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The Fish Go CrossFit

Florida Marlins strength and conditioning coach Paul Fournier brings CrossFit to Major League Baseball players.

By Paul Fournier

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Dennis Bancroft

We all know the three standards of fitness the CrossFit community stands by: capacity in each of the 10 general physical skills, development of each of the three energy systems the body uses for all basic movement, and the ability to perform well at every possible task—even on a Major League Baseball field.

162 Games, 1 Million Different Challenges

CrossFit's three fitness standards provide general physical preparedness for everyday athletes, but they also prepare professional baseball players for the demands of their sport.

We can all see how the 10 physical skills apply. In short, the list comprises everything athletic. In a highly skilled sport such as baseball, not all are athletes, but the good players are certainly athletic, and most were multi-sport athletes prior to being professional baseball players.

Baseball players also utilize all three metabolic pathways, though a player's position will affect which energy system is dominant and when.

The game, of course, is ever-changing and presents infinite scenarios. Fielders are asked to field balls at every possible angle and speed. Baserunners are stealing bases, stretching doubles into triples and avoiding tags, all of which require the ability to process information provided by one's senses and then react athletically to the stimuli. Starting pitchers must deliver 100 pitches to the plate with extreme accuracy using explosive movements. Catchers squat for hours before being asked to throw out a runner in a split second or block a ball in the dirt, chase a wild pitch to the backstop, back-up first on an infield ground ball, and then hit and sprint around the basepaths.

My role is to improve Florida Marlins baseball players athletically or enhance performance, but it's also one of injury prevention. In some eyes, preventing injuries is more important because of the business of baseball. It takes financial decisions to run a team, and every player who becomes injured is still entitled to his salary even though he is not productive for the "company"—never mind the fact that injuries to the more talented players result in losses of important production that might be the difference between a seat in the dugout or a seat on the couch in October. It also costs additional money to bring someone up from the minor leagues to fill the void left by that injured player.

If a baseball player is adequate in all three of CrossFit's fitness standards, he will have a better chance to be injury-free and perform to his best ability throughout the 162-game regular season—plus playoffs!



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Traditionally, baseball players have done less strength and conditioning that many other professional athletes. According to Paul Fournier, the younger generation of baseball players—including NL Rookie of the Year Chris Coghlan—is embracing fitness as the secret to high performance and long careers.

You can certainly understand the importance of keeping healthy players on the field, and isn't a "fit" player a healthier player? I feel the answer is yes, especially if we are using the definition of fitness that CrossFit has provided. A general physical preparedness type of program will equip the player for whatever he may encounter on the field of play, and if a baseball player is adequate in all three of CrossFit's fitness standards, he will have a better chance to be injury-free and perform to his best ability throughout the 162-game regular season—plus playoffs, hopefully!

Integrating CrossFit Into the Big Leagues

I heard about CrossFit from a respected swim coach in West Palm Beach, Fla. I checked out CrossFit.com and immediately became excited about what the program brought to the table. After jumping into CrossFit at a local affiliate, I thought the programming was similar to my own thoughts on interval training and intensity. I was immediately thinking how to apply CrossFit's methodology to what I do for baseball players.

It's difficult to introduce new movement patterns to baseball players during spring training. A player's training intensity is very individualized as well. Again, injury prevention is No. 1 on the list of precautions, and implementing new patterns during spring training can increase injury frequency—and no one wants that. Integrating CrossFit into a professional baseball program becomes tricky, and you need to rely heavily on your player evaluations.

The real time to introduce new training methods is during the offseason, before baseball activity is initiated. The truth is this: no training method must be allowed to negatively affect on-field performance because of injury, fatigue or recovery issues. Whether players are trying to make the Major League team or trying to get ready for the long season ahead, training methods can't get in the way of 100 percent baseball participation. Management is concerned with two things when it comes to strength and conditioning programs in professional baseball: is the player fit and is the player healthy?

Pre-CrossFit Screening for Pros

CrossFit's methodology is appropriate for a skill sport such as baseball, but not for every player, and not all the movements as prescribed all the time. First of all, players come in all shapes and sizes, and they come with different medical histories and different training experiences. Age and position also play a role. Baseball itself isn't very



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Hanley Ramirez won the 2009 NL batting title (.342 average), and it's Paul Fournier's job to make sure Ramirez has the strength and conditioning to perform at a high level through 162 games.

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Spring training is the time when player fitness is evaluated. These evaluations will highlight weaknesses and injuries and indicate which players will benefit from high-intensity programs such as CrossFit.

experienced in training methods. In fact, strength and conditioning is a relatively new concept to the game, so older players are not as receptive to certain training methodologies, especially during the season.

The CrossFit training method can be a very valuable tool for the baseball player. Weak players will get stronger, fat players will become leaner, and athleticism will improve.

As part of our screening prior to spring training, all my players go through a series of performance tests to identify deficits that may predispose that player to injury. The tests will also identify individuals who require corrective exercise programs, as well as those who can participate in a more aggressive exercise program (i.e., CrossFit-style training).

I look at body composition, girth measurements, grip strength at zero degrees of shoulder adduction and 180 degrees of shoulder abduction, as well as shoulder and elbow range of motion. We also look at movement patterns as part of a functional movement screen, as proposed by physical therapist Gray Cook. They include an overhead squat, hurdle step and active straight-leg raise. We will also do a vertical jump for leg power (or triple extension), and a 30-yard sprint with a 10-yard split from a functional position for position players. We'll also perform an estimation of VO₂ max test on a bike for pitchers. All this information, along with the player's medical history, age and training experience, will be considered.

If a player cannot do an overhead squat during our screening without pain or efficiency, we obviously will not prescribe that exercise to him until his hips have been mobilized or his ankle flexibility has increased and so on. But that doesn't mean he can't do an air squat and a push-press progression instead. And nothing is black or white. A combination of corrective exercises along with CrossFit-style training can prove to be a valuable tool.



Paul Fournier

Pitcher Steve Cishek uses ring rows in places of pull-ups that could tear up his pitching hand.

Paul Fournier's Favorite WODs for Ballplayers

One of my favorite WODs is Tabata This, where we substitute ring rows for pull-ups. It can be done anywhere in a relative short period of time.

Angie, Annie, Barbara, Chelsea and Cindy all fit in that category as well. Fran and Helen are also great, especially when we sub ring rows for pull-ups and stop the kettlebell swing at head height. Another great one is Karen. All I need is a ball and a wall. We will also occasionally mix in a tire flip and sledgehammer swing. And, of course, burpees work with anything. Minimal equipment, maximal results!

We will slowly introduce new movements this year, incorporating rowers and more deadlifts.

Forging Fitter Baseball Players

A player's position and how often he plays will affect his training. Most of us have torn our hands on more than one occasion while doing a kipping pull-up, muscle-up or even a kettlebell swing. A blister may not only put a pitcher on the disabled list but can also affect his throwing mechanics and move the stress up the kinetic chain to the elbow or shoulder. A tear or blister can affect a position hitter's swing dramatically, so not every exercise (as prescribed) may be beneficial. But the beautiful part of the CrossFit methodology is that it can be scaled and adjusted as needed.

Obviously, certain exercises that need to be scaled in season may be very applicable during the off-season. A player who comes off the bench a few times per week to pinch hit or pinch run or as a defensive replacement can certainly train with a greater intensity or load than an everyday player. As you can see, there is a lot to consider.

Baseball is a unilateral sport with tremendous rotational velocities (i.e., a right-handed hitter rotates only in one direction, while a left-handed pitcher only throws or rotates in another direction), and most players have been performing these movements for the majority of their lives. Certain imbalances have usually occurred over time, and these imbalances need to be addressed before diving into any strength program. We utilize foam rollers, massage sticks and trigger-point balls for tissue prep prior to warm-up. Our warm-ups include dynamic movements—such as hurdle work, air squats, walking lunges, bounding exercises, leg kicks and others—followed by some static stretching as well. Static stretching has been looked down upon in recent years, but we believe static stretching is important in baseball due to the need to elongate certain musculature about the hips.

CrossFit teaches us to be prepared for whatever comes our way, which is important because not every game goes as scripted. Players need to adapt. Routine is the enemy.

Training movements specific to baseball would require training rotational movements, but I believe that if you train sport-specific movements all the time, the player is being set up for an overuse injury. CrossFit movements do not involve any rotation but nevertheless enable the athlete to maintain and maybe even increase rotational velocity by increasing linear velocity.

The CrossFit training method can be a very valuable tool for the baseball player. Weak players will get stronger, fat players will become leaner, and athleticism will improve. CrossFit methodology teaches players that momentum generated via core-to-extremity movement is very important in baseball to create force on the field, just as it is in a kip or kettlebell swing. The ability of CrossFit-style training to address the 10 physical skills makes my players better prepared for the game and more dangerous when they take the field.

Athletes improve with triple-extension training such as in a clean, wall-ball or glute-ham exercise, and such training also helps reduce posterior-chain injuries. If you look at a pitcher at ball release, a hitter at time of contact or a fielder

diving for a ball, you will see extension. CrossFit training methods puts these players into the positions in which they will find themselves on the field.

The ability to transfer force through a strong core to the extremities allows for greater ball velocity and bat speed. Any weaknesses along this kinetic chain can predispose a player to injury, but CrossFit methodology minimizes this through interval training utilizing strength modalities, gymnastics-style movements and metabolic conditioning. A multitude of exercises that seem rather random—but really aren't—are used to address the body as a whole, and we do not focus on individual parts like you might find with some of the more "traditional" training methods.

CrossFit-style workouts can be done anywhere, which is important for big-league ballplayers. We spend 81 games on the road during the summer. No matter what stadium we play at, we can certainly find a place to get our work done due to CrossFit's adaptability. Whether it's on the field, the concourse or in the weight room, we will find space.



Paul Fournier

Top Marlins prospect Logan Morrison hopes swinging a sledgehammer will bring him a chance to swing for the fences in the Big Leagues on a regular basis.

Players are attracted to CrossFit training methods for several reasons. The catchers and corner infielders, as well as utility players, like the hard, fast-as-you-can-for-as-long-as-you-can intensity, and pitchers like the gymnastics-type body-weight exercises. One of our catchers has taken to CrossFit's methods very well. He caught the majority of the games this year, and he feels that it is his training methods that are the reason for his presence in these games.

Players also find CrossFit-style training appealing due to the relative quickness of a workout. Several movements can be put together in succession to elevate heart rate and to train the appropriate energy pathways for a workout that can be, in many instances, 10-15 minutes in duration. When an everyday player is training at 10:30 at night after a game and is hungry after being at the ball park since 2 or 3 p.m., maximum return in the shortest time becomes very important. A player will not participate in any training scheme unless that player feels he is getting something out of it. CrossFit gives a player that feeling.

CrossFit, with its multi-jointed functional movements, will prove to become more popular in professional baseball in the near future.

Another important aspect of CrossFit methodology comes from its sense of randomness. Baseball players are creatures of habit. They believe in routine, almost to a fault. They're very regimented when it comes to what they eat, how they wear their uniform, how many swings they take in the cage or pitches in the bullpen, and, of course, what and when they train. CrossFit teaches us to be prepared for whatever comes our way, which is important because not every game goes as scripted. Players need to adapt. Routine is the enemy.

When a player is in season, baseball activity obviously becomes prevalent. It is the player's livelihood. Workouts must be designed to maintain strength and met-con levels



Paul Fournier

Ace starting pitcher Josh Johnson had Tommy John surgery in 2007 but returned to the majors 11 months later. CrossFit WODs can be scaled to keep him healthy and at the very top of his game.

that are needed to play successfully over the long season, so we may reduce the number of rounds or volume of exercise. We may also reduce load or intensity of exercise as needed.

Taking into account the demands of the sport, we carefully select the exercises used in season. Overhead throwing is one of the main demands placed on the baseball player. This unnatural movement places a lot of stress on the upper extremity, mainly the shoulder complex and elbow region. Because of this, we may eliminate some movements, such as the shoulder press or snatch. We may also make adjustments in movements as well, like taking a kettlebell swing to shoulder height rather than overhead. Instead of doing a typical front squat, we may do a goblet squat.

Frequency of training is also adjusted based on position, playing time and recovery concerns. Starting pitchers will do some type of program twice in between starts, while

relievers and everyday position players will work out two or three times per week. Bench players can train four days per week. Again, we concentrate on posterior-chain work with light-to-moderate upper-body work and a moderate amount of midline stability or “core” work, with emphasis on training the body as a whole.

The off-season is a different story. When there is little-to-no baseball activity, the player can immerse himself into the sport of CrossFit fully. As mentioned earlier, it will prepare the player for his season by increasing athleticism and addressing the metabolic pathways needed to play the game of baseball. It will also make the player as dangerous as possible when taking the field because he'll be ready to take on all the variables that a long season will throw at him.

A New Breed of Ballplayer?

The businesspeople of baseball are scared to see intense movements during the season. They are not used to seeing it. They are just getting used to the idea of having strength coaches in baseball. Some of the older ballplayers feel the same, but they are slowly phasing out of the game. In come the younger players, and they want to feel like they accomplished something during a workout. They want results. In baseball, results are the be-all and end-all. No one cares how pretty the out is or how hard the ball is hit, as long as it gets the job done.

CrossFit-style training feeds into their need to compete and their need to feel like someone who battles. I'm already seeing younger guys coming to spring training with some experience with CrossFit methods, and I feel that trend will only continue to grow. CrossFit, with its multi-jointed functional movements, will prove to become more popular in professional baseball in the near future.



Courtesy of Paul Fournier

About the Author

Paul Fournier is a certified athletic trainer through the NATA and a registered certified strength and conditioning specialist through the NSCA. He is also a Level 1 CrossFit trainer. He started in baseball in 1995 as an athletic trainer in the minor leagues for the Montreal Expos, and in 1997 he was promoted to minor-league athletic training, rehabilitation and strength and conditioning coordinator for the Montreal Expos.

In 2002 he became the minor-league athletic training, rehabilitation, and strength and conditioning coordinator for the Florida Marlins. A year later, he was promoted to the strength and conditioning coach position for the Florida Marlins. Paul started to CrossFit at [BGI Fitness](#) in West Palm Beach in October 2008 after researching the CrossFit website for a couple of months.