16 WEEK

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IN-SEASON & OFF-SEASON

FREE THROWING PROGRAM

DRIVELINE BASEBALL

CONTENTS

THIS PROGRAM

should be undertaken only by skeletally mature athletes who are medically cleared to throw.

As a general rule of thumb, we recommend the program in this book for high school aged athletes, those whose growth plates have closed, which typically occurs around 16-17 years of age, and who have a solid base of throwing.

ARM INJURIES

Any athlete that has recently undergone a throwing arm injury that has required them to miss 2+ months of throwing needs to first finish any prescribed physical therapy and complete a physical therapist's or doctor's throwing program before starting this program.

You must be medically cleared to pitch.

We have a free Return to Throwing Program that is a more gradual on-ramp to address any underlying arm fitness issues post-PT which you can bring to your PT or consulting physician for guidance and clearance.

DO NOT DO THIS PROGRAM IF:

You are younger than 16, we would recommend our free youth training program instead.

You are not medically cleared to pitch (use your PT program or give them our Return to Throwing Program).

You have yet to complete a return to throw program created by your doctor or physical therapist in favor of starting either our Return to Throwing Program or this On-Ramping Program.

HOW TO GET THE MOST OUT OF THIS PROGRAM

1. DO THE PROGRAM AS LAID OUT

Velocity creation and improved performance are deliberate processes, there are no shortcuts for time and hard work. Follow the prescribed throwing volume and intensity for each day, and resist the urge to do more simply because you may feel good on a certain day. We've created velocity and PULSE arm speed execution guidelines to help you stay within the right intensity each day.

2. DO THIS PROGRAM EXCLUSIVELY

Do not mix and match this program with others. Any quality program is built upon itself and will be less effective if it's combined with a different program. Following one program perfectly is far better than following multiple programs partially.

3. DO THIS PROGRAM IN THE OFF-SEASON

This program is meant to be performed in the off-season while not playing in any games. Even if you are not pitching, throws made from the infield/outfield still count and will interfere with the effectiveness of this program.

COMMON **MISTAKES**

This program works as written. Results do not come by mixing and matching programs or picking what days you want to do and only performing them

1. **Doing too much too fast.** It is common for athletes to perform too much throwing or at too high of an intensity based on what their program says. For example, if you have a recovery day, try and ensure your arm speed is much lower than that of a velocity day. Furthermore, it would not be recommended to perform more than the prescribed amount of high-intensity throws. When it comes to high-intensity throwing, more is not better. Throwing program compliance is extremely important and should be taken very seriously.

2. **Skipping the on-ramp or doing the on-ramp along with other velocity programs.** This is too much work. We wrote our program to be done by itself. The on-ramp phase is extremely important to prepare your body to accept the stress of throwing at high intent. Mixing them doesn't give you the best of both worlds. It gives you both of the stressors. You will be overworked and under-recovered, increasing your injury risk and potentially hurting your velocity.

3. **Doing offseason throwing programming when in season.** If you are playing games, do the in-season program. Gains can be made in-season, but during the season it is time to compete first and foremost. If you are trying to do velocity work on top of playing games, you are not only risking that your in-game performance will suffer, but also putting yourself at a higher risk of injury.

4. **Throwing to warm-up rather than warming up to throw.** Warm Up. Train. Recover. There is a specific reason warm-up and recovery drills are over 50% of the program time. They matter.

INTRO TO STRESS

The Role of Stress

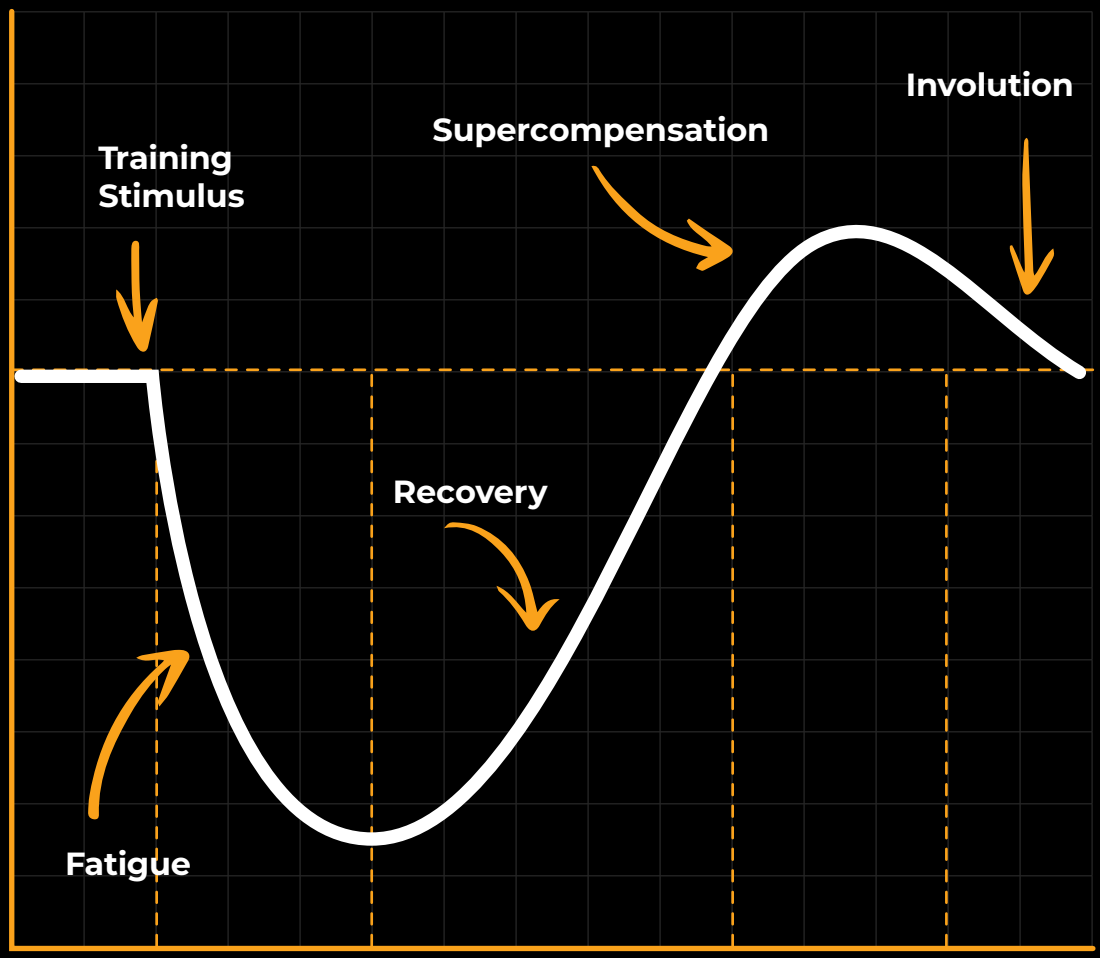
For the properly prepared athlete, the right amount of stress is a positive. It creates positive tissue adaptations through the mechanism of supercompensation - stressed tissue (given sufficient time to recover) will add capacity, increasing its overall fitness.

For an untrained, over-tired or unrecovered athlete, stress is a negative, leading the athlete on a downward spiral to poor performance and risk of injury.

A pitcher's body will adapt to the specific demand that is being applied to it. If a stressor stays the same, week after week, month after month, adaptation stops.

Throwing programming should be closer to how lifting programming is done. Specific days have goals and set intensities and volumes. Each day that we program has a purpose and each week has a specific order of days. Some days have lower throws and intensities, while others have higher volumes and intensities.

Figure 1:
General Workout/Recovery Cycle



OFF DAYS ARE
OFF DAYS.
DON'T THROW.

IMPORTANCE OF RECOVERY

Adding more work doesn't make a good program better. It is common for athletes and coaches to start out thinking, "if high intent throwing once a week is good, then doing it every day is 7x better" This is a flawed approach and neglects how important recovery is. You might make yourself over-trained or put yourself at increased risk of an injury.

Below is a basic breakdown of training activities by time spent per week during the off-season for an on-boarded athlete training in-gym at Driveline Baseball:

1. WARM UP	2. THROWING PROGRAM
25-35%	15-25%
3. HIGH INTESITY THROWS	**4. RECOVERY**
2.5-7.5%	30-50%

55-70% of the time is spent on warm-up and recovery. If you want to see benefits from high-output training of any kind (lifting, throwing, etc.) you have to be willing to put in time doing the boring prep work.

EQUIPMENT
USED IN THIS PROGRAM

PlyoCare Balls

1500g
1000g
450g
225g
150g
100g

PlyoCare Balls are meant for sub-maximal and constraint training. They're meant to be paired with specific drills to change a player's mechanics. Our day-to-day drills are done using PlyoCare Balls of a variety of weights. Each day has a specific purpose with the number of drill throws along with specific intensities and volumes.
*optional: new plyos

Leather Weighted Baseballs

11oz
9oz
7oz
6oz
4oz
3oz

Weighted baseballs are meant for warming up in catch play and high intent throwing when scheduled.

Wrist Weights

2.5kg or 5kg

Stronger, more physically mature athletes should use the 5kg

Resistance Bands

J-Bands

Optional: Shoulder Tube
Optional: Radar Gun
Having access to a radar gun is not only crucial for measuring progress over time, but also for ensuring you are executing the program as written.
Optional: PULSE Throw Workload Monitor
While it is optional, utilizing PULSE is a strong and highly recommended addition to this program. A program, no matter how well constructed, is only as effective as the athlete's ability to complete it as intended. We use PULSE to ensure our athletes have an accurate count of the total number of throws they are making and the intensity of those throws.
Increase progress, decrease injury risk

JAEGER BAND ROUTINE

Forward Fly

Start with your back to the bands with arms out in a T position. Bring your arms together in front of you and then lift them straight up overhead. Then retrace your steps bringing your arms down directly in front of you and then back to the T position to complete the rep.

Reverse Fly

Start facing the bands with arms straight out in front of you. Move your arms to your side into a T pose. Without shrugging your shoulders, move your arms straight up overhead. Then retrace your steps bringing your arms back down to a T position and then back in front of you to complete the rep.

Tricep Extension

Start with your back to the bands and elbows up at shoulder height in front of you and elbows bent so that your hands are next to your ears with palms facing down towards your shoulders. While keeping your upper arms parallel to the ground, straighten your arms finishing with your hands rotated so that thumbs are pointed down. Then return to the curled position with palms facing towards you to complete the rep.

Bicep Curls

Start facing the bands with arms straight out in front of you at shoulder height and hands rotated so that thumbs are pointed down. While keeping your upper arms parallel to the ground, perform a traditional bicep curl motion finishing with your palms facing towards you. Then return the arm to a straight position with thumbs pointing down to complete the rep.

Internal Rotation

Start with your throwing shoulder facing the bands with both arms held at shoulder height in front of you and elbows bent inward at 90 degrees so the throwing forearm rests on top of the non-throwing forearm. From here, rotate the throwing forearm and hand from the starting position parallel to the ground 90 degrees so that they're pointing directly upwards. Then return the forearm and hand 90 degrees downward back to the position parallel to the ground to complete the rep.

External Rotation

Start with your non-throwing shoulder facing the bands with both arms held at shoulder height in front of you and elbows bent inward at 90 degrees so the throwing forearm rests on top of the non-throwing forearm. From here, rotate the throwing forearm and hand from the starting position parallel to the ground 90 degrees so that they're pointing directly upwards. Then return the forearm and hand 90 degrees downward back to the position parallel to the ground to complete the rep.

WRIST WEIGHT ROUTINE

Pronation Swings

Start with your arms hanging to your side. Swing them up with your palms facing up and away from you. As your arms reach shoulder height, smoothly turn your hands over and allow your arms to swing down with your palms facing downward.

Two-Arm Throws

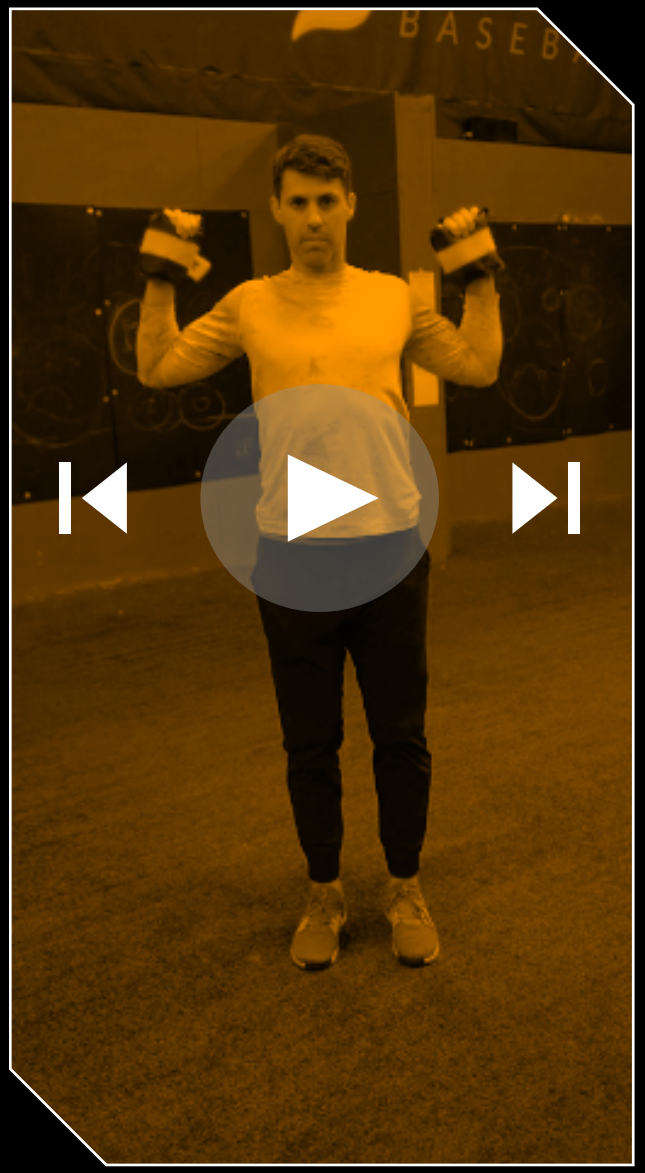
Start with your elbows up at shoulder height in front of you and elbows bent so that your hands are next to your ears with palms facing down towards your shoulders. From here extend your hands out much like making an overhead soccer throw and turn your thumbs down as your arms get near straight. From here, let your arms continue their motion and fall down to your sides to complete the rep.

Cuban Press

Start with hands hanging at your sides. Raise your elbows to shoulder height with your hands still hanging below. From here, flip your hands up so that they're directly above your elbows before raising your arms straight up in the air. Then retrace your steps back down to complete the rep.

Pivot Pickoffs

Start with hands in front of your chest and throwing side foot staggered slightly ahead of the other. From here make a motion as if delivering an easy throw to a target directly ahead of you.



SHOULDER TUBE ROUTINE

Overhead flexion

Start with your arm hanging in front of your hip with your palm facing back towards you. While keeping your arm straight, raise it in front of you all the way until it's straight above you. Try to do so without shrugging your shoulders. Then retrace your steps to complete the rep.

Lateral flexion

Start with your arm hanging at your side with your palm facing toward you. While keeping your arm straight, raise it to your side as far as you can go without shrugging your shoulders. Then retrace your steps to complete the rep.

ER/IR

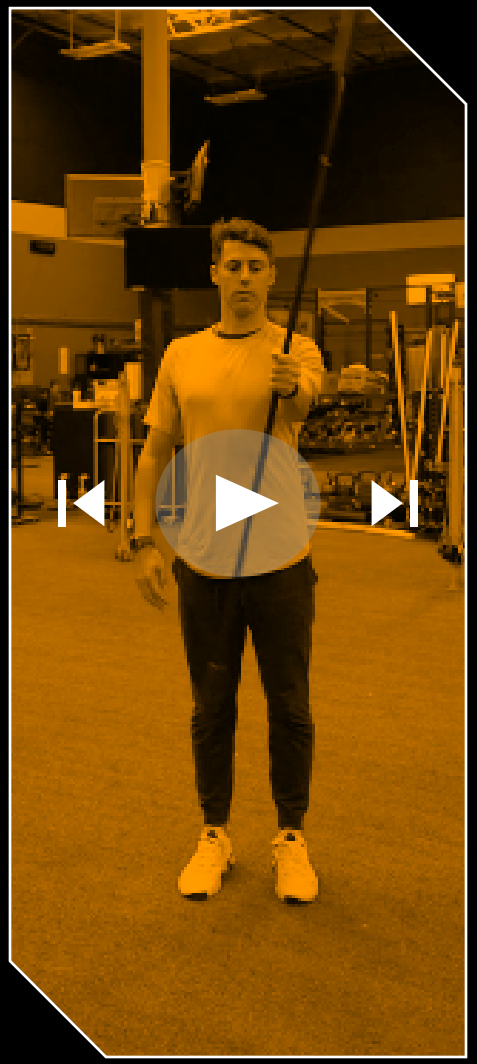
Start with your arm at your side with your elbow bent at 90 degrees in front of you with your hand facing inwards. Move your hand inwards until it gets to your stomach and then outwards until it's at 180 degrees from your body before returning to the original position to complete the rep.

Shoulder Isolations or Pronation /Supination

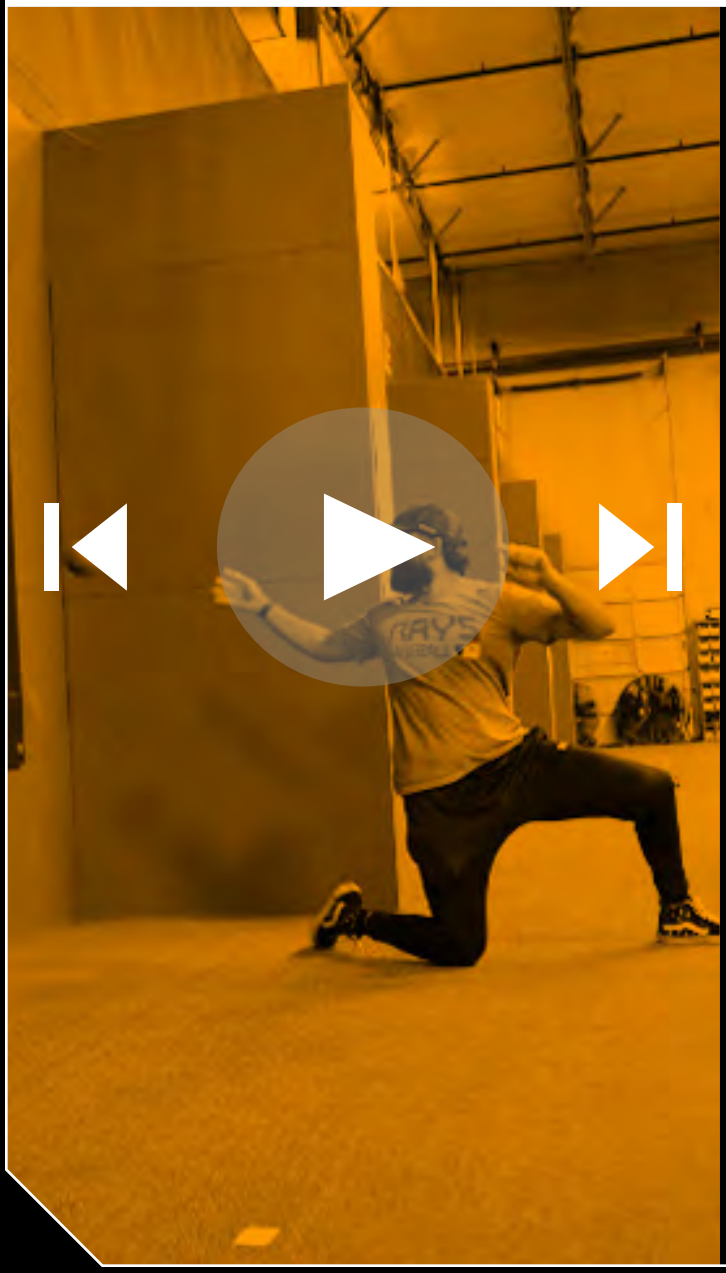
Start with your arm straight out directly in front of you. While using your wrist to slowly rotate the shoulder tube from max pronation to max supination, shake the shoulder tube forward and backward using the movement of your shoulder to shake the tube instead of movement of your elbow. Once you've moved your wrist from neutral to maximally pronated to maximally supinated and then back to neutral you have completed one rep.

Throwing Motion

Go through the entire throwing motion from a stretch delivery both forward and backward to complete one rep.



REVERSE THROWS



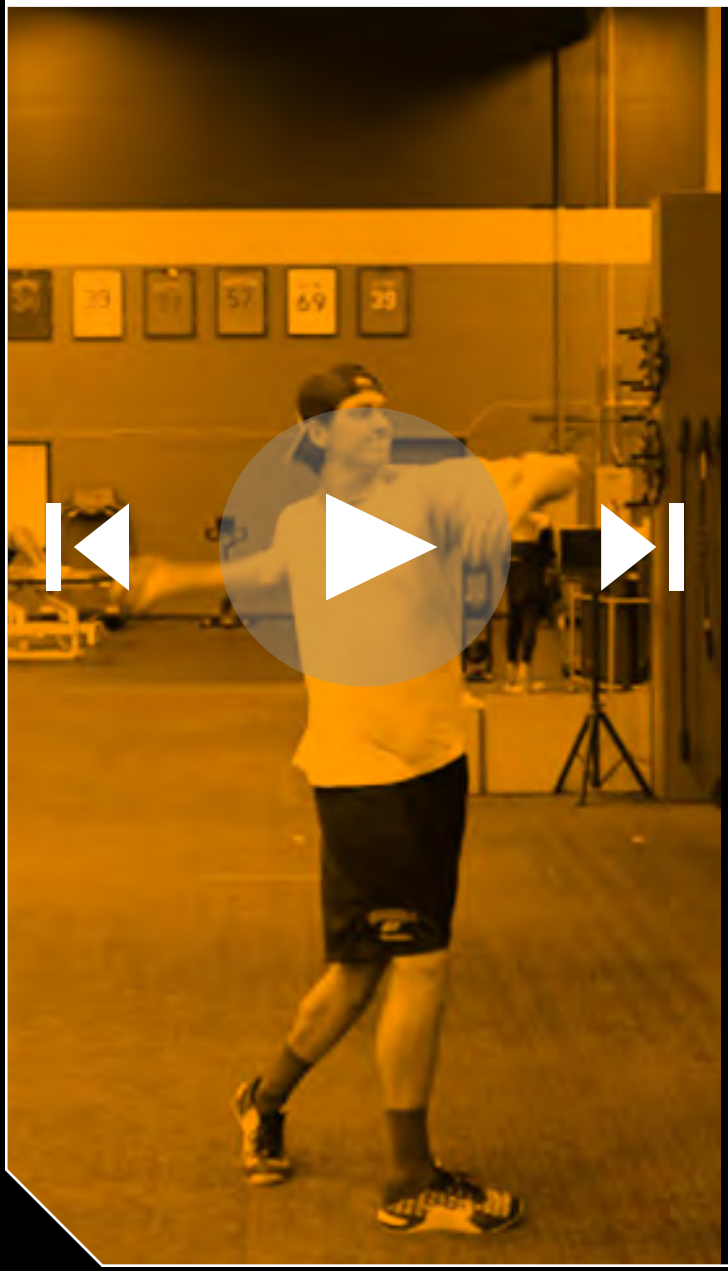
Start by kneeling on your throwing side knee and begin with the ball in your throwing hand next to your front foot. From there, drive your elbow back and drive the ball backward toward a target behind your throwing side ear, all while keeping your front knee stationary.

WHY:

This is a simple warmup to get the posterior shoulder and thoracic spine warm and also allows the athlete to feel the pelvis rotating around a fixed front leg.

PLAY VIDEO

PIVOT PICKS



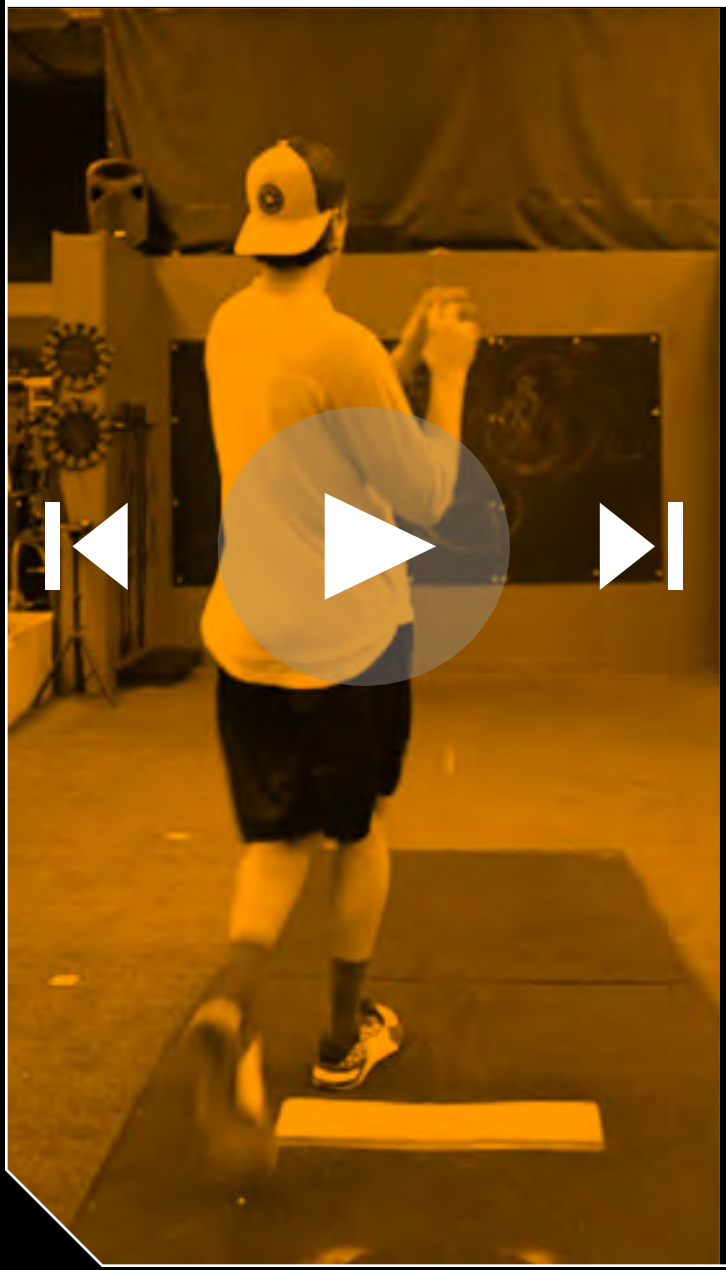
Start with your throwing side foot staggered slightly ahead of the other and your arms hanging comfortably. From here, deliver a fluid throw to a target that is eye height on your throwing arm side.

WHY:

This drill removes some of the extra variables in the delivery and naturally allows the athlete to focus on both arm action and the transfer of energy from pelvis to torso to arm.

PLAY VIDEO

ROLL-INS



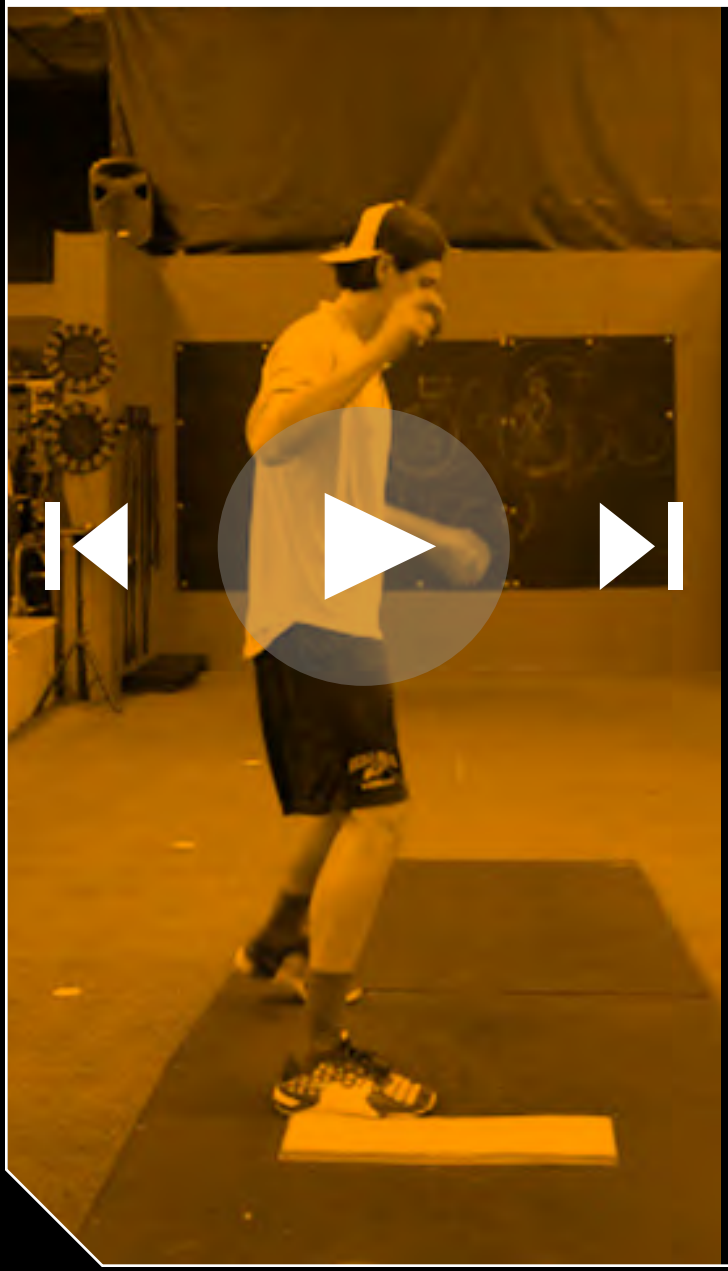
Start with your entire body facing the target. While keeping your toes pointed towards the target, make a small step towards the target with the throwing side foot followed by a larger step with the opposite foot. As you're making the larger step, counter-rotate the torso away from the target and then deliver the throw to a target eye height on your throwing arm side.

WHY:

Roll-Ins are a great drill for allowing the athlete to feel disconnection between the pelvis and torso and can provide the exaggerated feeling of the pelvis landing open in a position to block efficiently.

PLAY VIDEO

STEP BACKS



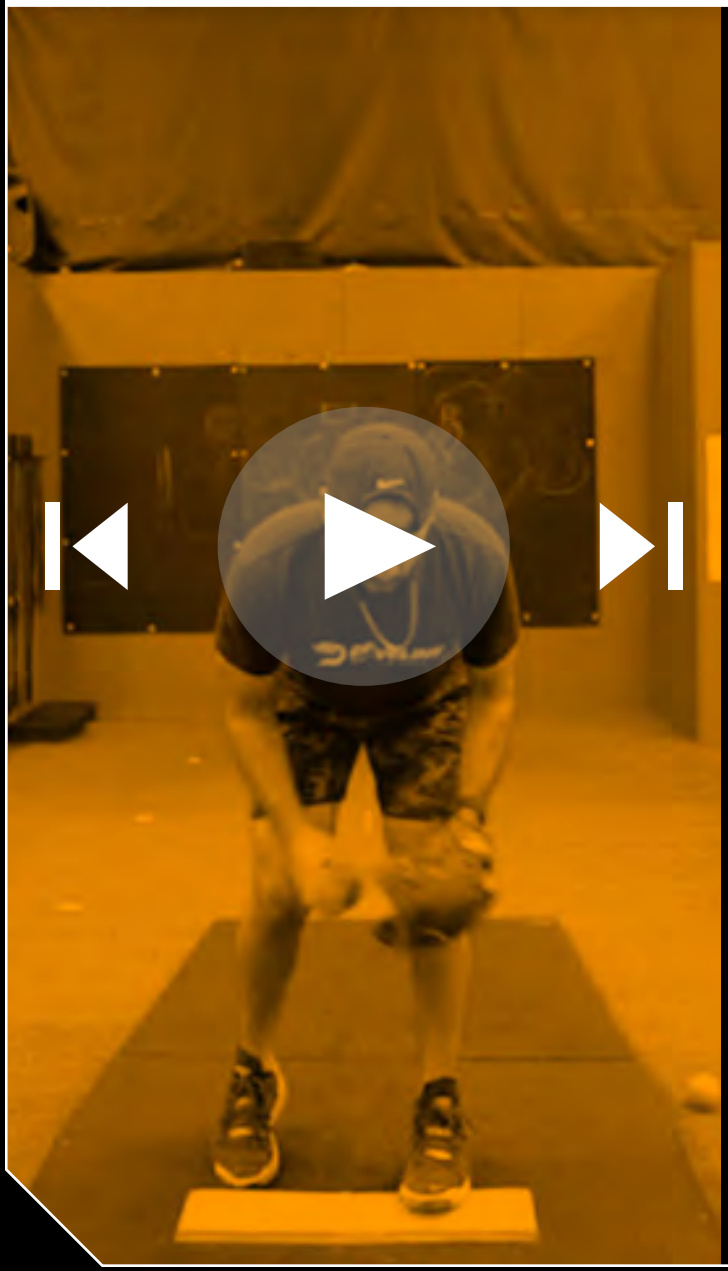
Start with shoulders pointing towards the target similar to a set position. Step back towards second base with the back foot into a strong stable position and then ride that back leg down the slope towards the target to deliver a throw to a target eye height on your throwing arm side.

WHY:

This drill provides the feeling of riding the back leg down the slope and is excellent for athletes who instead have trouble jumping or extending off their back leg towards the plate.

PLAY VIDEO

DROP STEPS



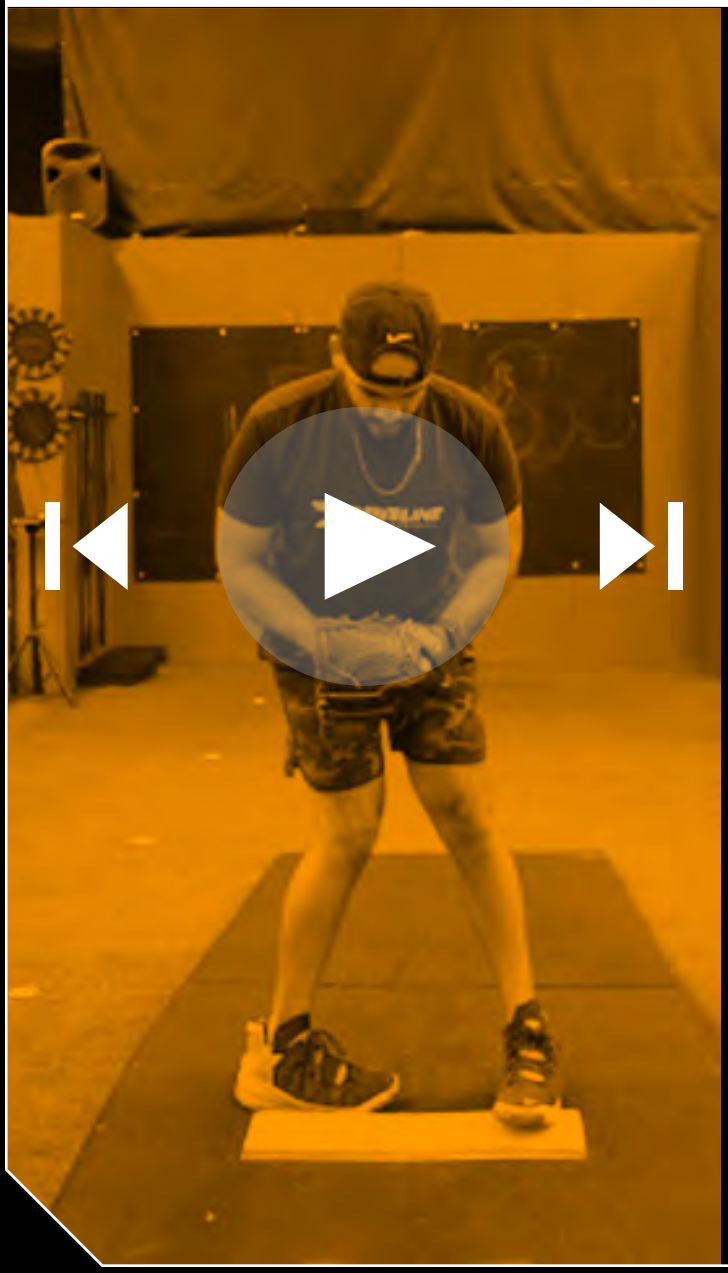
Start with your back to the target. Using a small step with the throwing side foot and an aggressive stride with the other foot, turn towards and gain ground towards the target and deliver a throw to a target eye height on the throwing arm side.

WHY:

Drop steps prompt the athlete to be athletic and move down the mound quickly and also put them in a position that naturally encourages proper sequencing between pelvis and torso.

PLAY VIDEO

JANITORS



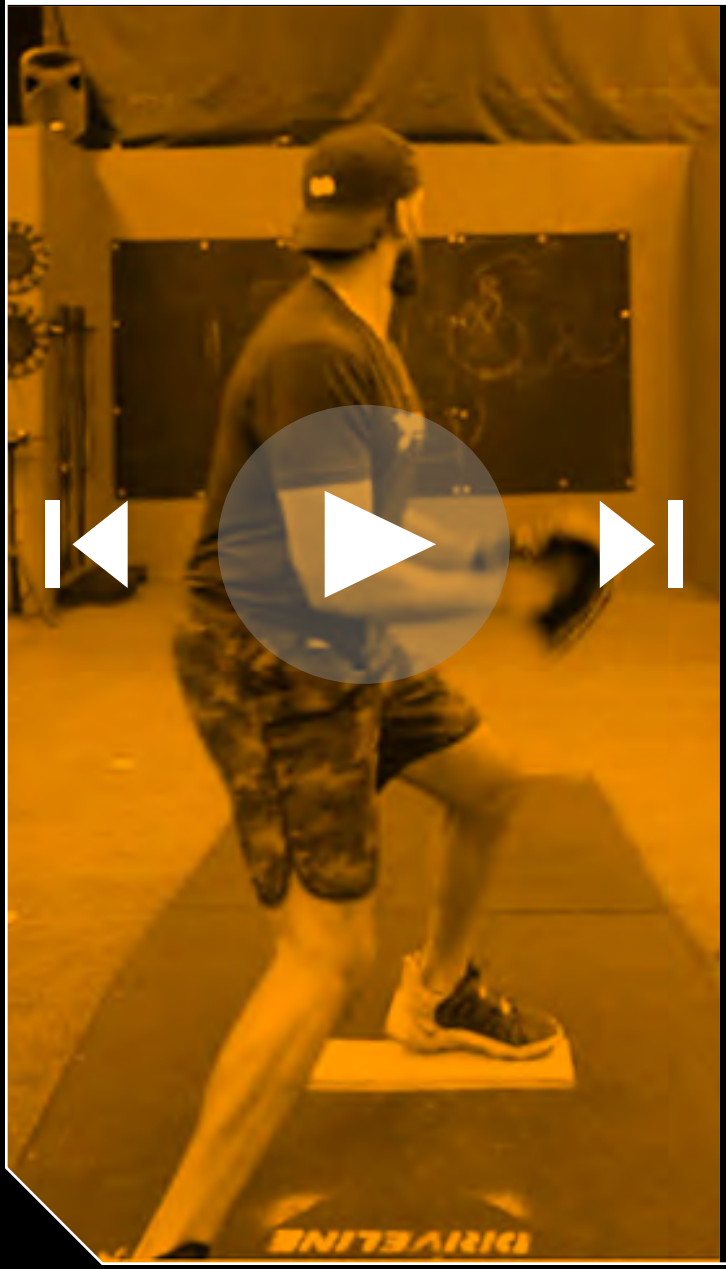
Start in a set position with the foot against the rubber. While keeping your back leg fixed, inch your front foot around your back leg towards second base. Once you've counterrotated your front leg and pelvis against a fixed back leg, pick up your front leg and deliver a throw to a target at eye height on the throwing arm side.

WHY:

Similar to drop steps, janitors organically encourage more separation between pelvis and torso and preset a position where the back leg is driving pelvic rotation.

PLAY VIDEO

STEP BEHINDS



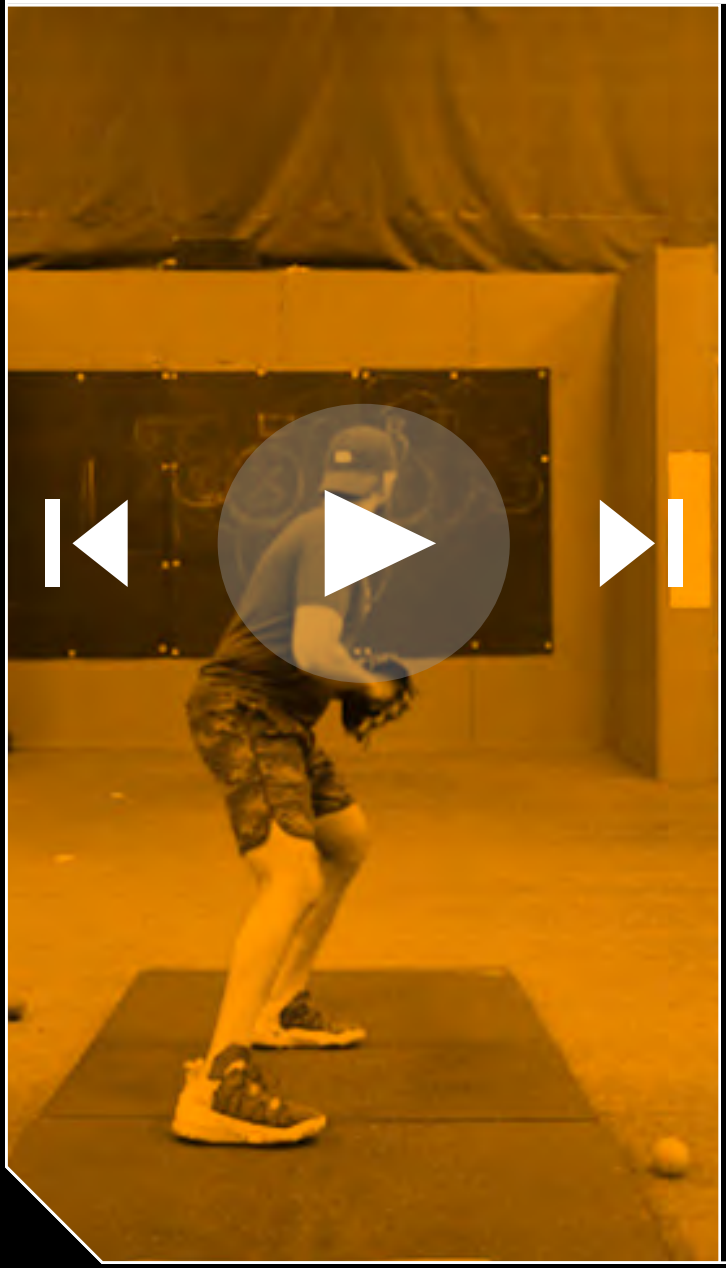
Start with your shoulders pointed towards the target in an athletic position. Bring the back foot behind the front and then stride with the front foot like making a normal throw in order to deliver a throw to a target at eye height on the throwing arm side.

WHY:

This is another excellent drill for moving quickly and athletically down the mound and also presets the pelvis in a position where the back leg can organically drive pelvic rotation.

PLAY VIDEO

ROCKERS



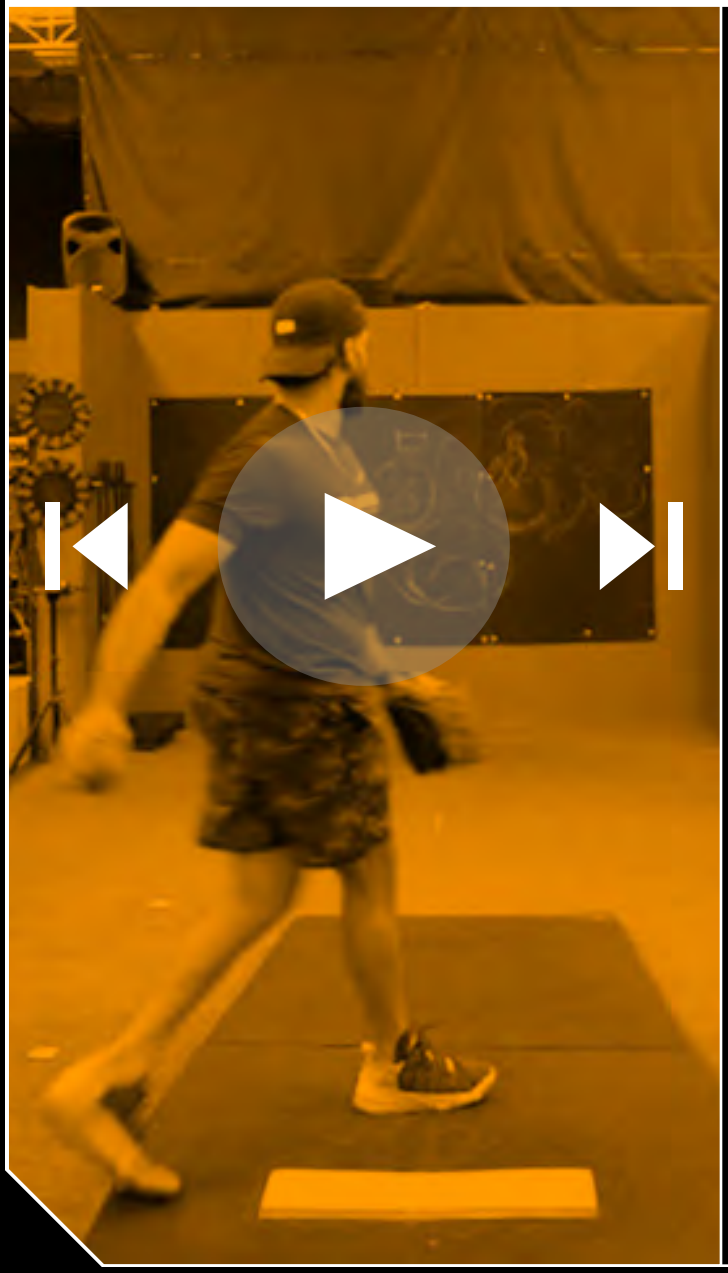
Start with your shoulders pointed towards the target and your legs in a wide but comfortable stance. While keeping your torso upright, rock both your hips and torso forwards towards the target and back towards second base. As your weight works back towards second base, lift your front leg and deliver a throw to a target at eye height on the throwing arm side.

WHY:

This drill can be used to allow an athlete to gain a feeling of athletically transitioning their center of gravity down the slope.

PLAY VIDEO

WALKING WINDUPS



Start standing behind the mound. You'll take a step with your back foot placing it against the rubber and continue the wind-up motion utilizing that extra momentum to deliver a throw to a target eye height on the throwing arm side.

WHY:

This drill brings the whole throw together by mimicking a complete windup delivery with the addition of a little forward momentum to help transition the athlete's center of mass down the slope faster.

PLAY VIDEO

PLYOCARE ROUTINE GUIDELINES

So what makes a Driveline PlyoCare routine? The three primary components are the following

1

WHICH PLYOCARE BALLS YOU USE

We use different balls with varying drills for a number of reasons. Different athletes respond better to certain ball weights due to contrasts in strength and skill among other reasons. Some athletes simply prefer certain ball weights for specific drills, which we encourage. We will also frequently adjust which plyos an athlete uses depending on the intensity of their throwing day.

2

WHICH DRILLS YOU DO

This depends on the athlete and what we are trying to accomplish. Every athlete will begin every throwing day with reverse throws and pivot pickoffs, as those are excellent warmups and don't require high intensity. On throwing days with higher volume and intensity, we will add three or four additional PlyoCare drills of which walking windups are always the last. Different drills will address different deficiencies and can help to cue desired movement patterns without the athlete having to consciously think about it.

3

WHAT CUES YOU USE WITH THOSE DRILLS

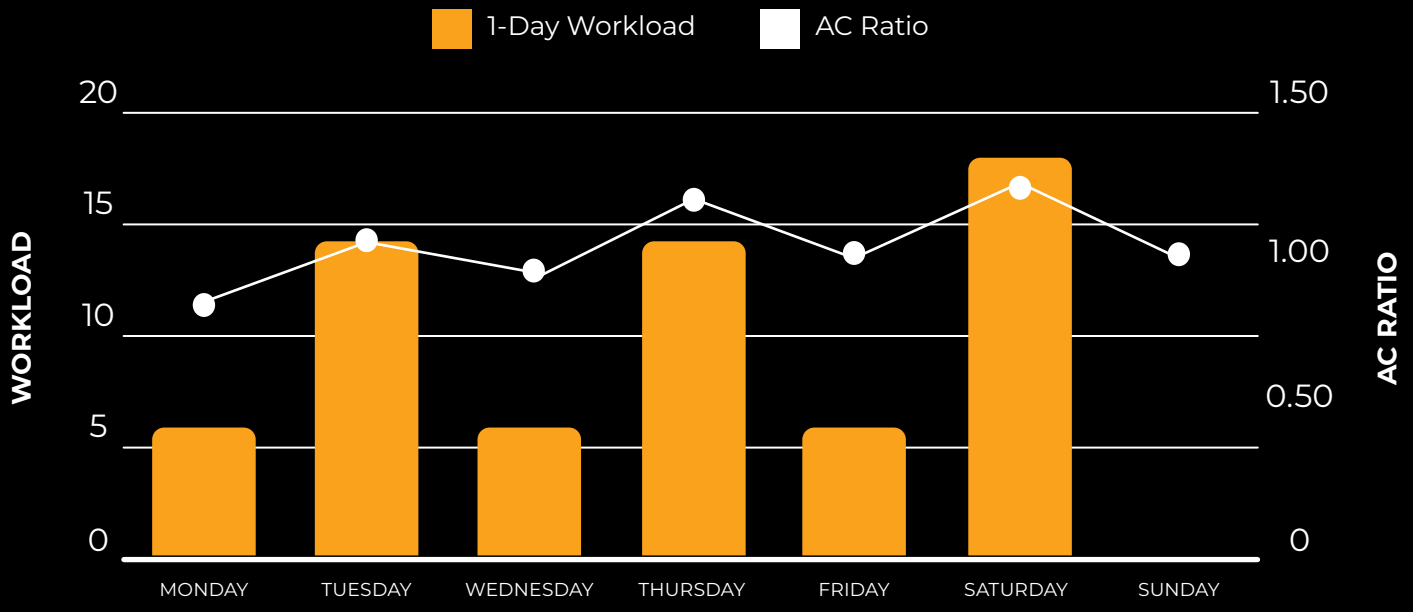
At times when the drill alone doesn't create the movements we want, we'll use additional cues for the athlete to use while doing their PlyoCare drills. As often as possible, we'll try to keep the cue external. A simple example of an external cue we use frequently is throwing the PlyoCare ball to a target eye height and arm side. This will naturally prompt the athlete to stay behind the ball rather than cutting it and can also cue the athlete's arm action in subtle ways.

SAMPLE **THROWING WEEK**

The table to the right provides an example of a typical throwing week and how we vary intensity and volume throughout.

Day of Week	Throwing Workout	Perceived Throwing Effort Level	Number of Throws
Monday	Recovery	Low - 50-60%	50
Tuesday	Hybrid B	Med - 70-80%	100
Wednesday	Recovery	Low - 50-60%	50
Thursday	Hybrid B	Med - 70-80%	100
Friday	Recovery	Low - 50-60%	50
Saturday	Velocity	High - 100%	80
Sunday	Off	-	0

WORKLOAD & ACR



READ MORE ABOUT WORKLOAD AND AC RATIO HERE

Do not perform every single throw at high intensity.

Both volume (the number of throws) and intensity (the effort of those throws) are important when considering throwing workload. To prescribe intensity, we use Rate of Perceived Effort (RPE), which is the percentage of effort listed above.

Lastly, just because a certain day has a high RPE does not mean every throw that day should be done at that intensity. For the days where intensity is higher, athletes should slowly work up that effort level.

RECOVERY DAY VARIATIONS

50% RPE, 500-600 PEAK ARM SPEED

RECOVERY

This is the lightest type of throwing day. The goal is to get the arm moving without high volume or intensity in order to prepare us for future high intensity throwing days. Plyo throws consist of reverse throws and pivot picks only. After plyos, light catch play will be plenty. No long toss. Athletes should also try to avoid lifting on these days in order to limit total stress on the body.

RECOVERY + LONG TOSS

The same idea as normal recovery days except with light long toss at the end. We are sticking to the 500-600 arm speed maximum but we are lengthening out a bit. This is a nice middle ground between a pure recovery day and a B day.

RECOVERY + SHORT BOX

Still a recovery day except after light catch play, the athlete can hop on the mound for a light bullpen with the catcher set up in front of the plate. These are frequently used in-season either for starters trying to touch the mound a second time between starts or for relievers on days they might pitch but still want to get a little work in the pen pregame.

B DAY VARIATIONS

60-70% RPE, 700-850 PEAK ARM SPEED

HYBRID B

These are medium intensity throwing days where athletes can work on making mechanical tweaks without going at high intensity. After completing warmups, reverse throws, and pivot picks, the athlete will do two or three other prescribed drills and then end with walking wind ups. After plyos, go into long toss. Long toss on Hybrid B days will consist of only extension throws. Work out to a good distance and get air under the ball. No throws should be pulled down or thrown on a line.

MOUND BLEND B

The premise is the same as a Hybrid B except with a light 15-20 pitch bullpen at the end. This is a good opportunity to throw a mix of pitches and work on pitch execution without using a high intensity day. If possible, it is recommended to use a pitch tracking technology like Trackman or PitchLogic.

A DAY VARIATIONS

80-90% RPE, 850-1000 PEAK ARM SPEED

HYBRID A

Hybrid A days are mostly the same as hybrid B days except the intent is bumped up to 80-90%. For long toss you will perform extension throws again, but you will work in 5-8 compression throws at the end. Athletes should view these days as high intent days just short of max effort.

MOUND BLEND A

This is the same as a Hybrid A except with a 20-25 pitch bull-pen at the end. If possible, it is recommended to use a pitch tracking technology like Trackman or PitchLogic and to also track command and execution via tools like the Intended Zones Tracker.

VELOCITY DAY VARIATIONS

100% RPE, NO PEAK ARM SPEED

PLYO VELO

This velocity-focused training day consists of three or four drills; the two or three you're prescribed plus walking wind ups. Set a target on the wall at eye height on your throwing arm side and try to hit that target. The athlete will make 2 throws with each ball (blue, red, yellow, gray) in each drill. Make sure to allow adequate rest time throughout the session. Plyo velo days allow us to use overload/underload training off a mound with implements that have a different tactile feel than a baseball.

WEIGHTED BALL MOUND VELO

This velocity training day is performed off the mound at max intent and uses the weighted ball series (3oz, 4oz, 6oz, 7oz). The athlete will perform 3-4 throws with each ball in a row (for example; 5oz, 5oz, 5oz, 6oz, 6oz, 6oz). The order of the baseball throws goes 5oz (regular baseball), 6oz, 7oz, back to 5oz, 4oz, 3oz. There are 2 different sets; Short form and long form. Short form only uses 5oz, 6oz, and 4oz. Long form uses all of them; 5oz, 6oz, 7oz, 4oz, 3oz. If the athlete is relatively new to WB mound velo days, use short form until they are built up enough to handle the extra load of the 7oz and 3oz. Weighted ball mound velos allow athletes to use overload/underload training off a mound throwing to a target with a baseball.

PULLDOWNS RUN'N' GUNS/ COMPRESSION THROWS

Pulldowns are max effort throws which begin with some sort of running start much like an outfielder charging towards a ground ball and firing to a base to nab a runner. They can be done with either a baseball or with the short or long spread of weighted baseballs similar to weighted ball mound velos. This drill asks the athlete to be athletic, and as a result, is great for less advanced throwers that need to get used to moving quickly and athletically.

MOUND VELO

Mound velo days are simply max effort throws off the mound with a 5oz regular baseball. Set a target middle-middle and throw it as hard as you can. Ideally, go for 3 sets with 5 throws each and take a minute or so after every 5 throws. Mound velos are the most closely related pure velo day to a bullpen in that it is done with a 5oz baseball off the mound.

PERFORMANCE DAY VARIATIONS

100% RPE, NO PEAK ARM SPEED

BULLPEN

This is a bullpen thrown using the athlete's full arsenal while working on pitch execution. Again, if possible, it is recommended to use a pitch tracking technology like Trackman or PitchLogic and to also track command and execution via tools like the Intended Zones Tracker.

PITCH DESIGN

Pitch designs are bullpens performed on pitch tracking technology with the specific purpose of evaluating and adjusting the athlete's arsenal. Using tech such as Trackman and Edgertronic cameras, the athlete is able to look at their current arsenal, examine how they can improve it, and work to find the best grips, cues, and pitch shapes to help them be successful.

LIVE ABS

Live ABs are when the athlete puts their work to the test and faces live hitters.

Note about velocity training days: There is no one kind of velocity workout that is best. The type of velocity workout that an athlete performs depends on several factors such as athlete deficiencies, preparation level, athlete preference, and time of year. Based on these same factors, it may also be optimal to not use any type of velocity days at all for a period of time. As the athlete tries to decide which type of high intensity day they want to use in their program, consider what they're adequately prepared to do and what they're trying to accomplish.

POST-THROWING RECOVERY

Our post-throw arm care routine will vary depending on the type of throwing day. For a recovery day, the post-throw routine will consist of a quick circuit of four exercises:

- Rebounders
- Band Pull-Apart Series
- Waiter Walks
- Upward Tosses

This circuit should be completed three times and should not be overly strenuous.

For high intensity throwing days, our arm care routines are far more strenuous and resemble accessory lifting. Throwing hard is a stressful exercise and requires that our physical structures have the strength necessary to withstand that stress. There are four different boxes that we try to check when it comes to our arm care on high intensity days:

- **Scap**
  These exercises incorporate long-lever movements targeting the posterior structures such as low/mid traps and anterior structures such as serratus and pecs.

- **Rotator Cuff**
  These exercises often work short levered internal and external rotation or long-levered scaption.

- **Mid Arm**
  Something that includes bicep or tricep work and should be done from a variety of handles and grips.

- **Forearm**
  We usually use something to work either flexion/extension, pronation/supination, radial deviation/ulnar deviation, or fingertip strength.

Each box is checked once in a standard arm care circuit. There's no need to hit four different types of forearm exercises each day for example.

A high quality lifting program for baseball players will likely include all of these types of exercises anyways, but in the event that one of these boxes is left unchecked in a lift, it may be worth supplementing at the end. For example, if there was nothing that isolated the rotator cuff in your lift, consider adding a banded IR/ER exercise at around 2 sets of 6-10 reps at 80% RPE.

Example:

Banded Internal Rotation
Prone Y Raise
Cable Tricep Overhead Extension
Forearm Pronation/Supination
Farmers Carry

INTRODUCTION TO STRENGTH

TRAINING FOR PITCHERS

When building physical training and weight lifting programs for pitchers, various factors such as the time of year, age, training experience, and other unique athlete characteristics and needs must be taken into account.

On the strength side, we want to focus on those individual needs and build programs suited to the athlete within the sport, not necessarily the sport itself.

This means that very few exercises in this program will look like anything a player does on the field, and instead will focus on building the physical characteristics needed to support peak performance.

For this program, we'll focus on the needs of a high school or young college baseball player. Typically, the younger an athlete is the more their focus should be on long-term development rather than immediate results in competition. In-gym at Driveline, our average college baseball player is 17 lbs heavier and 24% stronger than our average high school player (measured by the Isometric Mid-Thigh Pull). Prioritizing increasing lean-body mass and strength is an important starting point for preparing for the next level.

Along with size and maximal strength, another big gap between average high school and college athletes is their explosive strength. In-gym, our college athletes exhibit about 21% more lower-body power in our jump testing. Some common ways to improve this characteristic are performing compound lifts with a focus on speed, Olympic lift variations, loaded jumps, and plyometric training along with sprinting.

With our high-school-aged athletes, we primarily use compound lifts to build strength and encourage hypertrophy (muscle growth), and sprinting and plyometric exercises to increase power and speed. Training this way helps develop the properties that are going to translate to the next level, while also getting the body ready to perform on the field now.

When starting any training program, being able to accurately evaluate your strengths and weaknesses takes any program to the next level. This is one big advantage of going through our strength assessment and training with us in-gym or online.

AT HOME
MODIFICATIONS

We understand that not every athlete is working with the same facilities and equipment. This is where it is important to view the exercises as ways to achieve an outcome, not as absolutes. For example, the squat in lift one is to build strength in a range that will achieve some hypertrophy. If you don't have access to dumbbells, or other weights like a barbell or kettlebell, then finding a way to achieve some kind of load such as a backpack full of books might be the best option. From there, making changes to the squat to make it more challenging with the lighter load is next. Some easy ways to do this are: Longer eccentric tempos (going slower on the way down), pausing at the bottom of the rep, or moving through the concentric portion of the lift as quickly as possible. These methods are meant to be an effective "next best thing". Even so, you will still be missing key benefits if the loads aren't consistently heavy enough, so prioritize finding gym access as soon as you are able.

ON-RAMP PHASE

This phase is to help build you physically, both throwing and in the weight room, in order to prepare for a velocity phase. We need to properly on ramp by slowly working up to max effort throwing in order to make sure the body can handle the stress that comes with high effort throws.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Off	Recovery	Off	Recovery	Off	Off	Recovery
Week 2	Off	Recovery	Off	Recovery + Long Toss	Recovery	Off	Recovery
Week 3	Off	Recovery + Long Toss	Recovery	Off	Hybrid B	Recovery	Recovery
Week 4	Off	Recovery	Hybrid B	Off	Recovery	Recovery	Hybrid B
Week 5	Off	Recovery	Hybrid B	Recovery	Hybrid B	Recovery	Hybrid B
Week 6	Off	Recovery	Hybrid B	Recovery	Hybrid A	Recovery	Hybrid B
Week 7	Off	Recovery	Hybrid A	Recovery	Hybrid B	Recovery	Hybrid A
Week 8	Off	Recovery	Hybrid B	Recovery	Plyo Velo	Recovery	Hybrid B

THROWING PROGRAMS

VELOCITY PHASE

During this phase we are obviously training to throw harder. Recovery days are very important during a velo phase in order to make sure the body is recovering in between each high intent/velo day.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Off	Recovery	Hybrid B	Recovery	Hybrid B*	Recovery	VELO (other than pull-downs)
Week 2	Off	Recovery	Hybrid B	Recovery	Hybrid B*	Recovery	VELO (other than pull-downs)
Week 3	Off	Recovery	Hybrid B	Recovery	Hybrid B*	Recovery	VELO
Week 4	Off	Recovery	Hybrid B	Recovery	Hybrid B*	Recovery	VELO
Week 5	Off	Recovery	Hybrid B	Recovery	Hybrid B*	Recovery	VELO
Week 6	Off	Recovery	Hybrid B	Off	Recovery + Long Toss	Recovery	Hybrid A

*Err lower than Tuesday's Hybrid B

COMPETITION PHASE

During this phase we prepare the athlete to get back on the field for competition. At this time you can expect to utilize pitch designs, command work, and live ABs.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Off	Recovery	PD	Recovery	Recovery + Long Toss	Recovery	Bullpen
Week 2	Off	Recovery	PD	Recovery	Recovery + Long Toss	Recovery	Bullpen
Week 3	Off	Recovery	Execution Pen	Recovery	Recovery + Long Toss	Recovery	Bullpen/Live ABs
Week 4	Off	Recovery	Execution Pen	Recovery	Recovery + Long Toss	Recovery	Bullpen/Live ABs

IN-SEASON STARTER

7-DAY ROTATION

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 1
Start Day	Off	Recovery	Bullpen	Recovery	Mound Blend B	Recovery	Start Day

6-DAY ROTATION

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 1
Start Day	Off	Recovery	Bullpen	Recovery	Recovery + Short Box	Start Day

5-DAY ROTATION

Day 1	Day 2	Day 3	Day 4	Day 5	Day 1
Start Day	Off	Recovery	Bullpen	Recovery	Start Day

IN-SEASON RELIEVER

Due to the unpredictability of being a relief pitcher, it's impossible to have a set schedule as a reliever. However, there are still principles that you can follow to give yourself the best chance of staying healthy and performing at your best when your name gets called.

Just like starters, relievers should find ways to give themselves light throwing days or complete off days. The day after an outing or bullpen is an ideal time to target an off day or a recovery throwing day. If you're a two-way player, all the throwing that you do counts even if it's not "pitching." Take advantage of your opportunities to have true light throwing days where you're making minimal throws and keeping them at low intensity.

Keep the high days high and the low days low.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Gameday	Recovery	Recovery	Gameday	Off	Recovery- +Shortbox	Recovery

RECOVERY DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Light Catch	No more than 30 throws with a baseball

POST THROW WORK

Rebounders	3 sets of 10 reps with 1000g & 1500g balls
Band Pull-Apart Series	3 sets of 10 reps each direction
Waiter Walks	3 sets of 20 yards
Upward Tosses	2 sets of 10 reps with 1000g ball

RECOVERY
+ LONG TOSS DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Light catch	No more than 45 throws with a baseball

POST THROW WORK

Rebounders	3 sets of 10 reps with 1000g & 1500g balls
Band Pull-Apart Series	3 sets of 10 reps each direction
Waiter Walks	3 sets of 20 yards
Upward Tosses	2 sets of 10 reps with 1000g ball

HYBRID B DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls
Roll-In Throws	5 reps each with 450g & 225g balls
Drop Step Throws	2 throws each with 450g, 225g, 150g, & 100g balls
Walking Windup Throws	2 throws each with 450g, 225g, 150g, & 100g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Driveline Extension Long Toss	Catch play with a baseball to tolerance (NO COMPRESSION THROWS)

HYBRID A DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls
Roll-In Throws	5 reps each with 450g & 225g balls
Drop Step Throws	2 throws each with 450g, 225g, 150g, & 100g balls
Walking Windup Throws	2 throws each with 450g, 225g, 150g, & 100g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Driveline Extension Long Toss	Catch play with a baseball to tolerance
Compression Throws	5-8 throws @ 90% RPE

PLYO VELO DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g and 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g and 450g balls
Plyocare Throws of Choice to prepare for max effort work	10-15 reps with balls of choice
Roll-In Throws (max effort)	5 reps each with 450g & 225g balls
Drop Step Throws (max effort)	2 throws each with 450g, 225g, 150g, & 100g balls
Walking Windup Throws (max effort)	2 throws each with 450g, 225g, 150g, & 100g balls

PULLDOWNS/MOUND VELO/ WEIGHTED BALL MOUND VELO DAY

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls
Roll-In Throws	5 reps each with 450g & 225g balls
Drop Step Throws	2 throws each with 450g, 225g, 150g, & 100g balls
Walking Windup Throws	2 throws each with 450g, 225g, 150g, & 100g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Driveline Extension Long Toss	Use extension toss to get warm for Weighted Ball Mound Velo. Should feel ready to throw at max effort before going into tracked velocity throws.
Compression Throws	3-5 throws @ 90% RPE

VELOCITY THROWING

Choose ***one*** of the following:

Pulldowns (short spread*)	4 throws with each ball @ 100% RPE in this order: 5oz, 6oz, 5oz, 4oz
Weighted Ball Mound Velo (short spread*)	4 throws with each ball @ 100% RPE in this order: 5oz, 6oz, 5oz, 4oz
Mound Velocity	3 sets of 5 reps with 5oz ball @ 100% RPE

* For full spread add 3oz and 7oz balls;
5oz, 6oz, 7oz, 5oz, 4oz, 3oz

PITCH DESIGN/
EXECUTION PEN/BULLPEN

WARM-UP

Foam Roll/Lacrosse Ball	10 seconds per pass, full body
Dynamic Warm-Up	Increase body temperature & elevate heart rate

PRE-THROWING PREP

Jaeger Band Series	10 reps per exercise
Wrist Weight Series	10 reps per exercise
Shoulder Tube Series	10 seconds per exercise

PLYOCARE WORK

Reverse Throws	10 reps each with 1500g & 1000g balls
Pivot Pickoff Throws	10 reps each with 1000g & 450g balls
Roll-In Throws	5 reps each with 450g & 225g balls
Drop Step Throws	2 throws each with 450g, 225g, 150g, & 100g balls
Walking Windup Throws	2 throws each with 450g, 225g, 150g, & 100g balls

WEIGHTED BALL WORK/LONG TOSS

Leather Weighted Ball Catch Play	5 throws 11oz, 5 throws 9oz, 5 throws 7 oz
Driveline Extension Long Toss	Catch play with a baseball to tolerance
Compression Throws	3-5 throws @ 90% RPE

MOUND WORK

Pitch Design/Execution Pen/ Bullpen	20-40 pitches off the mound, ~90% RPE

The athlete should have very specific goals in mind for these days (improve slider shape, decrease average fastball miss distance, get comfortable with new pitch sequences, etc.) and ways to track performance.

DAY 1

Set	Name	Sets	Reps	Rest	Load	Notes
A1	Goblet Squat*	3	8	2min		Weeks 1/2 3x8, weeks 3-5 4x6, week 6 2x6
A2	Abductor Side Plank	2	30sec			
B1	Half Kneeling DB Press	3	5/side	1min		
B2	Step Ups	3	8	1min		
C1	DB RDL	3	8	1min		
C2	Half Kneeling 1 arm Cable Row	3	8e	1min		
D1	Banded Deadbugs	3	10/side			
D2	Suitcase Carry	3	20 Yards/ side			

*Regression for A1 - BW Squat, Progressions - Front Squat, Back Squat

DAY 2

Set	Name	Sets	Reps	Rest	Load	Notes
A1	DB Incline Bench	3	8	2min		Weeks 1/2 3x8, weeks 3-5 4x6, week 6 2x6
A2	DB Split Squat	3	8/side	1min		
B1	Chest Supported Row	3	8	1min		
B2	Pallof Press	3	30s/side	1min		
C1	Incline Bench Y,T,W	3	6each	1min		
C2	Copenhagan Side Planks	3	30s/side			
D1	Deadhang	3	max			

*Regression for A1 - Incline Push Ups, Progression BB Incline

DAY 3

Set	Name	Sets	Reps	Rest	Load	Notes
A1	Trapbar Deadlift	3	5	2min	2RIR	Weeks 1/2 3x5, weeks 3-5 4x4
B1	Neutral Grip Chin Ups	3	6	2min		
B2	Goblet Lateral Lunge	3	8/side			
C1	Yoga Push Ups	3	10	1min		
C2	Back Extension	3	10	1min		
D1	TRX Row	3	8/side			
D2	Bear Crawl (10 Yards - Forward & Backwards	3	10yards			

*Regression for A1 - KB Deadlift

EXECUTION GUIDELINES
USING RADAR GUN

DRIVELINE BASEBALL

Peak Velo	Recovery	B Day	A Day	Bullpen
70	53	60	67	70
73	55	63	69	73
75	56	65	71	75
77	58	66	73	77
80	60	69	76	80
83	62	71	79	83
85	64	73	81	85
87	65	75	83	87
90	68	77	86	90
93	70	80	88	93
95	71	82	90	95
97	73	83	92	97
100	75	86	95	100

EXECUTION GUIDELINES

USING PULSE

PULSE THROW

Peak Arm Speed	Recovery	B Day	A Day	Bullpen
850	553	697	808	850
900	585	738	855	900
950	618	779	903	950
1000	650	820	950	1000
1050	683	861	998	1050
1100	715	902	1045	1100
1150	748	934	1093	1150
1200	780	984	1140	1200
1250	813	1025	1188	1250
1300	845	1066	1235	1300