



2023/2024 OFFSEASON



BASEBALL FUTURES CANADA

OFFSEASON TRAINING GUIDE

HELPING CANADIAN BASEBALL PLAYERS ACHIEVE THEIR DREAMS

PITCHING

2023/2024 OFFSEASON



GIVING BACK TO THE **CANADIAN** BASEBALL COMMUNITY

Currently in the baseball training marketplace, there is an emphasis on both high strength volume and velocity increases without a proper end goal. While these methods do assist in player development, proper throwing mechanics and movement patterns outweigh improper training methods.

Baseball Futures Canada was established to develop young athletes based on feel and movement – which are the keys to creating a healthy, durable athlete who can stay healthy and make the most out of their baseball career.

2023/2024 OFFSEASON

MEET DAN CONNERTY



PLAYER DEVELOPMENT CAREER

PRINCIPAL DIRECTOR
BASEBALL DEVELOPMENT GROUP
2018-2019

DAN THROUGH HIS COACHING HAS WORKED WITH OVER:



15 PROFESSIONAL BASEBALL PLAYERS



12 TEAM CANADA JUNIOR NATIONAL PLAYERS



65 NCAA/COLLEGIATE BASEBALL PLAYERS

2023/2024 OFFSEASON

MEET DAN CONNERTY



PLAYING CAREER

PROFESSIONAL

HAMILTON CARDINALS (INTERCOUNTY BASEBALL LEAGUE)

COLLEGIATE

NORTHWOOD UNIVERSITY (NCAA DIVISION 2)

CONCORDIA UNIVERSITY (CANADIAN COLLEGIATE BASEBALL ASSOCIATION)

COLLEGIATE SUMMER LEAGUE

BROOKS BOMBERS (WESTERN CANADIAN BASEBALL LEAGUE)

SOUTH FLORIDA TITANS (FLORIDA GULF COAST LEAGUE)

2023/2024 OFFSEASON

MEET DAN CONNERTY



PITCHING METRICS

MAX PULLDOWN VELOCITY = 100 MPH

MAX MOUND VELOCITY = 94 MPH

PHYSICAL METRICS

BACK SQUAT RECORD = 565 LBS

DEADLIFT RECORD = 585 LB

*NORTHWOOD UNIVERSITY IRON WOLF WINNER
(2015, 2016)*

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2023/2024 OFFSEASON

The BFC Training program is built upon the core concept that proper development programming and quality coaching lead to further improved success.

Without both proper programming and quality coaching working together hand in hand, it leads to subpar results as a whole – and limits the ability of player's development over an off-season in general.



INTRODUCTION - BFC TRAINING PROGRAM

2023/2024 OFFSEASON

This planned program runs from October – April over a 7 month period, with a specific approach to skill-specific developments, and building a strong baseline framework of athletic strength and mobility.

BFC's program also follows a professional/collegiate pitchers development plan timeline – with the ultimate goal for players to be at their best once the season starts in May.



INTRODUCTION - BFC TRAINING PROGRAM

2023/2024 OFFSEASON

For most players, parents, and coaches, there will be some new concepts to grasp in this program that are difficult and do take time to see tangible results.

It is my goal with this program to provide as much knowledge and understanding to everyone involved, so that we create the best possible environment for players to get better – and potentially take their career to the next level in the future.

DAN CONNERTY – OWNER, BFC



INTRODUCTION – BFC TRAINING PROGRAM

01

2023/2024 OFFSEASON

PROGRAM OVERVIEW



IMPORTANCE OF TEST-RETEST

In order to establish an environment that is built on improvement and the success that it provides, athletes need to understand their current baseline metrics.

BFC prides its programs on the ability to test for specific metrics that have as much carryover to athletic performance in baseball, in order to show positive improvement in expected play.

By consistently retesting athletes throughout an offseason (or even session to session), it provides feedback to an athlete, coach, and parent as to if improvement is taking shape – and if not, it can identify some of the deficiencies leading to stagnant development.



BFC ASSESSMENT DAYS

BFC Assessment Days will happen 3x/offseason, over the full 22 week schedule thru October – April (7 months).

Each day will consist of gathering general metrics, such as height, weight, and physical metrics from a smart scale that include BMI, Metabolic Rate, body fat percentage, and muscle mass.

From there, a full velocity profile is completed with pulldown and mound testing at 100% intensity. As well, a strength profile is completed by testing metrics such as grip strength (which is a major determinant of elbow issues), and jumping distances (a barometer of power and rotational ability).





BFC METRICS ASSESSED

GENERAL METRICS

Height
Weight
Body Fat Percentage
Muscle Mass
Resting Metabolic Rate

DEVICE USED
Bluetooth Smart Scale

BASEBALL METRICS

Pulldown Velocity
Mound Velocity

DEVICE USED
Pocket Radar Gun

STRENGTH METRICS

Grip Strength
Standing Long Jump
Lateral Jump

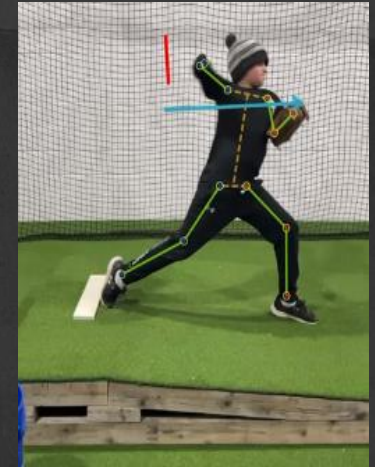
DEVICE USED
Grip Dynanometer

MECHANICAL REVIEW

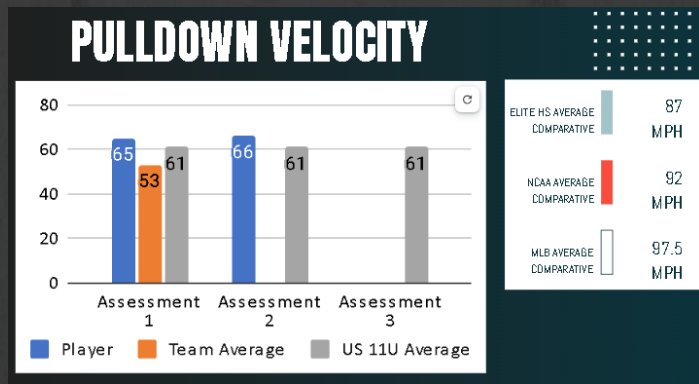
Outside of the general BFC Assessment, each assessment day will include a mechanic review for each player.

For this review, each player will have slow-motion video reviewed and analyzed by BFC, with specific positive and negative aspects for improvement identified in each breakdown video.

These videos are usually between 5-10 minutes in length, and will have specific diagrams associated to further show how things look mechanically as we work through the offseason.



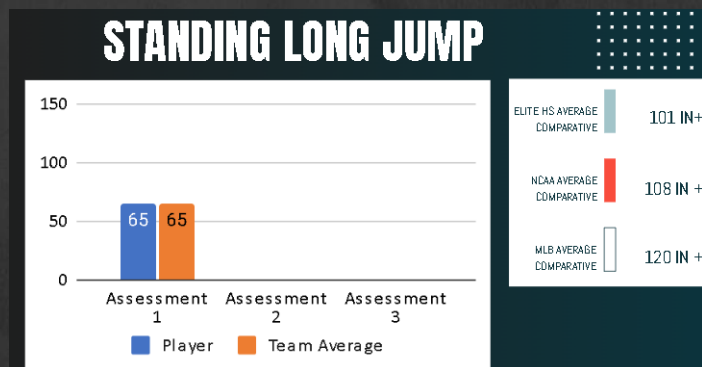
BFC PROGRESS REPORT



Each player will be provided a BFC Progress Report, which will further outline all metrics assessed – and be updated after the conclusion of each assessment day.

METRICS ASSESSED

Velocity
Strength / Power



COMPARATIVES

Team Averages
US Age Averages

02

2023/2024 OFFSEASON

BFC THROWING PROGRAM



PROPER THROWING OUTLINE



During the offseason, professional and collegiate baseball pitchers prioritize refining their throwing mechanics, boosting arm strength, velocity, and resilience – with specific timelines and programming to accomplish various goals.

This multi-month phase includes gradual throwing reintegration, specialized mechanical drills, velocity pulldowns, blending bullpen sessions, and video analyses in order to fine-tune pitch control and mechanics.

BFC plans to accomplish a similar schedule with its training offering, providing similar progressive training timelines that professional and collegiate players complete – in order to be game ready from day one when the season begins.

THROWING PERIODIZATION

1) ONRAMP PHASE

FOCUS: Building up arm strength to normal levels, while working towards learning new movement patterns and throwing drills

TIMEFRAME: 4 weeks

2) PULLDOWN PHASE

FOCUS: Velocity development through forced intensity of throws, where players learn how to move their body at higher speeds

TIMEFRAME: 6 weeks

3) BLEND PHASE

FOCUS: Taking new velocities and movement patterns, and working towards successful repeatability on the mound

TIMEFRAME: 6 weeks

4) COMPETE PHASE

FOCUS: Working on translating new movements and velocity capacity into live at-bats or simulated game bullpen sessions

TIMEFRAME: 6 weeks

ONRAMP PHASE

After the season completes, it is important to provide the structures within our shoulder and elbow sufficient time to recover. This recovery however does not mean stopping throwing movements all together.

The Onramp Phase is where we engrain proper movement patterns with low-level intensity throws, mostly using a plyoball at limited weights (5-7 oz). These throws are meant to learn new movement patterns and remap our arm action for upcoming higher intensity throws. Once completed, players should be physically ready to push their intensities to increase their velocity profiles.



TIMEFRAME – 5 Weeks
DRILLS – Core Throwing Drills + General Extension Throws

PULLDOWN PHASE

The Pulldown Phase of an offseason is a standard practice to effectively move our body in higher intensities – so we build higher velocity capacity heading to mound work.

This is accomplished through proper footwork higher intensity throws (or pulldowns), which are done so in a structured capacity and at specific intensity variables.

The number one inhibitor in velocity development with younger aged athletes, is their ability to push themselves physically to throw harder. Pulldown throws accomplish this by providing immediate feedback based on timely responses and use of radar gun readings.



TIMEFRAME – 6 Weeks
DRILLS – Intent Throwing Drills + Pulldowns

BLEND PHASE

Blending is when we introduce drill-to-pitch cadences in early bullpen work, to provide the best possible proprioceptive feedback to translate new movements to off the mound throws.

This is done in usually a 1-1 or 2-3 drill/pitch cadence, with the drills implemented specifically focused on improving the deficiencies identified in their video mechanic review.

By doing targeted blend work, players will learn the effectiveness between a 'good' or 'bad' throw mechanically; and will start to repeat these proper mechanics in succinct fashion before more intensive throwing begins.



TIMEFRAME – 6 Weeks
DRILLS – Blend Bullpen Work + Intent Throwing Drills

COMPETE PHASE

In the final stretch of a player's offseason, our goal is to refine the positive improvement seen mechanically and with their velocity – and translate this into game performance.

This is accomplished through specific bullpens with strike percentage and velocity measurements tracked, alongside live at-bats against hitters.

The Compete Phase also looks to introduce and refine secondary pitches, introducing them into a player's arsenal. For most players part of the BFC program, this will either be a proper changeup or two-seam fastball (which has more definitive movement than their four-seam).



TIMEFRAME – 6 Weeks
DRILLS – Bullpens/Live At-Bats + Extended Long-Toss

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Plyoball throws – most notable popularized by Driveline Baseball – is an easy way to introduce varied intensity and weighted throws for drill work; that can be done without a throwing partner or net.

In the BFC program, plyoballs are used extensively for all core throwing drills and various higher intensity throws. This provides a different feedback than throwing a baseball, in order to learn proper high-level throwing patterns in a more streamlined fashion.

At a high level - When it comes to youth usage of plyoballs, going above a 9 oz weight is advised against as this could inhibit some growth plate development with improper programming or coaching oversight.



USE OF PLYOBALLS IN THROWING PROGRAM

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It must be stated that pulldown throws need to be properly programmed and administered, inline with where players are physically in their offseason. Without proper mechanics, pulldown throws can exacerbate improper mechanics and lead to potential injuries or impingement issues around the throwing arm.

Pulldown throws for younger players should specifically be used as an intensity device so players learn more about how their body's move – or can move – if pushed properly physically.

BFC programmed pulldown throws are done in limited cadences during training sessions, and do not go above a 6 oz weight and lower than a 4 oz weight to limit potential arm issues.



PULLDOWNS FOR YOUTH ATHLETES

2023/2024 OFFSEASON

03

BFC S&C PROGRAM



S&C DEVELOPMENT OUTLINE



During the offseason, professional and collegiate baseball players adhere to a structured strength and conditioning regimen focused on strength and power outputs. Notably, programming for these athletes is strategically tailored to synchronize physical development along the strength-speed continuum, ensuring players optimize their explosive power and agility in preparation for the upcoming season.

For younger players however, a lack of overall athletic capacity is apparent; and needs to be addressed before specific tailored strength and conditioning programming can be used effectively. This is accomplished through building a strong baseline of general strength with oxidative movements, and specific introductory plyometric and sprinting movements which allow reflexive ability in athletes to be impacted.

Athletic capacity describes how well a someone can perform physically. In essence, it's a mix of how strong, fast, and skilled they are, as well as how long they can keep going without getting tired

For example in baseball, how fast a pitcher can throw the ball and how quickly they can recover between throws are part of this. Also, things like how flexible they are and how they move their body while pitching matter too.

WHAT IS ATHLETIC CAPACITY?



2023/2024 OFFSEASON

To enhance athletic capacity in baseball pitchers, a comprehensive approach includes targeted physical training in a timely manner.

Incorporating strength training exercises to build muscle power and explosiveness, speed drills and plyometrics to enhance quick movements and reaction times, and mobility routines to improve joint ranges of motion, allows for sustaining energy levels during games and reducing injury risks as a whole.

BUILDING ATHLETIC CAPACITY



Oxidative development has to do with building further vascular function, to improve athletic performance, recovery, and tendon strength.

The BFC S&C model focuses on building athletic capacity through oxidative exercises, which usually involve explosive movements pushed to muscular failure (or near muscular failure) for timed sets on a repeated basis.

OXIDATIVE DEVELOPMENT





S&C COMPONENTS

BASELINE STRENGTH

Pushups
Squats
Planks

PLYOMETRIC ABILITY

Standing Long Jump
Lateral Jump
Single Leg Hops
Continuous Jumps

SPRINT/ SPEED WORK

Short-Distance Sprints
Lateral Sprint Work

BASELINE STRENGTH

As a pitcher, it is of utmost important to be able to have general strength in three different areas: Pushing power, hip-hinging strength, and anti-rotational core stability. All of these can be accomplished and easily implemented with very basic exercises such as pushups, squats and planks.

In the BFC program, these exercises are done in high-intensity intervals over timed sets – in order to maximize the oxidative ability of the exercise. By doing so, we fulfill maximum fast-twitch fiber recruitment and provide capacity building movements that effectively build tensile strength through occlusion (or a strong workout ‘pump’).



PLYOMETRIC ABILITY

Moving explosively down the mound is a strong trait that is usually singled out and trained specifically in skill-specific movements. However, this is often most effectively trained by creating a more reflective athlete, that can absorb and translate power vertically and laterally – rather than in one specific plane.

As part of the BFC program, this is done through specific jumps across various planes – with the goal to improve distances, height, and how players can control their movements. Such movements provide the ability for players become more ‘jumpy’ in nature, which will translate to off the mound throws more effectively as they pitch.



SPRINT/SPEED WORK

Usually in most training programs, long-distance running such as 'poles' are common – which develop more slow-twitch muscle fibers in our legs, causing less athletic pitchers overall. Sprint work is one of the most overlooked aspects in pitching training and is a key factor to improving overall power development and athletic capacity.

To maximize this in the BFC program, players will be subjected to both short distance sprints and lateral relay movements in a timed fashion; in order to build aerobic capacity and overall explosive speed. These drills will usually be gamified against other players to provide a more competitive atmosphere overall.



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04

BFC MOBILITY



MOBILITY OUTLINE



During the offseason, both professional and collegiate baseball players place a strong emphasis on mobility training to bolster joint integrity, strength, and stability within specific ranges of movement.

One of the newer methods to train mobility is FRC® Conditioning created by Dr. Andrea Spina and Dr. Michael Chivers – which is used by over 17 MLB teams and their training staffs. This training style focuses specifically on strengthening joints at end-range movements and builds more mobile athletes gaining range within their shoulders, arms, hips and spine specifically.

BFC's mobility program focuses on these FRC® principles to build a more mobile, stronger, and resilient pitcher that can withstand the physical demands of their development.

Physical mobility pertains to an individual's capacity to engage in a wide spectrum of bodily movements with ease and effectiveness, encompassing activities like walking, bending, lifting, and performing everyday tasks.

It is gauged through comprehensive assessments that analyze factors such as joint flexibility, muscle strength, balance, and coordination

WHAT IS MOBILITY?



Stretching primarily focuses on increasing the flexibility of muscles and tendons by elongating them through static movements. Mobility exercises aim to enhance functional movement patterns, often incorporating stability work, and body awareness drills.

While both stretching and mobility play a role in athletic development of baseball players, being able to control our movement patterns is key.

STRETCHING VS MOBILITY



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FRC® Training is uniquely designed to enhance athletes' end-range joint mobility and stability. Through controlled articular rotations, PAILs & RAILs, and progressive loading, FRC® systematically expands active range of motion while reinforcing joint strength.

This approach mitigates injury risks but also cultivates optimal movement competence, strength, and resilience, empowering athletes to excel in their sports.



FRC TRAINING – BEST CARRYOVER TO BASEBALL



FRC COMPONENTS

END-RANGE MOBILITY

Controlled Articular
Rotations
(CARS)

End-Range Rotations
(90-90)

END-RANGE STABILITY

Progressive Angular
Isometric Loading
(PAILs)

Regressive Angular
Isometric Loading
(RAILs)

FASCIAL STRETCHING

Progressive Loading
Strategies at End-Range
Positions

END-RANGE MOBILITY

End-Range Mobility is achieved by building further movement within our joints, by working consistently to improve our range of motion within our body. This is accomplished through both Controlled Articular Rotations (CARs) and End-Range Rotations.

Controlled Articular Rotations (CARs) are deliberate joint movements performed through the complete range of motion, aimed at enhancing joint health and mobility. End-Range Rotations are movements in constrained positions, where accessing further mobility in these spaces is accomplished by specific rotations.

BFC's program entails using CARs as part of our session warmup, and End-Range Rotations for our hips in a 90-90 position to build pitcher-specific mobility for throwing positions.



END-RANGE STABILITY

Being strong in end-range positions as a pitcher is essential to positive performance, but players also need to be stable across their body and specific joints at release in a healthy manner.

With FRC® Conditioning, this is accomplished via exercises titled PAILs and RAILs. Progressive Angular Isometric Loading (PAILs) and Regressive Angular Isometric Loading (RAILs) improve joint flexibility and stability by applying force in order to push a joint into a greater range of motion while contracting opposing muscles.

BFC's mobility program uses PAILs and RAILs to further increase mobility in the hip and groin area mainly, in order to improve a player's ability to get into higher level lower body throwing patterns.



FASCIAL STRETCHING

Fascial muscle refers to the connective tissue network surrounding muscles, providing structural support to joints in our body. This initial layer of muscle if left tight can often be a major contributing factor to most arm and elbow injuries and needs to be attended to in a targeted fashion.

Fascial stretching employs progressive loading strategies to optimize the flexibility of the intricate fascial network enveloping muscles and organs. By gradually increasing tension through controlled stretches and dynamic movements, it aims to enhance elasticity and range of motion in order to become more resilient tissue.

BFC's mobility program uses fascial stretching methods mainly in our chest, and elbows – as this is an easy way to provide proper mobility stimulus to these areas without heavy intervention.



2023/2024 OFFSEASON

05

BFC NOTES / WORKOUT SCHEDULE





TRAINING SESSION

WARMUP

GAINING
FUNCTIONAL
RANGE MOBILITY
OF JOINTS TO GET
INTO PROPER
THROWING
PATTERNS

CORE DRILL WORK

SPECIFIC
THROWING DRILLS
TO TEACH PROPER
THROWING
MECHANICS

PITCHING / PULLDOWNS

USING MOUND
WORK/PULLDOWNS
TO ESTABLISH NEW
MOVEMENT
PATTERNS TO
IMPROVE GAME
PERFORMANCE

S&C + FRC® MOBILITY

PROPER FRC®
MOBILITY
PROGRAMMING TO
STRENGTHEN HIP
AND SHOULDER
JOINTS

EXPECTED TRAINING SCHEDULE



IN-PERSON TRAINING

1X/WEEK – AS
STRUCTURED BY BFC



AT-HOME TRAINING

1-2X/WEEK –
Strength/Plyometrics/
Conditioning

DAILY (if possible) –
CAR Rotations / Mobility



AT-HOME WORKOUTS

All BFC athletes will be provided specific sample at-home workouts to complete – which mainly focus on further strength, sprinting, and mobility work.

For these workouts, it is expected that players complete them as outlined outside of in person BFC session – in order to maximize a player's development ability over the 22 weeks.

As the physical and nervous system fatigue on these workouts is minimal – compared to BFC in person sessions – at-home workouts will provide further opportunities for players to improve themselves over the winter months.

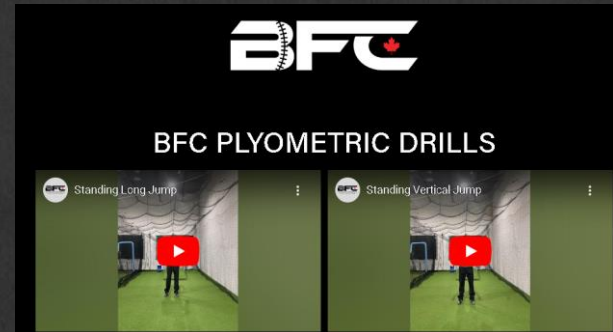
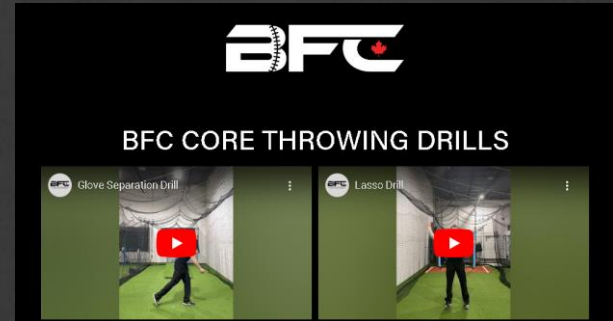
			
AT HOME WORKOUTS - ONRAMP PHASE			
STRENGTH EXERCISES - 3-2X/WEEK			
EXERCISE	SETS	REPS	REST
SQUATS	3	45 SECONDS	90 SECONDS BETWEEN SETS
PUSHUPS	3	45 SECONDS	90 SECONDS BETWEEN SETS
PLANKS	3	45 SECONDS	90 SECONDS BETWEEN SETS
MOBILITY EXERCISES - CAN BE DONE DAILY			
CAR ROTATIONS	NECK	OTHER EXERCISES	SETS + REPS
	3 ROTATIONS - SLOW TEMPO	90-90 DRIPS	3X5 DROPS - SLOW TEMPO
SPINE	3 ROTATIONS - SLOW TEMPO	90-90 INT. PAIL/RAIL	3 MINUTE HOLD + 30 SECONDS PAIL + 30 SECONDS RAIL
SHOULDER	3 ROTATIONS - SLOW TEMPO	90-90 EXT. PAIL/RAIL	3 MINUTE HOLD + 30 SECONDS PAIL + 30 SECONDS RAIL
WRISTS	3 ROTATIONS - SLOW TEMPO	90-90 ROTATIONS	2X5 ROTATIONS - SLOW TEMPO
HIPS (PHONE OR STANDING)	3 ROTATIONS - SLOW TEMPO	SHOULDER FACIAL STRETCH	2 SETS EACH ARM + 30 SECONDS TENSION BETA WALL
PLYOMETRICS & CONDITIONING EXERCISES - 3-2X/WEEK			
PLYOMETRICS	SETS + REPS	CONDITIONING	SETS + REPS
STANDING VERTICAL JUMP	3X50 SECONDS 3 MINUTE REST BETWEEN SETS	INTERVAL SPRINTS	6-8 SETS 4-6 SECONDS @ 90% INTENSITY 10-15 SECONDS JAIL OR REST @ 50% INTENSITY
SINGLE LEG HOPS	3X50 SECONDS EACH LEG 3 MINUTE REST BETWEEN SETS	LATERAL SPRINT RELAY	3 SETS AT 90% INTENSITY
BFC GENERAL ATHLETIC NOTES			
STRENGTH/PLYOMETRICS/CONDITIONING: IF INTENSITY IS TOO HIGH/FEELING FATIGUED + LIMIT SETS AND EXTEND REST PERIODS			
CARDS AND MOBILITY: CAN BE DONE DAILY AS IT DOES NOT TAX OUR CNS SYSTEM HEAVILY			
STRIKE FOR 8+ HOURS OF SLEEP PER DAY/NIGHT (THIS INCLUDES NAPS)			
DRINK BETWEEN 5-7 GLASSES OF WATER PER DAY			

2023/2024 OFFSEASON

Each BFC Athlete will have access to the BFC Video Database – which outlines all drills and exercises with a full walkthrough component.

This will allow for players, coaches, and athletes to get an understanding for each drill before their training session commences; and also to improve upon certain cues in each drill for proper completion in-person or at home.

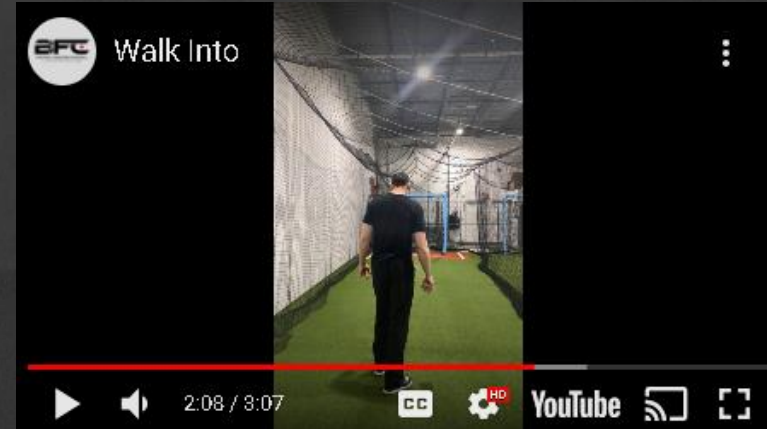
BFC VIDEO DATABASE



2023/2024 OFFSEASON

The goal of the BFC Video Database is to provide as much knowledge as possible to both athletes, parents, and coaches in order to create a positive feedback development loop for athletes.

Athletes who want to improve – and see the importance and success it provides – can now access all the information they need to accomplish their goals outside of the in person training sessions provided.



HOW TO USE DATABASE AS BFC ATHLETE

2023/2024 OFFSEASON

One comment from players part of BFC training in the past has been they do not continue their drill work outside of in person sessions.

This does not provide a great opportunity for players to really hone in on their movements being learned – and can inhibit a player's ability to develop.

As such, it is suggested that during team practices players look to continue their drill work – be it in extra sets after practice, or during their throwing warmup.



CONTINUED DRILL WORK AT TEAM PRACTICES



HELPING CANADIAN BASEBALL
PLAYERS ACHIEVE THEIR DREAMS



WEBSITE



INSTAGRAM



TIK TOK



EMAIL