td>Averaging 1:26 - 1:27</td>
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<td>1:23</td>
<td>Hold Average Per 100 w/:05 - :07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:28 - 1:30 @ 1:58</td>
<td>Averaging 1:25 - 1:26</td>
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<td>Averaging 1:26 - 1:28 @ 1:56</td>
<td>Averaging 1:23 - 1:24</td>
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<td>Averaging 1:25 - 1:27 @ 1:55</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:24 - 1:26 @ 1:54</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:23 - 1:25 @ 1:53</td>
<td>Averaging 1:20 - 1:21</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:22 - 1:24 @ 1:52</td>
<td>Averaging 1:19 - 1:20</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
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<td>Averaging 1:14 - 1:16 @ 1:44</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:13 - 1:15 @ 1:43</td>
<td>Averaging 1:10 - 1:11</td>
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<td>Averaging 1:12 - 1:14 @ 1:42</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:11 - 1:13 @ 1:41</td>
<td>Averaging 1:08 - 1:09</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:10 - 1:12 @ 1:40</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:09 - 1:11 @ 1:39</td>
<td>Averaging 1:06 - 1:07</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:08 - 1:10 @ 1:38</td>
<td>Averaging 1:05 - 1:06</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:07 - 1:09 @ 1:37</td>
<td>Averaging 1:04 - 1:05</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:06 - 1:08 @ 1:36</td>
<td>Averaging 1:03 - 1:04</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:05 - 1:07 @ 1:35</td>
<td>Averaging 1:02 - 1:03</td>
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<td>.59</td>
<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
<td>Averaging 1:04 - 1:06 @ 1:34</td>
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<td>Hold Average Per 100 w/ .05 - .07 rest for 1,000 - 2,000 yards</td>
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<td>U18 GIRLS</td>
<td>Aerobic Threshold: 500/1000/1500 Maximum Calculating Average Per 100</td>
<td>Lactate Tolerance: 5-10 x 100 Maximum Effort w/ :30 rest</td>
<td>Max VO2: 4-5 x 100 @ 5:00</td>
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