

“Wall Ball”

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(Paul Carcaterra is widely regarded as one of the top youth lacrosse teachers in the USA. he is a former captain and All-American at Syracuse. He plays for the MLL New Jersey Pride. Carcaterra also is co-director of No Limit Lacrosse Camps (which he co-directs with MLL All-Star John Gagliardi).)

As this wonderful sport evolves, both from an equipment and training standpoint, we are all exposed to new ideas about how to become better coaches and players. I have been involved with the sport of lacrosse for 21 years, at the youth/high school (Yorktown), college (Syracuse), international (Team England), and professional levels(NJ Pride). There were many innovative ideas that helped me become a strong player, and now a high school (Fox Lane) coach in Westchester County, NY. However, the single most effective training technique that was implemented in my game, and the one that I preach first and foremost to my players as a coach, is one of the oldest. “WALL BALL” is the one aspect of training that can help a player develop and be the sure handed ball control player, regardless of position, that every team needs.

I look back to my childhood, and remember buying into this system that was preached to me from people with names such Gait, Maracheck, Zulberti, and Nelson. Committing yourself to 20 minutes a day, yes only 20 minutes will improve your stick handling, hand eye coordination, passing, catching, shooting, fakes, and trickery. The beauty of “wall ball” is that you do not have to rely on anyone else to get better. Just you and the wall. There are five phases of “wall ball” below that I feel can benefit everyone regardless of position. Find a wall in your area (it could be the side of a school, gym, handball court, etc) that is at least 15 yards long and ten feet high.

Phase 1-Quick Stick/Rapid Fire: Line up around 3-5 yards from the wall. First, 50 right hand throw and catches without cradling. After completing 50 right hand throw and catches, do the same with your left. Did you notice I didn't mention starting with your strong hand. With “wall ball” anything you do right, you follow-up left. This stage is great because it allows you to work on quick sticks, hand eye coordination, and one timing. You will become better about getting rid of the ball in a timely fashion without even noticing it by practicing this stage.

Phase 2-12 Yard Passing: Line up 12 yards from the wall. Start with 30 right hand throws, which will come back to you on one bounce. When you retrieve the ball from the one bounce, cradle once, then follow-up with the next throw. When you have completed 30 right handed throws, follow-up with 30 left.

Phase 3-Throwing & Catching On The Run: This may be my favorite and most helpful stage. First I start line up 5-7 yards from the wall on the far left side of the wall. I begin this stage with the stick in my right hand and while I am running alongside the wall (towards the other end), I throw and catch the ball on the run. The important part is to throw the ball on the run and not always catching the ball stick side. I like to do this during every stage. Do you always get a pass stick side? No. Therefore, in your training you should throw the ball against the wall and catch it cross hand (or across your face). After I run one length of the wall, I run back to the other end throwing lefty (doing the same thing I did with my right). Keep repeating these steps. This stage should be done for about 5-7 minutes.

Phase 4-Shooting: Line-up around 12-15 yards from the wall. Get in proper shooting formation (hands loose, three quarter/overhand motion, snapping of the hips, and following threw) mark a few places on the wall with tape to aim at. Shoot at about 80% velocity, having the ball come back to you with one

bounce. Depending on where you aim, the ball may take bounces that aren't the same, so you have to work a little bit. Start with 25 right, and follow up with about 25 left.

Phase 5-Trickery: This stage is fun. This is a great time to practice behind the backs (make sure you are not following threw too much. Step in the direction you are aiming, and the behind the back motion is only about a foot, with the head of your stick ending up hitting the top part of your arm near your shoulder). Around the world, threw the legs, and any other creative stuff can be incorporated at this time. I would leave around 5 minutes for this stage. I am a firm believer that this stage is important. If you can pull this stage off (and only if you are mastering the other 4 stages should you try this stage), it is an indication that you have a strong comfort level with your stick and great hand eye coordination. It is also a stage that can help you in terms pulling something off in a game that is nice to watch and necessary. There are times in a game when a behind the back is the only option.

So there it is, five stages of 'Wall Ball.'" Get a radio with your favorite beats, a snow cap and duck boots if there is snow on the ground, and do what you have to do to get out at least five days a week for 20 minutes/per day. Don't let the competition pass you by. No excuses!

THE WALL DRILL - "Your lacrosse stick should become part of your body!"

To become proficient in passing and shooting, the player must be able to propel the ball from the stick with the wrist "snap." Many beginning players pass and shoot with an arm motion, or "push" the ball, which causes the ball to leave the stick on a low trajectory resulting in a low pass or shot. An excellent way to develop the wrist snap is to utilize the wall. Go to a cinderblock or brick wall and stand approximately 5 - 6 feet away. Any wall will work (no windows), but a smooth concrete surface at least 10 feet tall is the best.

You can and will observe daily improvement if proper technique is maintained. Increase the reps, as wrists become stronger. Aim for as many reps as possible with desired form, however. This is a lefty-righty work out. Attempt to do as many reps as possible. Remember that your goal is to strengthen the wrists, to become proficient in releasing the ball with the snap of the wrists, to gain hand speed, and to develop a quick release.

Do as much as much of this routine 4-5 times a week for 15-20 minutes (no more). Beginning players should start at 30 reps with each hand before moving to a different part of the drill. Your goal should be to get through the entire drill (50 reps with each hand) with each hand in less than 20 minutes. If you only get through part of the drill, it is easy to set a goal for next time.

Proper 1 hand technique:

- Wearing gloves, hold the stick in one hand at its balance point and then place the head of the stick in the "box" area next to the ear. Then with one hand, "snap" the wrist which will cause the ball to come out of the stick in a straight line and bounce off the wall straight back into the stick kept in the box area. This will be difficult at first. Do not take shortcuts. Keep the head of the stick in the box and not down off the shoulder.

Proper 2 hand technique:

- Wearing gloves, hold the stick with your top hand approximately half way down the shaft of the stick. Your opposite hand should cover the end cap. Snap the top wrist while bringing the bottom hand towards your dominant armpit. This will help to keep your stick in a vertical position. Try to keep the head of the stick in the box at all times. Passing is like casting a fishing line. Be ready for the ball to return in a hurry. Change your foot stance as you change your hands i.e. lead with your left foot if passing from the right, and so forth. Stick protection is important.

Proper cross hand technique:

- This is similar to two-hand technique. Hold the stick such that the dominant hand is across your body. The head of the stick should be kept in the "box" near the opposite ear. This will be awkward at first but only the advanced players will get to this stage.

Remember the below drills must be performed in the correct manner, that is: stick in the box, overhand motion, and wrist snap. If your form is sloppy, such as letting the stick hang down off the shoulder, you will be slinging the ball and thus wasting your time.

DRILLS: (Beginners 30 reps with each hand)

1. 1 hand: catch and 1 cradle
2. 2 hands: catch and 1 cradle
3. 2 hands: quick stick
4. 2 hands: split drill -catch righty, switch and throw lefty/ catch lefty switch and throw righty
5. 2 hands: catch, face dodge, and throw
6. 2 hands: catch, fake, and throw
7. You must be at 50 reps with each hand before passing this point.
8. 2 hands: cross-handed
9. 2 hands: behind the back
10. 2 hands: running along the wall throwing and catching.

OFFSEASON COMMITMENT

by Tony Gray

Great lacrosse seasons and performances begin in the off-season. It is the work done in the off-season that differentiates an average player from an All-American player. Conditioning, stamina, agility and stick skills should be developed in the off-season. "What can I do during the off-season?" you say. The first thing you should do is to start your off-season conditioning program with camps. Camps are a great way of drastically improving one's ability both physically and mentally. Some of the benefits of camps are:

- learning different approaches to the game from different coaches
- playing with different caliber players
- providing opportunities for future college recruitment

OK, I understand how camps can help me improve. Now, how do I choose the right camp for me? There are several questions you should ask yourself.

1. How much time do I want to play lacrosse?
2. Do I want a camp that focuses just on lacrosse or a number of sports?
3. Do I want to travel or stay in my region?
4. Are the coaches/players attending important to me?
5. Do I want a camp that specializes in my position (Goalie, Attack, Midfield, and Defense)?
6. Are the facilities important?
7. How much time does the camp spend scrimmaging versus instruction?
8. Do I want to learn how a coach thinks about the game?

There are many more questions you can ask yourself, but this will give you a good start on picking the right camp for you. After you have picked your camp, signed up and are on your way to the camp, you must prepare for the camp itself. I would like to give you a little advice on being in camp. Being in a camp is a great experience; you get to meet other kids that share your passion and perhaps players or coaches that you admire. Just being involved in a camp does not mean that you will get something out of it.

I think to get the most out of a camp you must do the following things: experiment, work hard, concentrate, understand, and have fun. You are probably going to a camp because you want to improve a certain aspect of your game. Perhaps your off hand is weak and you want to improve it. Catch and throw with your off hand the duration of the camp. If this means pushing yourself to improve your weaknesses, then you do it. It will pay off down the road; I can almost guarantee you that. Pay attention to the drills and the coaches. They are performing certain drills for a reason. Maybe the drill is focused on shooting on the run. Don't stop, plant and shoot just because you know you can shoot the ball harder when you plant as opposed to on the run. The biggest thing I try to teach at my camps is to understand why we are doing something. If we run a drill that focuses on a formation or a defensive style, I don't want the camper to say, "OK, when he runs left, I drop step and move to the right." I want the kid to say, "when my man dodges to the left of me I am going to drop step and cut off his lane to the goal forcing him away from the middle of the field. When he is on the outside, his chances of scoring drop because his angle on the goal decreases, making it easier for the goalie to stop the shot." The final thing you should do is have fun. If you are having fun, chances are you will try harder, you will listen and concentrate better and you will run the drills more effectively.

AN OFFSEASON PERSPECTIVE

What's the best way to sharpen your stick work?

- Don Zimmerman, head coach at UMBC and one of the best teachers in the sport believes the wall is the key to sharper stickwork. "No doubt, the wall is the best way to sharpen stickwork. You can do it solo or with a partner. Do rapid fire work, throw, catch, control the ball, cradle, throw. Snap it! Repeat 100 times with each hand."
- Todd Cavallero, assistant coach at the University of North Carolina states, "I firmly believe that passing and catching using a wall or racquetball court is the best way to increase your skills. A wall or racquetball court will give you 5 times the repetitions than playing catch with a buddy. The wall never drops the ball (only you do), and the ball will come back as fast as you want it to (which also increases reps). The keys to successful wall-ball is to create game-like situations with lots of reps. The four areas of concentration are passing, catching, accuracy and stick protection."
- Dave Huntley, assistant coach of the NLL's Washington Power adds, "Come early to an NLL game and you'll see all the great players begin their warm-up by going straight to the boards and banging away." Huntley's technique is very similar to Cavallero's but he adds a few interesting wrinkles, "Try to hit the same spot and get a rhythm going, picking up the pace as you go. Switch hands, change your throwing motion to sidearm, underhand, behind the back. Use your imagination."
- Jon Weston, 'Goalieman' and assistant coach at Towson University discloses a subtle hint, "Experienced players should wear their gloves when they practice against the wall. It's too easy to develop tricky moves without gloves. Wearing gloves changes the grip, make it more realistic."

Stick maintenance is crucial to early season performance.

- Dave Huntley, former All-American midfielder at Hopkins reveals, "Players often overlook the condition of their stick. Is it in good repair? Is the pocket the way they want it? How about the shooting strings and sidewalls? Is it legal? Practice begins in cold weather and on muddy fields, not exactly ideal conditions for traditional (leather) strung sticks. You may want to start the season with a mesh setup."

What's the best way to practice shooting?

- Bill Tierney, five-time NCAA Championship coach at Princeton University shares his thoughts. "Shoot with a partner. Get a lot of balls and find an enclosed environment. Repetition is the key, take chances and aim for corners...make it fun, experiment with sidearm, under hand, behind the back. By catching and shooting quickly from different spots, with different shots, players learn to catch and score much more effectively."
- "Hot-Rod" Huntley was famous for his legendary shot. "Put the net in front of a large wall, fence or baseball backstop or on a tennis court. Work with a partner so you get used to shooting off a feed. Whether you are shooting on the run or stationary, always step towards the target. That is essential for a hard accurate shot. Practice the shots you'll get during a game."
- Coach Cavallero says, "Use a lot of balls and create game-like situations. Concentrate on moving your feet and shooting out of a dodge or while cutting to the goal. The most important element of shooting is accuracy. Once accuracy is established, work on combining location with velocity."
- Scott Marr, head coach at Albany adds, "Attackmen should work on shooting off the dodge. Come from behind the net, do your inside roll and shoot. Work on your outside roll with a shot and the rocker step with a shot. Put milk cartons in the corners of the net, and blast them to bits. Make it game like and fun."

What should defenders do to get ready for the season?

- Dave Pietramala, head coach at Johns Hopkins says, "One of the best drills for defenders is jumping rope. Doing one-on-one's at half speed can be helpful. This provides the defender an opportunity to

practice his footwork while also working on angles and technique at the goal line extended. Go slow, master the techniques first."

- Brian Voelker, head coach of the MLL's Baltimore Bay Hawks recommends variety. "Jump rope, shuffle and agility are my favorites. Play hoops with a concentration on defense. And make sure you practice 'one-on-one's' out the wazoo."

What type of running do you recommend?

- UNC's Todd Cavallero talked to us about conditioning in Chapel Hill. "I recommend a combination of endurance running (two mile runs) along with short quick timed sprints. Increasing your endurance will help you last four quarters and lacrosse is made up of short/quick bursts of speed. The combination of these two running styles along with a weight training program will benefit all athletes in preparing themselves for a rigorous spring season."
- Mark Goers, assistant coach at Ohio State University advocates a similar program. "Runs should be varied. Three days a week do medium distance...two days a week should be spent on high intensity short runs."
- Tony Seaman relates, "I don't believe that distance running above 1.5 miles does any good toward having you in shape for practice. I like jog sprints where you jog for 35 seconds and then sprint 8 seconds, then jog for 43 seconds, then sprint for 8 seconds. We do this over a 20 to 25 minute time span. It is more game-like than just jogging for 2 or 3 miles."
- Scott Marr adds, "Lacrosse is a sprint and recover sport. Focus on sprint work. We do sprints of a varied distance from 440 yards down to 20 yards. It's important to time the runs, to make it competitive and to be able to chart improvement"

What sports are best in the off-season?

- Todd Cavallero says, "The two sports that benefit young lacrosse athletes during their pre-season training are basketball and racquetball. Basketball is similar to lacrosse. Offensively: trying to find the open man, stepping into passing lanes, and moving the ball 'one more' to create a better shot. Defensively: trying to deny fast breaks, finding a man / checking up, and sliding to help a teammate. At the very worst it's excellent conditioning. Racquetball consists of short quick sprints and improves hand-eye coordination. Racquetball help increase your stop-start time and better prepare you for those situations in a lacrosse game."
- InsideLacrosse's Bob Carpenter strongly suggests basketball too. "No two games in the world are more similar than basketball and lacrosse. None. Look at the footwork, and team concepts...they are identical. They have similar ebb and flow, breathing, communication." Easy for him to say as he's about six foot ten.
- Bill Tierney thinks diversity is the best avenue for success, even in the era of specialization. "I still think that the best thing for young athletes is to play basketball or hockey during the winter season."

What skills should be focused on during indoor lacrosse?

- Todd Cavallero played at JHU in the mid 1990's says, "Youngsters who play the indoor game should focus their skills on shooting, stick protection, handling the ball in tight, dodging, and ground balls. Don't forget team concepts like drawing-and-dumping to the open man and checking up, and sliding defensively. Indoor is played with all short sticks, which allows players to hang their sticks a little farther from their body. Be careful to maintain good stick position and protection."

Weightlifting is an essential part of any off-season training regimen.

- Brian Voelker, former USA Team defender expresses his thoughts. "I don't think high school players can go wrong by doing squats or leg presses, cleans and bench press. If you concentrate on these basic 3 exercises and then branch out you'll get stronger. Focus on form first, don't worry about the amount of weight yet."

What's the best way for face-off specialists to prepare for the upcoming season?

- Mark Goers, current star for the Columbus Landsharks of the NLL recommends wrestling. "I strongly believe that wrestlers make the best face-off men. Wrestling teaches balance, total body strength, quickness and desire."

What weight lifting exercises should face-off men be concentrating on?

- Coach Goers, who dominated the face-off stripe while at Towson University says, "Total body exercises such as squats, cleans, dead lifts, dips and lunges. Start with a lightweight, perfect the technique before lifting Volkswagens. I also recommend working the forearms with reverse preacher curls and wrist rolls."
- Jon Weston of Towson University relates, "Goalies don't often improve through playing in games and scrimmages. Most of their progress is based upon adding to or changing basic technique OR getting significant numbers of controlled repetitions involving a specific situation or type of shot. Just being shot on by a wide-eyed offensive player trying to show off can be a huge confidence bruiser. Keep the learning environment safe and positive."
- Jon Weston continues, "A lazy or tired goalie will lose games he should not in the early part of the season while he is 'playing himself into shape'. Mentally the keeper has to be ready for each shot, be able to make routine saves, garner possession of the ball, and lead the defense from the goal. This is quite a challenge for any goalie and it helps if you are in shape, can breath easily while talking, and are confident with your assignments and defensive calls."

What do you do that's unique?

- Bill Tierney has patented the formula for post season success says, "The only thing we do unique at Princeton is to not start too early or make the kids get up at 6:00am. We want them to be fresh in May; therefore we don't go too crazy with practice early in the morning. We also found that our players have late hours (studying), so getting up early is more physically harmful than beneficial."
- Coach Pietramala likes to keep it simple. "Our athletes are given a strength and conditioning program that improves their strength, speed and quickness. It also helps prevent injuries. There is no secret to success. It takes hard work and dedication."

What do kids overlook prior to the season?

- Coach Cavallero relates, "The most overlooked aspect of lacrosse is how much work some individual's put in during the off-season. Don't get passed by because somebody puts in more blood, sweat, and energy than you do. Don't underestimate what others can achieve and always work harder than your opponent."
- Coach Goers replies, "Young players focus on distance running too much while neglecting sprints."
- Coach Huntley agrees, "Players tend to spend too much time weight lifting and distance running and not enough time sharpening their skills and working on their speed. For many players the first couple of weeks of practice will determine whether they are starters...or get cut. Give yourself the best chance by tuning up your game before the season begins."
- Coach Zimmerman knows how cold practice during February and March can be. "Don't overlook the importance of nutrition and staying healthy. All of the physical activity can wear down the body. Make sure you eat the right foods and take care of yourself. Wear the proper warm clothing to practice. If you get sick, you're hurting yourself and the team."

What should kids do not to get cut?

- Leif Elsmo, who has televised the NCAA finals since 1983, says, "Once a coach gets an opinion of a player, it's very difficult to change that opinion, even if he's seeing that player in "pre-season" practices. Make a good first impression."
- Coach Cavallero talks about intangibles, "When trying to make a team, I would recommend hustle, intense work ethic, and the desire to learn the game. These three aspects will go along way to the coaching staff making the final decision. Everyone does something well and contributes to their team. Play to your strengths."

THROWING THE WEIGHT

The following are the general areas that most lacrosse players will want to spend a little extra time developing:

PUSHING MOTIONS:

Triceps and chest. The pushing motions are key, especially for a defenseman. Defenders must be able to keep attackmen off their body by pushing them away while moving their feet. The pushing motions are also key for an attackman/midfielders securing elbow room on the crease, moving bodies around in a loose ball tangle, and for facing off. Remember to stress the inclined press exercise here, because most of the time when you're pushing off other people, you're also leaning forward, which puts the burden on the upper chest and shoulders. (Exercises – Bench, Incline Bench, Close Grip Bench, Tricep Extension)

FOUNDATION DEVELOPMENT:

Torso (Abdominal or Oblique) development. A strong foundation is key, regardless of the position or the situation. For offensive players, it is not as much arm strength as the twisting motion of the torso which will give you power on a whip shot. For defensive players, a strong mid-section will allow to recoil and recover after throwing a hard wrap check. (Exercises – Crunches are key to abdominal development. Always be sure to protect your lower back and retain proper form. And even more important than the up and down crunch motion is the twisting motion of the abdomen. This is called working the 'oblique' muscles. Standing shoulder to shoulder with a partner and passing an 8-LB medicine ball back and forth will work these muscles today.

Shoulders and back. Again, strong shoulders are a key to executing the diversity of the motions required by skilled stick work. Shooting, checking, facing off. In addition, shoulder exercises will make it less likely to put the arm in a compromising situation that could result in damage to the rotator cuff. (Exercises – Military Press, Pull-Ups, Upright and Bent-Over Rowing)

WRIST STRENGTH:

Wrist strength benefits stickwork offensively, defensively, face-offs, as well as in the cage. A good exercise is to sit upright on a flat bench, with 15-LB dumbbells in each hand, and let your arms hang straight at your sides. Allowing your arms to hang straight down, simply rotate the dumbbells, turning your fists outward and then inward, starting and stopping the rotation using your wrist muscles. Wrist curls with the 45lb weight bar are also very good (palms facing up and then palms facing down).

SUMMARY

All attackmen want to be able to physically assert themselves as they confront defenders, whether they are intent on finding the cage or just looking to get a step and some room to feed. And crease men, you need the ability to hold your own, because it can wear when you have everyone crashing in on your arms every time a feed comes your way. Muscular arms will always stand up better to a season of stick and body checks.

For defenders, an ability to push with real force is critical, especially against the bigger attackmen. You need the ability to keep an offensive player from bull dodging his way into your body. You need the ability to push him back, to retain the buffer zone that will allow you to throw the checks and allow your feet to recover. And then there are the times you need to slide with your body.

Agility and reaction drills are essential, but strength is also critical to being a strong cager.

Finally, middies need to work on all the above. Not only will greater strength allow you to better assert yourself on the field in all the different facets of the game, but it will also help you to withstand the physical exertion and pain tolerance that is a must for the midfield position.

Lacrosse Strength Program (Shooting)

An increase in shot speed can improve any offensive player's game. It will not only improve the chances of more playing time, but it will create more goal scoring opportunities. Shot speed is known as velocity. Velocity is a result of distance over time. Therefore, if the ball travels the same distance in less time, velocity (shot speed) is increased.

So how does one improve their shot speed?

First, shooting form is essential. Practicing shooting technique daily from all positions will help improve shot speed. The second way to improve shot speed is to strengthen the major muscles used during shooting. These muscles are the legs, the shoulders, and the back. The following are exercises that will strengthen the legs, the shoulders, and the back. Strengthening these muscle groups combined with practicing shot technique are two tools to improve shot speed.

LEGS - SQUAT, LEG CURLS, POWER CLEANS, PUSH PRESS, GLUTE HAM RAISES, STEP-UPS, LEG EXTENSIONS, LUNGES, CALF RAISES, ROMANIAN DEAD LIFT'S (RDL'S) AKA STIFF LEGGED DEADLIFT

SHOULDERS - MILITARY PRESS, SHRUGS, SIDE RAISES, UPRIGHT ROWS, FRONT RAISES, HIGH, PULLS, LATERAL RAISES

BACK - BENT OVER ROW, SINGLE ARM ROW, LAT PULLDOWN, V-BAR PULLDOWN, DEADLIFT, BACK EXTENSIONS, CABLE ROWS

THE PRINCETON APPROACH

Since the highest priority for any student athlete is academics a player's most precious commodity becomes his time. Thus, the design of this program can be summed up in one word: efficiency. The most efficient program is one that produces the maximum possible results in the minimum amount of time.

PRE-SEASON

The pre-season starts when players return for classes in the fall and continues on into the beginning of spring lacrosse season. This 6-month period prior to the season is essential for winning programs and in developing the physical preparedness of the team.

Conditioning

Lacrosse players are required to be as highly conditioned as possible. A simple conditioning test can be used to assess a player's readiness. Regardless of a player's position or body weight, all players should be able to run 1.5 miles in 9 minutes or less. The players should officially be tested four times during the pre-season.

Heavier players should be encouraged to do most of their earlier conditioning with low-impact, non-weight bearing activities (i.e. stationary bicycling) to reduce their potential for orthopedic problems that can result from the higher impact forces of running. The duration of any conditioning workout should not exceed 20 – 25 minutes. Keep in mind, that although the length of the workout is low, the intensity of the effort is extremely high.

Shuttle Runs

- Shuttle Runs are a set number of yards apart and down and back counts as 2 sprints in this drill.
- This drill is run continuous for each set. So if you have 5 Sets of 12, you will be required to run down and back without a rest six times for a total of 12 sprints. After you have completed that it will count as 1 set, then you will rest the allotted time and begin set 2.
- Benefits - This drill will help to focus on your ability to accelerate off the cut, your ability to change directions, your discipline, footspeed, and endurance. The key is to keep the distance and times accurate so you can mark improvement.

1.5 - 3.0 Mile Jogs

- For accuracy the run needs to be on a track or must be tagged for 1.5 miles and/or 3 miles
- All times should be recorded
- 1.5 in nine minutes 3.0 in 19minutes

Strength Training

Weight training should be no more than 45 minutes per workout with no or little rest during training. Players should have two total body workouts on nonconsecutive days. For example, a player can train his upper body on Monday and Wednesday and lower body on Tuesday and Thursday. The important point of Pre-Season is to not waste time sitting around in the weight room. Progression should follow that whenever the player can achieve the maximum number of prescribed (see below) repetitions they increase the weight resistance until muscle fatigue is reached. Since there is no significant differences in strength improvement when comparing single sets to multiple, the key is to push to the right level of muscle fatigue whether it be one set or four.

Repetitions for muscle fatigue should fall within these ranges:

- 18 to 20 repetitions for hips, shoulders, back, abdominal, and oblique
- 10 to 12 repetitions thighs, neck, and chest

- 13 to 15 repetitions calves, biceps, and triceps

It is important that all weightlifting be controlled and deliberate in both speed and movement. Furthermore, players should perform the exercise at the greatest possible range of motion that safety allows.

IN-SEASON TRAINING

The lacrosse team generally begins the season the last week of February – the first week of practice permissible by the IHSA – and ends as late as the first week of June – State Championships. The in-season training should focus on more lacrosse-related agility and drilling with a big reduction in the strength and weightlifting part of the program

Conditioning

Once the season begins, most of the team's conditioning work is done during practice. The primary focus should be short distances with recovery intervals. As the progression of conditioning program goes longer the players should be given shorter intervals of recovery. The object is to be the best come the later parts of the lacrosse game. Strike your opponents when they are at their weakest.

Recovery Runs

- Benefits - This drill is reenactment of the aerobic activity the body goes through in an actual game. Lacrosse like basketball is a game of almost constant sprint and recovery. The key is to always keep jogging and to really explode for those sprints. It will be necessary to have a stopwatch for this drill.

Corners

- 1 corner equals one lap around a football, lacrosse, or soccer field (approximately 320 yards).
- Benefits - Stamina with speed is the key to being a lacrosse player. The important point in corners is to track time progression.
 - Week 1 - (8 Corners each under 1 Minute). A one-minute rest should follow each corner. 10 corners if time requirements for any corner are not met.
 - Week 2 - (10 Corners each under 1 Minute). A 55-second rest should follow each corner. 12 corners if time requirement for any corner is not met.
 - Week 3 - (12 Corners each under 1 Minute). A 55-second rest should follow each corner. 14 corners if time requirement for any corner is not met.
 - Week 4 - (12 Corners each under 1 Minute). A 45-second rest should follow each corner. 14 corners if time requirement for any corner is not met.
 - Week 5 - (10 Corners each under 1 Minute). A 40-second rest should follow each corner. 12 corners if time requirement for any corner is not met.

Strength

The players should lift no more than once or twice a week with a rule of never lifting the day after or before a match. Their strength conditioning should allow for a lot of stretching prior to their exercises with most focus on chest, upper back, and shoulders.

OFF-SEASON

The off-season – essentially the summer months – is basically focused on improvement. Some of the similar exercises should be used with a lighter focus as to not fall to burn out. Players should focus on strength training, conditioning, skill work, flexibility, and nutrition. Players should also use the extra summer time to keep a journal so as to track and measure performance, speed, and other improvements.

EFFORT = SUCCESS

“Successful seasons are not built on occasions of hard work or moments of brilliance; success comes from the consistency of effort at high intensity.”

Exercise	Sets x Reps	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Power Cleans	3 x 10,8,6	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
Squats	3 x 12,10,8	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
RDL's	3 x 10,8,6	M	M	M	M	M	M	M	M	M	M	M	M
DB Lunges	3 x 10,8,6	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
Cal/Raises	3 x 25	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
Leg Curls	3 x 15	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th
BB Step Ups	3 x 12,10,8	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th
Bent Over Row	4 x 10,8,6,6	M	M	M	M	M	M	M	M	M	M	M	M
Cable Row	3 x 10,8,6	M	M	M	M	M	M	M	M	M	M	M	M
Pull Ups	3 x Max			M									
V-Bar PD	3 x 12,10,8	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F
Lat-Bar PD	3 x 12,10,8	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th
Single Arm Row	3 x 12,10,8	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th	Th
Side Raises	3 x 12,10,8	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
Upright Rows	3 x 10,8,6	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
BB Strugs	3 x 10,8,6	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
Height Pulls	3 x 10,8,6	F	F	F	F	F	F	F	F	F	F	F	F
Front Raises	3 x 12,10,8	F	F	F	F	F	F	F	F	F	F	F	F
Reverse Pec Del	3 x 12,10,8	F	F	F	F	F	F	F	F	F	F	F	F
Bench Press	3 x 10,8,6	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
DB Bench Press	3 x 10,8,6	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
Incline Flys	3 x 12,10,8	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu	Tu
Incline Press	3 x 10,8,6	F	F	F	F	F	F	F	F	F	F	F	F
DB Incline	3 x 10,8,6	F	F	F	F	F	F	F	F	F	F	F	F
Flat Bench Fly	3 x 14,12,10	F	F	F	F	F	F	F	F	F	F	F	F
Straight Bar Curls	2 x 25	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
Seated Curls	3 x 10,8,6	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th	M, Th
Skull Crushers	3 x 10,8,6	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F
Dips	3 x Max	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F	Tu, F
Ab's	6 x 25	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F	M, Tu, Th, F

> B-B - Bartell > MAX - Maximum Number of Reps

> PD - Pulldown > RDL's - Romanian dead lifts (Stiff Legged Deadlift)

No more than 1 minute of rest between sets

SPEED SCHOOL

Jump Rope

Jumping rope is great in terms of fitness and, most importantly, footwork, an integral part of lacrosse. The following exercises can be used as a warm-up or as supplemental work done on any day. Simply increase the number of jumps as you get better.

To set this up, mark off the floor into four boxes about two feet by two feet each. Box No. 1 is the top left corner and the numbers should increase clockwise up to No. 4.

1. Regular Jump x 30
2. Side to Side (4 to 3 and back) x 20
3. Up and Back (4 to 1 and back) x 20
4. Boxer Shuffle (Two on right foot, two on left foot) x 30
5. One Foot Up and Back (4 to 1 and back) x 10 each
6. One Foot Side to Side (4 to 3 and back) x 10 each
7. Triangle (1-2-4) x 20
8. Four Square (1-3-2-4) x 20
9. Double Jump Bounce (Two Jumps per Rope Rotation) 2x20 each
10. Double Jump Succession (Two rope Rotations per Jump) 2x20 each

100-Yard Sprint Ladder

Distance/Time/Rest

1. 10 yards / 2 seconds / 10 seconds
2. 10 yards / 2 seconds / 10 seconds
3. 20 yards / 3 seconds / 15 seconds
4. 20 yards / 3 seconds / 15 seconds
5. 40 yards / 5 seconds / 20 seconds
6. 40 yards / 5 seconds / 20 seconds
7. 60 yards / 8 seconds / 30 seconds
8. 60 yards / 8 seconds / 30 seconds
9. 80 yards / 11 seconds / 40 seconds
10. 80 yards / 11 seconds / 40 seconds
11. 100 yards / 14 seconds / 45 seconds
12. 100 yards / 14 seconds / 45 seconds

5 Minute Break

1. 100 yards / 14 seconds / 45 seconds
2. 100 yards / 14 seconds / 45 seconds
3. 80 yards / 11 seconds / 40 seconds
4. 80 yards / 11 seconds / 40 seconds
5. 60 yards / 8 seconds / 30 seconds
6. 60 yards / 8 seconds / 30 seconds
7. 40 yards / 5 seconds / 20 seconds
8. 40 yards / 5 seconds / 20 seconds
9. 20 yards / 3 seconds / 15 seconds
10. 20 yards / 3 seconds / 15 seconds
11. 10 yards / 2 seconds / 10 seconds
12. 10 yards / 2 seconds / 10 seconds

Long Intervals

Level 1 (1:30 Rest Between Reps)

1x800, 2 Minute Rest, 2x600, 3 Minute Rest, 3x400, 3 Minute Rest, 4x200

Level 2 (1:30 Rest Between Reps)

1x600, 2 Minute Rest, 3x400, 3 Minute Rest, 5x200, 3 Minute Rest, 7x100

Level 3 (1:30 Rest Between Reps)

2x400, 2 Minute Rest, 4x200, 3 Minute Rest, 6x100, 3 Minute Rest, 8x80

Short Intervals

Level 1 (1:30 Rest Between Reps)

1x400, 3 Minute Rest, 3x200, 3 Minute Rest, 6x100, 3 Minute Rest, 8x80, 3 Minute Rest, 6x60

Level 2 (1:30 Rest Between Reps except 6x20's, 10's)

1x200, 2 Minute Rest, 8x100, 3 Minute Rest, 6x60, 2 Minute Rest, 6x40 2 Minute Rest, 6x20, 90 Second Rest, 6x10

Level 3 (1:30 Rest Between Reps except 6x20's, 10's)

8x100, 2 Minute Rest, 6x60 2 Minute Rest, 6x40, 90 Second Rest, 8x20, 1 Minute Rest, 10x10

OHIO STATE'S STRENGTH PROGRAM

Monday	Weeks 1 & 2	Weeks 3 & 4	Weeks 5 & 6	Week 7	Week 8
Warm-Up	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Upper-Body Stretch	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Crunches	2x50	2x50	2x50	2x50	2x50
Seated V-Twist Crunches	4x50	4x50	4x50	4x50	4x50
Toes-Up Crunches	4x50	4x50	4x50	4x50	4x50
Dumbbell Shrugs	3x8	3x8	3x8	3x6	3x6
Bench Press	3x10	3x8	4x6	4x5	4xMAX
Dumbbell Incline	3x10	3x8	4x6	4x5	4xMAX
Shoulder Press	2x10	2x10	2x10	2x10	2x10
Bicep Curls	3x10	3x10	3x10	3x10	3x10
Lying Tricep Extensions	3x10	3x10	3x10	3x10	3x10
Superman	2x15	2x15	2x15	2x15	2x15
Wrist Curls	2x20	2x20	2x20	2x20	2x20

Tuesday	Weeks 1 & 2	Weeks 3 & 4	Weeks 5 & 6	Week 7	Week 8
Warm-Up	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Lower-Body Stretch	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Crunches	2x50	2x50	2x50	2x50	2x50
Seated V-Twist Crunches	4x50	4x50	4x50	4x50	4x50
Toes-Up Crunches	4x50	4x50	4x50	4x50	4x50
Squats	3x10	3x8	4x6	4x5	4xMAX
Lat Pulldowns	3x10	3x10	3x10	3x8	3x8
Leg Curls	3x10	3x10	3x10	3x10	3x10
Leg Extensions	2x10	2x10	2x10	2x10	2x10
Hypers	2x15	2x15	2x15	2x15	2x15

Thursday	Weeks 1 & 2	Weeks 3 & 4	Weeks 5 & 6	Week 7	Week 8
Warm-Up	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Upper-Body Stretch	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Crunches	2x50	2x50	2x50	2x50	2x50
Seated V-Twist Crunches	4x50	4x50	4x50	4x50	4x50
Toes-Up Crunches	4x50	4x50	4x50	4x50	4x50
Dumbbell Shrugs	3x8	3x8	3x8	3x6	3x6
Dumbbell Bench	3x10	3x8	4x6	4x5	4xMAX
Dumbbell Military	3x10	3x8	4x6	4x5	4xMAX
Dumbbell Flat Flies	3x10	3x8	4x6	4x5	4xMAX
Bicep Curls	3x10	3x10	3x10	3x10	3x10
Dips	2x10	2x10	2x10	2x10	2x10
Superman	2x15	2x15	2x15	2x15	2x15
Wrist Curls	2x20	2x20	2x20	2x20	2x20

Friday	Weeks 1 & 2	Weeks 3 & 4	Weeks 5 & 6	Week 7	Week 8
Warm-Up	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Lower-Body Stretch	5 Minutes	5 Minutes	5 Minutes	5 Minutes	5 Minutes
Crunches	2x50	2x50	2x50	2x50	2x50
Seated V-Twist Crunches	4x50	4x50	4x50	4x50	4x50
Toes-Up Crunches	4x50	4x50	4x50	4x50	4x50
Lunges	3x10	3x8	4x6	4x5	4xMAX
Lat Pulldown	3x10	3x10	3x10	3x10	3x10
Romanian Dead Lifts	2x10	2x10	2x10	2x10	2x10
Rows	2x10	2x10	2x10	2x10	2x10
Calf Raises Both	2x50	2x50	2x50	2x50	2x50
Calf Raises Left	2x25	2x25	2x25	2x25	2x25
Calf Raises Right	2x25	2x25	2x25	2x25	2x25