YOUTH AGES 11u - 13u:

<u>60</u> DAY OFFSEASON VELOCITY AND PITCH-ING ENHANCEMENT PROGRAM

The following 60DAY VeloPRO pitch-ING and velocity program is designed **SPECIFICALLY FOR USAGE WITH THE VL HARNESS**, and is intended for younger developing arms between the ages of 11-13U. There are big differences when training younger bodies (compared to mature pitchers), all of which need to be adhered to. This is due to physiological differences that younger bodies are still maturing through.

USAGE WITHOUT THE VL HARNESS IS NOT RECOMMENDED, AS (1) SENSORY FEEDBACK, (2) MOVEMENT DEVELOPMENT, AND (3) INSUFFICIENT SUPPORT OF THE THROWING ARM AND SHOULDER WOULD NOT BE ASCERTAINED FOR THE WORK LOADS, TRAINING GOALS, AND/OR OVERSIGHT REQUIREMENTS SET FORTH BY THIS PROGRAM.

DO NOT UTILIZE ANY WEIGHTED IMPLEMENT WITH THIS PROGRAM. VELOPRO BASEBALL AND BIG LEAGUE EDGE PERFORMANCE BASEBALL HAVE CONDUCTED EXTENSIVE INDEPENDANT RESEARCH AT THE UNIVERSITY, LAB, AND ON FIELD LEVELS (NATIONALLY) UPON WEIGHTED IMPLEMENT TRAINING FOR YOUNGER ATHLETES. DATA SUGGESTS THAT SUCH USAGE PRESENTS AN EXTREME NEGATIVE PHYSIOLOGICAL HEALTH EFFECT UPON GROWING BODIES - AS TENDON, LIGAMENT, AND JOINT SUPPORT IS NOT YET ADVANCED ENOUGH TO SUPPORT STRESS LOADS PLACED UPON OUTERMOST EXTREMITIES. THIS INCLUDES WEIGHTED BASEBALLS.

Develops HEALTHY velocity that is both supported and competes for the win - rather than just a velocity or throwing program. Over 5 years of analytical pitching data and research (from the University, lab, and on field perspectives) support this program and its usage. Data is INDEPENDANT of VeloPRO Baseball, which is highly important to the accountability and integrity of this program. USAGE WITH GAME COMPETITION IS ONLY ADVISED IF PERFORMANCE STRESS AND WORK LOADS ARE MINIMIZED.

Recommended for:

1. Ages 11-13U pitchers whom do NOT have an entire off season of noncompetition that provides a full 90days. This is a shortened velocity/pitch-ing development program that gets pitchers ready for an upcoming travel baseball season. Normally reserved for the "warm weather" geographically located pitcher whom plays more games than a "cold weather" arm whose season is shortened due to inclimate weather patterns. ENSURE YOU HAVE TAKEN A FULL 30DAYS OFF FROM THROWING OR COMPETITION BEFORE STARTING THIS PROGRAM. Start program 60 days before season start. Not recommended for post-surgery or "recovering from injury" pitchers. Younger bodies recover quickly, but lack functional strength to support this program's requirements and workloads - so ensure your recovery rates optimize workloads. Do NOT start this program is you are ages 10 and under - EVEN IF YOU ARE PHYSIOLOGICALLY ADVANCED.

The different aspects of the program are described below - with the actual daily throwing, lifting, running, and recovery routines listed under "Week 1" to "Week 8". Read over all the information **BEFORE** you start.

Use your VL Harness (as directed by the program) with all aspects of throwing. It provides the necessary sensory feedback and peaked athletic movement required to develop a (1) proper delivery, (2) increased velocity, (3) improved pitch plane, and (5) enhanced fastball movement and off speed break, and velocity. **To better understand how to use your VL Harness, refer to our <u>Tutorials page</u>.**

If you wish to have oversight or additional training, find a certified VeloPRO Baseball instructor near you or email Info@veloprobaseballnj.com

RECOVERY AND WORK LOAD RATIOS:

The relationship between your work load and recovery rates should dictate how you utilize this program. Too much soreness/tightness the day after means your arm is not ready for the work load requirement. Do <u>NOT</u> push your arm to the point it is not recovering in time for your next throwing session. Follow these steps (IN ORDER) to procure recovery/work load ratio(s):

- 1. If you are experiencing too much "day after" soreness/tightness, back off on rep amounts not frequency.
- 2. If you still are not recovering (after completing Step 1), back off one drill per training section of each day's throwing regimen. Repeat until proper recovery levels are attained and work from there.
- 3. No matter how your arm recovers, if you feel pain stop and re-evaluate frequency, fitness levels, and recovery times.
- 4. When evaluating, know the differences between (1) fatigue, (2) soreness, (3) tightness, (4) achiness, and (5) pain. Some soreness and fatigue is good, but too much will lead into post throwing achiness that does not subside (tendonitis). It can also lead into "day after" tightness that does not work itself out quick enough. Any type of pain is not good and you should stop immediately.
- 5. "PAIN" is a sharp painful sensation when you perform a certain movement. "FATIGUE" is your arm or body feels tired. "SORENESS" is similar to "TIGHTNESS", but the later does not loosen itself out or subside quickly. "ACHINESS" is a throbbing sensation indicator the presence of tendonitis or start of such. Remember that your arm is a muscle and needs to be used, but <u>NOT</u> overused.
- 6. Proper monitoring of recovery rates will require you to stop throwing once you feel like your arm is used. Stop after you feel this "sensation" as it is the start of fatigue.
- Do **NOT** push past this, or your next day's throwing regimen will suffer.
- 7. Build and plateau your throwing frequency and reps to maximize recovery rates. It will take about a month to fully understand how your arm and body are responding to the below.

8. Adhere to all rest requirement(s) between drills, exercises, or sets - even if you feel you are recovered.

This is an off season pitching and velocity building program, and does not take into account performance workloads. If you are currently in a season, do NOT use this program - as recovery rates will not be ascertained.

USAGE AND PROGRAM KEY:

Always use your Velocity LOAD Harness with every aspect of the program (except strength and running). There are two ways to use your VL Harness (denoted in the program key). Back hip (BH) contours your back hip to train linear drive, ground reaction force (GRF), and sync of front foot strike. Front hip (FH) contours your front hip to train rotational torque and sync of lower-to-upper half kinetic reaction force. Refer to our <u>Tutorials</u> <u>videos</u> for more detailed usage.

There are 3 different training components PER DAY to the program - (1) Throwing, (2) Running/recovery, and (3) Strength. Ensure you have the right VL Harness placement PER DRILL (as denoted per drill below).

For drills within each training component:

1. Each drill in the program has a number #1 - #6 that corresponds with the number of a drill in the videos shown at the top of this website page. For example, if drill #1 is listed in your day's throwing routine, you are to do the Leg kick posture drill, which is described in video #1 at the top of this website page.

Training components of the throwing program and what they mean:

- 1. **Delivery training** develops pitching delivery efficiency, mechanics, movements, and tempos.
- 2. **Velocity/long toss training** increases arm speed, whip, endurance, velocity, plane, and lower half drive.
- 3. **Pitching training** designed to increase execution ratios, pitchability, and command.
- 4. Pre-throwing training Gets body and arm ready for the day's work requirements.
- 4. Running and recovery training increases cardio fitness, endurance, and recovery.
- 6. **Strength training** develops pitching specific strength in a kinetic chain reaction.

Program key:

- 1. BH VL Harness is placed on back hip (application described above).
- 2. **FH** VL Harness is placed on front hip (application described above).
- 3. **PEL** Perceived effort level of throwing or running.
- 100% is max intensity throwing (on a line) or max intensity sprinting.
- 90% is controlled high intensity throwing or sprinting.
- 80% is slight arc or medium intensity sprinting.
- 50% is active warm up or medium rate jogging.

60DAY PITCHING AND VELOCITY PROGRAM*

The following program includes every required aspect of pitching development. It is a general guideline that gives your pitching career a fully comprehensive approach to winning on the mound. This is an off season workout plan that does not take into account performance requirements and/or workloads. Constantly monitoring recovery is the key to ensuring success. If you have questions, email Info@veloprobaseballnj.com.

-PRE-THROWING TRAINING COMPONENT DESCRIPTION-

Before every throw day, you will conduct Steps 1 - 3 (below) **BEFORE** you start the day's throwing regimen. Do not skip, as this is a portion of your daily routine that gets your body and arm kinetically synced with muscular response.

- 1. **Active body warm up** Conduct an active body warm up. 5min of agility and flex warm up, 5min of static stretching of both upper and lower half, and 5min of band work for your shoulder and scap load. Agility and flex warm up exercises can include high knees, bounders, jogging, side shuffling, etc. Band work needs to include rotator cuff protraction, retraction, and scap load drills. Ensure you activate internal and external ROMs for all cuff muscles IN ALL BODY POSITIONS. For band work, find a program that works for you. There are many readily available on the internet that will suffice.
- 2. **Interval KCR warm up** It is important to get your entire body working as one unit to sync your kinetic chain reactors (KCR) once it is stretched and you have blood flow. To do this, do about 5-10 sprints at 90' length. Conduct them at 50%, 75%, and 100% PEL.
- 3. **Active arm warm up** Throw at around 60 80 feet at 50% PEL to warm your arm up **BEFORE** you start with any daily throwing routines that will include Delivery, Velocity, and/or Pitching training component(s). See below for specific routines.

-RUNNING AND RECOVERY TRAINING COMPONENT DESCRIPTION-

Immediately after you finish your throwing, do your cardio cool down. Each day will provide a few cardio conditioning options (choose one only). If you are pitching in a game - **THE DAY BEFORE**, you should do ten 150' long sprints at 100% PEL after your throwing routine. Disregard any required daily program running. Then start on Day 1 (the day after you pitch in a game).

There will be some adaptations to this running program - based upon game frequency. Just make sure you are recovering enough to be "fresh" for your game appearances or throwing regimens. Conduct all running $\overline{\textbf{AFTER}}$ your day's throwing. Do NOT do it beforehand. Additionally, all below running routines are to be conducted on the warning track of a 60/90 regulation sized baseball field. If you do not have access to a field, use the last option within each day's running routine.

For cuff band work, there are many popular programs available. Jaeger Sports has a great sequence and we highly recommend its usage. Most implement the same exercises and application components. Find one that suits your needs.

POST COOL DOWN AFTER A GAME APPEARANCE:

15min on a treadmill OR general running at 50% PEL.

- 1. Treadmill should be at a 7 speed with incline of about 3.
- 2. General running is a jog at 50% PEL to flush your system.
- 3. Finish out with cuff band work.

DISTANCE FLUSH:

25min of constant running at 50% PEL.

1. Constant running provides no rest and is a flush with limited cardio intensity.

SPRINT INTERVALS:

10x bow and arrows (60sec rest between reps) OR 10 JSWs (no rest).

- 1. Bow and arrows are sprints at 100% PEL to centerfield. Jog at 80% PEL to opposite foul line.
- 2. JSWs (jog/sprint/walk) is jog at 80% PEL to first gap, sprint at 100% PEL to opposite gap. Walk to foul line.
- 3.10x 30/30/30s. Sprint for 30sec at 100% PEL. Jog for 30sec at 80% PEL. Walk for 30sec. No rest between.

LIGHT INTERVALS:

10x Poles OR Center and Gaps at 75% PEL.

- 1. Poles are a medium jog from foul line to foul line on the warning track. Rest 30sec between reps.
- 2. Center and Gaps are a medium sprint to centerfield wall, jog to gap, walk to foul line. No rest between reps.
- 3. 10x 45sec medium jogs with 30sec rest between reps.

MEDIUM DISTANCE FLUSH:

15min flush OR jog at 50% PEL AND 10min of jump rope.

- 1. Jog for 15min anywhere to get a flush.
- 2. In addition to jog, do 10min of jump rope with a 90sec active / 30sec recovery ratio.

AGILITY LADDERS:

20min of any type of speed ladder training OR Sprint work at 75% PEL.

- 1. Speed ladder training can utilize any popularized agility exercise. 90sec at 75% PEL with 30sec rest. 20min regimen includes exercises AND rest.
- 2. Sprint work is 75yd sprints at 75% PEL. Rest for 30sec in between sprints.

-STRENGTH TRAINING COMPONENT DESCRIPTION-

Ensure you have oversight for this portion of the program. **FORM IS EVERYTHING**. Improper form can lead to injury and a lack of proper strength development. If you lack experience in strength training, working with a certified trainer is highly recommended.

Always conduct this portion of the program <u>AFTER</u> you finish throwing. If you must lift before throwing, allow for 60min recovery time before commencing any type of throwing. If you have a game, do **NOT** strength train that day. If you feel too much soreness or tightness, cut back on your day's strength training to ensure proper recovery. You can upload any of the following regimens with more reps, higher intensity, more weight, incline or decline, and/or weighted vests, medicine balls, or physioballs. Younger athletes should not utilize any weighted apparel or weights.

There is NO rest in between reps. Take ONLY 15sec between reps or sets to get set up and ready for your next exercise. This type of high intensity training increases endurance, recovery rates, and cardio fitness levels. This is a push/pull routine developed by top baseball strength trainers whom have decades of expertise at the MLB levels. A push/pull strength routine trains the accelerator (while indirectly training decelerators) - and vice versa. This builds your body as one moving unit that connects your entire KCR. Such routines are NOT readily available to the general public and require proper form, recovery levels, and intensity levels to ascertain.

CIRCUIT #1: LOWER HALF FUNCTIONAL STRENGTH CIRCUIT

Use body as weight ONLY. Upload with medicine ball if desired. 35sec per exercise. No rest between exercises.

Repeat Steps 1-9 three times. After you finish this circuit, do your cuff strengthening.

- 1. **Squats**. 20rep minimum.
- 2. Lower ab exercise of choice. 20rep minimum.
- 3. Forward alternating lunge. 20rep minimum.
- 4. **Regular ab exercise of choice.** 20rep minimum.
- 5. Backward alternating lunge. 20rep minimum.
- 6. Twisting ab exercise of choice. 20rep minimum.
- 7. Alternating box step ups. 20rep minimum.
- 8. Side lunges. 20rep minimum.
- 9. **Lower ab leg lifting exercise of choice**. 20rep minimum.

CIRCUIT #2 LOWER HALF EXPLOSIVE STRENGTH CIRCUIT

8reps per exercise. One set equals 8 total exercises. After you finish this circuit. do your cuff strengthening.

- 1. **Front chops:** Above head to between legs. As you chop move into a body squatting position.
- 2. **Diagonal left chops:** Above head to left hip. As you chop, move into a body squatting position.
- 3. **Diagonal right chops:** Above head to right hip. As you chop, move into a body squatting position.
- 4. **Left lunge chops:** Start in leg kick position w/ med ball overhead. Stride out with left leg and chop med ball diagonally. Spring back up and repeat.
- 5. **Right lunge chops:** Start in leg kick position w/ med ball overhead. Stride out with right leg and chop med ball diagonally. Spring back up and repeat.
- 6. **Right side diagonal wall throws:** Start in squat position about 3' from wall with med ball at right hip. Throw ball into wall. Catch bounce and absorb energy with a twisting action of hips. Repeat.
- 7. **Left side diagonal wall throws:** Start in squat position about 3' from wall with med ball at left hip. Throw ball into wall. Catch bounce and absorb energy with a twisting action of hips. Repeat.
- 8. **Med ball slams:** Start with med ball overhead. Slam ball into ground. Catch the bounce up and repeat.

CIRCUIT #3: UPPER HALF STABILIZING LOAD CIRCUIT

30sec per exercise. One set equals 5 total exercises. After you finish this circuit, do your cuff strengthening.

- 1. **Wall bounces:** Stand 3' from wall w/ med ball overhead. Feet are shoulder width apart. Bounce ball against wall on fingertips. Limit forearm absorption rate. Works finger and wrist strength.
- 2. **Chest passes:** Stand 3' from wall w/ med ball at chest in a squat position. Bounce ball against wall and absorb with forearms. Elbows should stay stationary. Works finger and tricep strength.
- 3. **Overhead throws**: Stand 3' from wall w/ med ball overhead in stride position. Bounce ball against wall and absorb with entire arm moving shoulders and scapula with a slight bend in elbows. Works shoulder and scapula load.
- 4. **Left side strider throws:** Stand 5' from wall w/ med ball overhead in leg kick position. Stride out like you would be pitching and throw ball against wall. No bounce absorption. Pick ball up and repeat.
- 5. **Right side strider throws:** Stand 5' from wall w/ med ball overhead in leg kick position. Stride out like you would be pitching and throw ball against wall. No bounce absorption. Pick ball up and repeat.

<u>CIRCUIT #4: UPPER HALF ACCEL/DECEL PERFORMANCE STRENGTH</u> CIRCUIT

10reps per exercise. Do Sets 1-4 one time only. After you finish this circuit, do your cuff strengthening.

In between each exercise, do an ab exercise of choice. Train all quadrants of your ab muscle group by using twisting, lower, middle, and upper ab strengthening exercises. Concentrate mainly upon twisting and lower ab quadrants. Can upload with any load application (weights, bands, plates, etc.). Younger athletes should not utilize any upload application(s) except for plane change, medicine ball, resistance band(s), or body weight.

SET 1:

- 1. **Flat chest exercise of choice**. Push up or dumbbell presses only. No machine.
- 2. **Overhead back pulldown exercise of choice**. Machine (older) or resistance bands (younger).
- 3. **Dumbbell curl bicep exercise of choice**. Dumbbell (older) or resistance bands (younger). No machine.
- 4. **Flat pulldown bar tricep exercise of choice**. Machine (older) or resistance bands (younger).
- 5. **Side lift shoulder exercise of choice**. Do not lift above shoulder level. Dumbbells (older) or resistance bands or medicine balls (younger).
- 6. **60sec of skaters or slide board**. Rest 90sec for recovery before starting Set #2.

SET 2:

- 1. **Incline chest exercise of choice.** Push up or dumbbell presses only. No machine.
- 2. **Sitting pull/row back exercise of choice**. Machine (older) or resistance bands (younger).
- 3. **Hammer curl exercise of choice**. Dumbbell (older) or resistance bands (younger).
- 4. **Rope pulldown tricep exercise of choice**. Machine (older) or resistance bands (younger).
- 5. **Front lift shoulder exercise of choice**. Do not lift above shoulder level. Dumbbells (older) or resistance bands or medicine balls (younger).
- 6. **90sec of jump rope**. Rest 90sec for recovery before starting Set #3.

SET 3:

- 1. **Fly chest exercise of choice**. Machine (older) or resistance bands (younger).
- 2. **One handed bench rowing back exercise of choice**. Do not go deep on your fly ROM. On flat bench (older) or resistance bands bend over (younger).
- 3. **Preacher curl exercise of choice**. Barbell (older) or resistance bands (younger).
- 4. **Overhead tricep press exercise of choice**. Machine (older) or resistance bands (younger).
- 5. **Trap exercise of choice**. Do not lift above shoulder level. Machine (older) or resistance bands (younger).
- 6. **60sec of high knees, wall climbers, or burpees (choose one)**. Rest 90sec before starting Set #4.

SET 4:

1. **Retraction wrist exercise of choice**. Resistance bands only for both older and younger.

- 2. **Static plank exercise of choice**. Plank exercises require you to maintain a static planking position.
- 3. **Protraction wrist exercise of choice.** Rice bucket or rope twist for older and younger.
- 4. Plank with scap load/unload exercise of choice.
- 5. **Twisting wrist exercise of choice**. Resistance bands only for both older and younger.
- 6. **90sec of jump rope.**

CIRCUIT #5: LOWER HALF ACCEL/DECEL PERFORMANCE STRENGTH CIRCUIT

10reps per exercise. Repeat Sets 1-4 two times. After you finish this circuit, do your cuff strengthening.

In between each exercise, do an ab exercise of choice. Train all quadrants of your ab muscle group by using twisting, lower, middle, and upper ab strengthening exercises. Concentrate mainly upon twisting and lower ab quadrants. Can upload below exercises with any load application (weights, bands, resistance, etc). Younger athletes should not utilize any upload application(s) except body weight, medicine balls, resistance band(s), plane change, or plyoboxes.

SET #1:

- 1. Body width foot placement squat exercise of choice (regular). No machine.
- 2. **Forward lunge with overhead medicine ball chop**. Arch back at bottom of lunge. Alternate feet.
- 3. Jump squat with body weight only.
- 4. **Backward lunge with reverse overhead medicine ball chop**. Arch back at bottom of lunge. Atlernate feet.
- 5. **Scissors jumping lunges with medicine ball overhead**. No chopping action (static position). Rest 2min before starting Set #2.

SET #2:

- 1. **Hack squat** on machine.
- 2. Forward lunge with a twist. Arch back at bottom of lunge. Alternate feet.
- 3. **Split squat**. No machine. Change foot positioning after 5 reps.
- 4. Backward lunge with a twist. Arch back at bottom of lunge. Alternate feet.
- 5. **Skaters for 60sec**. Rest 2min before starting Set #3.

SET #3:

- 1. **Body squats for 30sec.** Do them as fast as you can. 15sec recovery.
- 2. **Jump squats for 30sec.** Do them as fast as you can. 15sec recovery.
- 3. **Burpees with a jump and high knees at top of jump for 30sec**. Do them as fast as you can. 15sec recovery.
- 4. **Rock climbers for 30sec**. Do them as fast as you can. 15sec recovery.
- 5. **Forward to backward lunge on right leg**. 20sec. Do them as fast as you can. 15sec recovery.

- 6. **Forward to backward lunge on left leg**. 20sec. Do them as fast as you can. 15sec recovery.
- 7. **One legged step ups for 20sec (left leg only)**. Do them as fast as you can. 15sec recovery.
- 8. **One legged step ups for 20sec (right leg only).** Do them as fast as you can. 15sec recovery.

-DAILY THROWING, RUNNING, AND STRENGTH ROUTINE-

There are three types of throwing components (**Delivery**, **Velocity**, **and Pitching** - described above) you will utilize in this throwing program that develop (1) pitching abilities that compete for the win AND (2) velocity that enhances your ability to win. Each type of throwing component is denoted within the program's daily throwing regimens.

Ensure your recovery is peaked. If you cannot finish out the day's throwing requirements, cut back and re-evaluate to ensure proper recovery. "Recovery" is defined as your arm feeling fresh the next day. Some days, you will feel a bit tired or sore. Cut back on that day's throwing to ensure your following day's throwing is not effected. Additionally, to aid in recovery - ice or do therapy only <u>AFTER</u> you have finished out your running and lifting for that day. Monitoring your recovery rates is how you will discover at what levels your arm can be utilized.

Again, understand that this is an off season throwing plan, and is not taking into account performance work loads. Additionally, this is **NOT** a post surgery throwing program. For such, email Info@veloprobaseballnj.com and we can get you a program to use.

- 1. IF YOU ARE INDOORS AND DO NOT HAVE ACCESS TO THE DISTANCE RATINGS (FOR THROWS), SIMULATE BY THROWING HIGHER INTO NET AT A SPECIFIC TARGET. DO NOT JUST THROW BASEBALL INTO NET, BUT PICK OUT A SPECIFIC SPOT. ADDITIONALLY, RUNAND-GUNS, PULLDOWNS, OR BALLISTIC STYLE THROWING IS NOT A TYPE OF THROWING THIS PROGRAM OR VELOPRO BASEBALL SUPPORTS WITH OUR HARNESS. ALL SUCH TYPES OF THROWING HAVE BEEN PROVEN (THROUGH OUR DATA AND INDEPENDANT RESEARCH STUDIES WE HAVE CONDUCTED) TO HAVE A NEGATIVE EFFECT UPON COMMAND AND PLANE FOR YOUNGER OR DEVELOPING ARMS. MILB AND MLB ARMS WERE NOT RESEARCHED.
- 2. WHETHER INDOORS OR OUTDOORS, DO NOT ALLOW YOUR THROWS TO REACH ABOVE 15'. IF YOU CANNOT MAKE THE DISTANCES (IN THE AIR), LET THE BASEBALL BOUNCE TO YOUR TARGET. ONCE YOUR LOWER HALF INCREASES ITS LINEAR DRIVE FORCE, GRF, AND LINEAR-TO-ROTATIONAL SYNC (THROUGH THE VL HARNESS), YOUR ARM SPEED WILL INCREASE EFFECTIVELY CARRYING THE BASEBALL FURTHER AND ON TARGET. THIS IS THE ESSENCE OF HEALTHY VELOCITY THAT WINS.

3. THE RECOVERY TIMES ARE IMPORTANT, AS THEY ARE DESIGNED TO GET YOUR ARM IN SHAPE QUICKER AND ALIGN WITH QUALITY INNINGS WORK LOADS. ALTHOUGH YOU MAY FEEL READY TO PROCEED ONTO THE NEXT EXERCISE, DRILL, OR SET, ADHERE TO THE ENTIRE RECOVERY LENGTH BEFORE MOVING ON.

Time limits denoted for throwing durations.

(BH) or (FH) denotes back hip or front hip placement of VL Harness. Unhooked means to unhook bungees.

-WEEK 1 DAILY ROUTINE-

DELIVERY COMPONENT (BH). THROW 2 INSIDE / 2 OUTSIDE FB SEQUENCE FOR ALL DRILLS TO CATCHER ON FLAT:

MON, WED, FRI (60sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 1-3 @ 50' (described in videos). 15x per drill at 80% PEL.

LONG TOSS COMPONENT (BH) OPPOSITE ARM SIDE AT ALL TIMES:

MON, WED, FRI (60sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

2min at 80'. 80% PEL.

2min at 90' w/ crow hop. 80% PEL.

2min at 80', 80% PEL.

PITCHING/VELOCITY COMPONENT:

N/A

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Mon - Distance.

Wed - Medium Distance.

Fri - Agility Ladders.

Sat - Sprint Intervals.

STRENGTH COMPONENT:

Description of strength circuits listed above.

Mon - Circuit #4

Tues - Circuit #5

Wed - Circuit #2

Fri - Circuit #1

Sat - Circuit #3

-WEEK 2 DAILY ROUTINE-

DELIVERY COMPONENT (BH). SAME SEQUENCING:

MON, WED, FRI (60sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 1-3 @ 60' (described in videos). 15x per drill at 80% PEL.

LONG TOSS COMPONENT (BH). THROW OPPOSITE ARM SIDE AT ALL TIMES:

MON, WED, FRI (60sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

2min at 80'. 80% PEL.

2min at 90'. 80% PEL.

2min at 110' w/ crow hop. 80% PEL.

1min at 90' w/ crow hop. 80% PEL. Unhooked.

1min at 80'. 80% PEL. Unhooked.

PITCHING/VELOCITY COMPONENT:

N/A

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Mon - Light Interval

Tues - Distance

Wed - Sprint Intervals

Thurs - Medium Distance

Fri - Light Interval

Sat - Agility Ladders

STRENGTH COMPONENT:

Description of strength circuits listed above.

Same as Week 1.

-WEEK 3 DAILY ROUTINE-

DELIVERY COMPONENT (BH). SAME SEQUENCING:

MON, TUES, THURS, FRI (60sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 4-6 @ 60' (described in videos). 10x per drill at 80% PEL.

LONG TOSS COMPONENT (BH). THROW OPPOSITE ARM SIDE AT ALL TIMES:

MON, TUES, THURS, FRI (90sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

2min at 90'. 80% PEL.

2min at 100' w/ crow hop. 90% PEL.

2min at 125' w/ crow hop. 90% PEL.

2min at 100' w/ crow hop. 90% PEL. Unhooked.

1min at 80'. 80% PEL. Unhooked.

PITCHING/VELOCITY COMPONENT:

N/A

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Mon - Light Interval

Tues - Medium Distance

Wed - Distance

Thurs - Sprint Intervals

Fri - Sprint Intervals

Sat - Distance

STRENGTH COMPONENT:

Description of strength circuits listed above.

Mon - Circuit #5

Tues - Circuit #4

Thurs - Circuit #1

Fri - Circuit #3

Sat - Circuit #2

-WEEK 4 DAILY ROUTINE-

DELIVERY COMPONENT (FH). SAME SEQUENCING:

MON, TUES, THURS, FRI, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 4-6 @ 60' (described in videos). 10x per drill at 80% PEL.

LONG TOSS COMPONENT (FH). THROW OPPOSITE ARM SIDE AT ALL TIMES:

MON, THURS (90sec rest between distance ratings):

ARM SPEED AND SCAP LOAD/UNLOAD TRAINING

2min at 100' w/ crow hop. 80% PEL.

3min at 125' w/ crow hop. 90% PEL.

2min at 150' w/ crow hop. 90% PEL.

2min at 125' w/ crow hop. 90% PEL. Unhooked.

1min at 100' w/ crow hop. 90% PEL. Unhooked.

PITCHING/VELOCITY COMPONENT (FH). ALTERNATE INSIDE/OUTSIDE:

TUES, FRI (2min rest between distance ratings):

VELOCITY LOAD AND PITCHING DEVELOPMENT

10 throws w/ crow hop @ 100'. 90% PEL.

10 throws w/ crow hop @ 125'. 90% PEL. Last 5 throws at 100% PEL.

10 throws w/ crow hop @ 100'. 90% PEL. Last 5 throws at 100% PEL. All throws are unhooked.

15 pitch flat ground bullpen at 90% PEL. Last 5 pitches are not hooked in.

SUN (60sec rest between distance ratings):

VELOCITY FLUSH DAY

60sec at 90' w/ crow hop. 80% PEL.

90sec at 100' w/ crow hop. 90% PEL.

90sec at 100' w/ crow hop. 90% PEL. Unhooked

60sec at 90' w/ crow hop. 80% PEL.

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Mon - Distance

Tues - Sprint Interval

Thurs - Medium Distance

Fri - Light Intervals

Sun - Agility Ladders

STRENGTH COMPONENT:

Description of strength circuits listed above.

Mon - Circuit #5

Tues - Circuit #4

Thurs - Circuit #5

-WEEK 5 DAILY ROUTINE-

DELIVERY COMPONENT (FH). SAME SEQUENCING:

TUES, WED, FRI, SAT, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 1-3 @ 60' (described in videos). 8x per drill at 80% PEL.

LONG TOSS COMPONENT (BH). THROW TO OPPOSITE ARM SIDE UNLESS DENOTED: TUES, FRI (90sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

90sec at 100' w/ crow hop. 80% PEL.

90sec at 135' w/ crow hop. 90% PEL.

2min at 90' w/ crow hop. 100% PEL. BH for 1min. Unhooked for 1min.

90sec at 90' w/ crow hop working 2CH / 1FB. 80% PEL. Unhooked.

8 pitch flat bullpen. All FBs. 90% PEL. (BH)

12 pitch bullpen off mound. All FBs. 90% PEL. (BH). Last 4 pitches are unhooked.

PITCHING/VELOCITY COMPONENT (FH). ALTERNATE INSIDE/OUTSIDE:

WED, SAT (2min rest between distance ratings):

VELOCITY LOAD AND PITCHING DEVELOPMENT

90sec at 90' w/ crow hop. 80% PEL.

90sec at 110' w/ crow hop. 80% PEL.

90sec at 90' w/ crow hop working 2FB / 1CH. 80% PEL. Unhooked.

1min at 60' w/ pitching delivery working 1FB / 1CH. 80% PEL. (BH)

SUN (2min rest between distance ratings):

VELOCITY FLUSH AND OFF SPEED PITCH TRAINING

90sec at 90' w/ crow hop. 80% PEL (BH)

90sec at 90' w/ crow hop. 80% PEL (FH)

90sec at 70' working 1FB / 2BB. 80% PEL. (BH)

90sec at 60' w/pitching delivery on flat working 2FB / 1BB. 80% PEL. (FH)

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Tues - Distance

Wed - Sprint Interval

Fri - Medium Distance

Sat - Light Interval

Sun - Agility Ladders

STRENGTH COMPONENT:

Description of strength circuits listed above.

Tues - Circuit #5 Wed - Circuit #4 Fri - Circuit #2

-WEEK 5 DAILY ROUTINE-

DELIVERY COMPONENT (FH). SAME SEQUENCING:

TUES, WED, FRI, SAT, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 1-3 @ 60' (described in videos). 8x per drill at 80% PEL.

LONG TOSS COMPONENT (BH). THROW TO OPPOSITE ARM SIDE UNLESS DENOTED: TUES, FRI (90sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

90sec at 100' w/ crow hop. 80% PEL.

90sec at 135' w/ crow hop. 90% PEL.

2min at 90' w/ crow hop. 100% PEL. BH for 1min. Unhooked for 1min.

90sec at 90' w/ crow hop working 2CH / 1FB. 80% PEL. Unhooked.

8 pitch flat bullpen. All FBs. 90% PEL. (BH)

12 pitch bullpen off mound. All FBs. 90% PEL. (BH). Last 4 pitches are unhooked.

PITCHING/VELOCITY COMPONENT (FH). ALTERNATE INSIDE/OUTSIDE:

WED, SAT (2min rest between distance ratings):

VELOCITY LOAD AND PITCHING DEVELOPMENT

90sec at 90' w/ crow hop. 80% PEL.

90sec at 110' w/ crow hop. 80% PEL.

90sec at 90' w/ crow hop working 2FB / 1CH. 80% PEL. Unhooked.

1min at 60' w/ pitching delivery working 1FB / 1CH. 80% PEL. (BH)

SUN (2min rest between distance ratings):

VELOCITY FLUSH AND OFF SPEED PITCH TRAINING

90sec at 90' w/ crow hop. 80% PEL (BH)

90sec at 90' w/ crow hop. 80% PEL (FH)

90sec at 70' working 1FB / 2BB. 80% PEL. (BH)

90sec at 60' w/pitching delivery on flat working 2FB / 1BB. 80% PEL. (FH)

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Tues - Distance

Wed - Sprint Interval

Fri - Medium Distance

Sat - Light Interval

Sun - Agility Ladders

STRENGTH COMPONENT:

Description of strength circuits listed above.

Tues - Circuit #5

Wed - Circuit #4

Fri - Circuit #2

Sat - Circuit #3

Sun - Circuit #1

-WEEK 6 DAILY ROUTINE-

DELIVERY COMPONENT (FH). SAME SEQUENCING:

TUES, WED, FRI, SAT, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 4-6 @ 60' (described in videos). 6x per drill at 80% PEL.

LONG TOSS COMPONENT. THROW TO OPPOSITE ARM SIDE UNLESS DENOTED:

TUES, FRI (90sec rest between distance ratings):

ARM STRENGTHENING AND SCAP LOAD/UNLOAD TRAINING

90sec at 125' w/ crow hop. 80% PEL. (BH)

90sec at 150' w/ crow hop. 90% PEL. (FH)

90sec at 150' w/ crow hop. 90% PEL. (BH)

90sec at 110' w/ crow hop. 80% PEL. (FH)

90sec at 80' w/ crow hop working 1FB / 2CH. 90% PEL. Unhooked

8 pitch flatground bullpen. Alternate 1FB / 1CH (inside and outside on FB. CH outside). 90% PEL. (BH)

16pitch bullpen off mound. 3FB inside / 3FB outside / 2CH / 1FB / 2BB / 1FB / 2BB / 2FB. 90% PEL with last 2FB at 100% PEL. BH for 5pitches. FH for 5pitches. Unhooked for last 5pitches.

PITCHING/VELOCITY COMPONENT . THROW TO OPPOSITE ARM SIDE UNLESS DENOTED.

WED (60sec rest between distance ratings):

MEDIUM FLUSH TRAINING AND "TOUCH AND FEEL" PEN

90sec at 90' w/ crow hop. 80% PEL. (FH)

90sec at 100' w/ crow hop. 80% PEL. (BH)

90sec at 100' w/ crow hop. 80% PEL. (FH)

15pitch flatground bullpen - all pitches. (FH). Alternate inside/outside on FBs only. Unhooked for last 30sec

SAT (60sec rest between distance ratings):

LIGHT FLUSH TRAINING

60sec at 90' w/ crow hop. 80% PEL. (FH)

60sec at 100' w/ crow hop. 80% PEL. (BH)

60sec at 100' w/ crow hop. 80% PEL. (FH)

60sec at 90' w/ crow hop. 80% PEL. Unhooked.

SUN (2min rest between distance ratings):

VELOCITY LOAD AND CHANGE UP TRAINING

90sec at 110' w/ crow hop. 90% PEL. (BH)

2min at 140' w/ crow hop (on a line w/ a bounce). 100% PEL. (FH)

2min at 140' w/ crow hop (on a line w/ a bounce). 100% PEL. (BH)

90sec at 110' w/ crow hop. 100% PEL. Unhooked 90sec at 90' w/ crow hop. 1FB / 2CH. 90% PEL. Unhooked

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing.

Tues - Distance

Wed - Light Interval

Fri - Medium Distancce

Sat - Sprint Interval

Sun - Agility Ladders

STRENGTH COMPONENT:

Description of strength circuits listed above.

Same as Week 5.

-WEEK 7 DAILY ROUTINE-

DELIVERY COMPONENT (BH). SAME SEQUENCING:

TUES, WED, FRI, SAT, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 1-3 @ 60' (described in videos). 6x per drill at 80% PEL.

LONG TOSS COMPONENT. THROW TO OPPOSITE ARM SIDE UNLESS DENOTED: SAME AT WEEK 6 EXCEPT:

Bump bullpen up to 20 pitches.

- -3FB inside / 3FB outside / 2CH / 2BB (all at 90% PEL). BH
- -2FB inside / 2FB outside / 2CH / 2BB (all at 90% PEL). FH
- -2FB at 100% PEL. Unhooked.

PITCHING/VELOCITY COMPONENT. THROW TO OPPOSITE ARM SIDE UNLESS DENOTED:

Same as Week 7.

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing. Same as Week 6.

STRENGTH COMPONENT:

Description of strength circuits listed above.

Same as Week 6.

-WEEK 8 DAILY ROUTINE-

DELIVERY COMPONENT (BH). SAME SEQUENCING:

TUES, WED, FRI, SAT, SUN (30sec rest between drills):

MOVEMENT / MECHANICAL EFFICIENCY TRAINING

Drills 4-6 @ 60' (described in videos). 8x per drill at 80% PEL.

LONG TOSS COMPONENT. THROW TO OPPOSITE ARM SIDE UNLESS DENOTED: SAME AS WEEK 7 EXCEPT:

Bump bullpen up to 27 pitches.

- -3FB inside / 3FB outside / 2CH / 2BB (all at 90% PEL). BH
- -2FB inside / 2FB outside / 2CH / 2BB (all at 90% PEL). FH
- -2FB inside / 2FB outside / 2BB / 2CH / 1FB (all at 100% PEL). Unhooked

PITCHING/VELOCITY COMPONENT. THROW TO OPPOSITE ARM SIDE UNLESS DENOTED:

Same as Week 7.

RUNNING/RECOVERY COMPONENT:

Description of running plans listed above. Do arm care/recovery after throwing. Same as Week 7.

STRENGTH COMPONENT:

Description of strength circuits listed above.

Same as Week 7.

*Developed from data and on field playing and coaching expertise gathered from MLB pitchers Jim Parque and Mike Sirotka, NCAA pitching coaches Sean Taunt and BA Garner, Big League Edge Performance Baseball, and 2 university biomechanical and kinesiology departments. Over 16 different independent studies and over 5000 pitchers (youth to MLB) were tested throughout a 5-year period.