

Interview: Rick Peterson, Former Pitching Coach NY Mets, Oakland A's

Top of Form

User Rating: / 5

Poor Best

Bottom of Form

Written by Maury Brown

Wednesday, 03 December 2008 05:35



Pitching, pitching, pitching. As it is often heard throughout baseball, you can never have enough of it. Seasons are often won or lost by the rotation and the strength of the bullpen.

With the focus on pitchers, those that become part of the free agency pool can garner some of the highest salaries in baseball.

To place this in perspective, nearly \$1.2 billion was spent on pitching talent in MLB last season.

With so much emphasis being placed on pitching talent, clubs are in a constant state of protecting their investments. and yet, few clubs are doing

much more than “eyeballing” their critical investments to see if there are flaws in their deliveries – a glaring weakness that can cost a clubs millions of dollars and precious ranks in the standings.

Former Mets and Athletics pitching coach Rick Peterson believes there’s a better way to pinpoint areas that may land a pitcher on the DL, or worse, land them on the operating table (read more about Peterson at www.rick-peterson.com). Through his work with American Sports Medicine Institute and a start up he is forming, Peterson sees biomechanics as a way to bring players into a lab, get a series of definitive measurements, and with that data, provide objective analysis that allow clubs to make better educated decisions when it comes to investing in pitching.

And, it’s no longer a case of having to have the pitcher come to the lab. His company can bring the lab to spring training, an amateur facility , or any other location, and run the staff through the system to give organizations the biomechanical information they need to find “red or yellow flags” in a pitcher’s delivery, and get them righted to “green flags” – a sound pitching delivery.

Peterson outlines why the move to biomechnic feedback is so important: last season, \$330 million in pitcher salary sat in the DL. That translates to approx. one-third of all salaries designated to pitchers – a staggering sum.

When coupled with the down-turn in the economy, the investment in the metrics being promoted by Peterson could save clubs millions of dollars.

The following interview with Peterson is an extensive look into pitching, player psychology, how pitcher arm abuse at the amateur level is creating a shorter career expectancy at the professional level. And how biomechanics and the adjustments that can be made to a pitcher’s delivery can prevent injury, or provide sound analysis on pitchers before millions of guaranteed dollars are spent on a pitcher that could fall apart, as opposed to provide the performance that clubs are hoping to see in their investment. – *Maury Brown*

Select [Read More](#) to see the interview with Rick Peterson

Maury Brown for the Business of Sports Network: *With the downturn in the economy, this off-season may be a*

bit different than in the past few years with all but a handful of high revenue clubs being able to spend on free agent talent as freely as in years prior. That means that mid-to-low making revenue clubs will be zeroed in on risk aversion more than ever. For those that may be unfamiliar with your work, when a pitcher is brought in for evaluation, be that through the American Sports Medicine Institute (ASMI), how are they studied to see if they are at risk of injury?

Rick Peterson: First of all, Dr. Andrew's body of work surrounds the study of major league caliber pitching, and/or high end amateur pitching. They came up with forty-two measurements that they measure in a biomechanical analysis. So for example he'll measure stride length, the angle of the foot and foot contact as it relates to your target, the bend of the knee at foot contact, the bend of the knee at ball release, and so on up the chain. External rotation -- I can go on and on with the different measurements. Elbow flux and rotation. How fast the shoulder rotates and how fast the elbow rotates. Those are some of the critical measurements.

So when you get a biomechanical analysis, there's enough data in there – and in that database right now are the names of top pitchers that have pitched in the big leagues. You have Roger Clemens, Tim Hudson, Barry Zito, C.C. Sabathia, Scott Kazmir, Aaron Heilmann, Mark Wohlers and years ago, Al Leiter. I'm trying to think of some other names, but those are some pretty prevalent names to give you an idea of what this database is.

So, when you get your analysis and they look at these measurements, these are the people that you're being compared to – the measurements that you're being compared to. So for example, hip rotation velocities... how fast the hips rotate, is directly linked to fastball velocity. So for example, if you have a pitcher that is say in the low to mid 90s and his hips are rotating slowly you realize that you're putting a lot of stress on the arm. You know, it goes up the chain. If you think of his delivery as an upside down tornado (and that's a pretty good analogy), so when you take a look at for example the external rotation of a pitcher, the external rotation as you finish your cocking phase and you're beginning your acceleration phase, the external rotation is about a hundred and seventy degrees at the cutoff line of normal external rotation. Less than a hundred and seventy degrees, you're looking at some major red flags. So if you have some major red flags in that delivery and continue to pitch, you are definitely running a risk of injury.

One of the best analogies that's been used would be that if you put your foot on the brake of your car and your car pulls hard to the right, you can still drive your car, and it will still perform very well, but you're going to wear out the tread on those front tires very quickly. You're not going to get forty thousand miles out of the tread of those front tires. You put your foot on the brake and you start hearing that squeal and then your brakes are grinding, you know you got some major issues.

When you look at some amazing – just amazing – measurements of the pitching delivery and realize that the speed of this activity, there's a point in time as you finish your cocking phase, meaning that your arm is ready to accelerate through a pitch, from that point most pitchers will either come to a complete stop or come to almost a complete stop, and from that point the acceleration phase lasts .03 seconds. So if you think about that, in .03 seconds that ball is accelerated from zero miles an hour to ninety some miles an hour.

"So if you think about that, in .03 seconds that ball is accelerated from zero miles an hour to ninety some miles an hour."

We did a presentation for about fifteen hundred coaches at the ABCA one year, afterwards a doctor of physics came up to me and said, "Rick, do you know what that acceleration means in G forces?"

And then I laughed and I said, "I have no idea!"

He said, "If your entire body was accelerated at that same rate of speed for over sixty seconds you would die. Your

body could not handle that acceleration, the G forces of that type of acceleration.”

When you look at the shoulder activity through the acceleration phase, and they measure what happens with the shoulder, if everything is in sync, and everything is on time, in coordination with the rotational velocities and the lower body, the upper torso, the shoulder does actually no work during the acceleration phase. If you're late most pitching coaches will say “Hey, you're flying open!” That really means that you're late. And if you're late and you're out of sync then your shoulder has to work very hard through that acceleration phase putting major strain on that shoulder.

Several years ago we brought a pitcher to the lab and he had a hundred and forty-three degrees external rotation. Well, a hundred and seventy is your cut-off of normal range. And in this situation he had a physical dysfunction. He had a physical limitation and he needs greater range of motion for that shoulder, for his external rotators. If that is not increased then he's at major risk of injury. And sure enough, nothing was done because he was healthy at the time. He pitched at ninety-four, ninety-five miles an hour, which is his average velocity, touched ninety-seven, and sure enough by July he was on the disabled list and by August he had major shoulder surgery, and ended up missing two years afterwards.

So, that's a clear example of what happens if there's a red flag. You know, there's some pitchers pitching in the big leagues today that when we brought them in their stride length was too short, the bend of the knee was too firm at foot contact and collapsed at ball release. So if your front knee is collapsing at ball release that means that you're slowing down your hips—your hips are decelerating. So if you think of a hitter and you look at that swing and you think of what happens to the front leg, the front leg firms up or almost locks to a degree – that increases rotational force, by firming up the front leg. To make sure that a pitcher takes yellow flags and red flags and turns them into green flags, there are some conditioning issues that have to be done to make sure that that pitcher, was able to stay healthy.

“Barry Zito probably phrased it the best: ‘To go the lab and get an analysis when you're healthy, that's pre-hab.’”

We focus on two ways to stay healthy. One is a fundamental skill as in delivery. The other is physical conditioning. We make sure that your conditioning program is in sync with improving a pitcher's biomechanical measurements.

Barry Zito probably phrased it the best: “To go the lab and get an analysis when you're healthy, that's pre-hab.”

Bizball: *Given the rigors of the season, how much focus is placed on the efficiency of a player's biomechanics as the season wears on?*

Peterson: Okay. First, let me verbalize it this way. Number one: the biomechanical study is getting forty two measurements from Dr. Andrews' lab and his database and his research. The terminology that we use with pitchers is delivery. And we say delivery because we really don't talk about mechanics. One of the things that we've done as this program has evolved is to establish a diagnosis of your measurements through the biomechanical analysis. Number two, you have a prescription. We look to see if a pitcher has all green flags, or, if they have some yellow or red flags, we make some adjustments to get that back in sync, whether its a delivery issue or a conditioning issue. That being said, what we've done over the years, in attempting to formulate a curriculum, which we now have called the P3 Program or Peak Performance Pitching Triangle

One of the things that we've learned is that there's certain drills that will keep the delivery intact. There are phases to a delivery. You have a phase where the foot hits the ground, you have a phase from the time the foot hits the ground through what they call the cocking phase, where you're ready to accelerate, and then you have your acceleration phase, and then your deceleration phase.

There are four basic phases to the delivery. And what we wanted to do is almost an eastern training method. I studied a lot of eastern philosophy of how they train, mentally and physically, and found it quite fascinating. It's fascinating to use the analogy: wouldn't it be nice to say that you've got your third degree black belt in your pitching delivery, because you've mastered it?



So it's almost like working out for your delivery, if you will. So if you cycle certain drills in certain patterns over time, that's what keeps the delivery intact. So when we've taken guys to the lab, then had them go through this program, had them do these drills, and then come back to the lab, the yellow flags that were there previously, or the red flags, are now green flags. The results are fantastic. The fact that pitchers came to the lab in one particular year, and had some yellow and red flags, in their delivery and went through this program, meaning that they did all these drills, and conditioning program, they came back the following year and all those yellow and red flags were now green.

So, to answer your question, on a daily basis, we go through series of drills, with and without the balls; a lot of throwing and non-throwing, with our eyes closed. That's a technique called active visualization, which literally trains the subconscious, and ties into the eastern training methods and ties into peak performance. When you talk about peak performance levels in the west, people try to describe it through adjectives. They say, "Wow, you know, you were in the zone." I could feel that everything was smooth."

In the east they have a noun for that. It's called satori. And satori means when your mind and body are united as one.

So, when you go through delivery and you go through drills and you go through these drills with your eyes closed, you're cementing this drill and delivery, in your subconscious.

Bizball: *This debate has been ongoing... The number of pitchers throwing complete games has been on the decline for some time. There also seems to be a sense – real or otherwise – that pitchers are less durable than they used to be. With all the training and analysis that is now at a staff's disposal one would think that feedback would lead to more efficiency and therefore, longevity as opposed to increased injury. Are pitchers now pushing their bodies to the edge of falling apart? Or, has the strategy of using more middle relievers simply created starting pitchers that have a game expectancy of 5 or 6 innings?*

Peterson: Let me give you my opinion on this rather than weigh in on your comments. One of the biggest things that Dr. Andrews will say about the amateur market is people feel that in order to perfect our pitching skills we need to pitch all year round. This is simply not true. I look at some of the college programs, they go from the fall schedule, where it ends sometime in early to mid-November and then from that point they also continue to throw on the mound. So, they come back from Christmas break and they're right into their season and when they complete the college season, then they're playing summer baseball. It's all year round.

And as you look at the amateur market, depending on the school, they play games indoor all year round. I know that, there's a facility in the Northeast here that, they play games indoor all year round. Dr. Andrews will tell you that

there's no down time anymore. So, one of the things that's really interesting from talking to Dr. Andrews is looking at post-surgery on some of the kids that are signed and have surgery within their first year. In disparaging the system he'll say, "You know, Rick, this kid had a forty year old elbow!"

Well, how can you be twenty-two and have a forty year old elbow -- unless that was somehow transplanted when he was eighteen? (laughs) That tells you that there's chronic overuse; that the tread on those tires are worn out. So I think that what's happening on the amateur market, and that's directly linked to what's happening in the professional market.

"If you look at the total payroll of pitchers in 2007 it was over a billion dollars. Over \$330 million was spent for injured pitchers... pitchers on the DL. You're looking at thirty percent of the total payroll!"

Another major factor is the economy and the professional market. One of the major shortages in the industry is quality pitching. So any time you lose a starter, I mean you almost feel like you have to be overly cautious because pitchers live "close to the wall" all season long. And once they hit the wall they don't come off of the wall for a while. You never know when they will hit the wall. So quite often if you look at your research -- and the data within it -- take a look at what

happens when guys repeat 130 pitch games, two or three times back-to-back. That track record is not very good for performance and also for people having to take time off. I mean, look at what happens! The pitcher's performance is just not there.

I think what happens on the other end is that you tend to be more cautious than you need to be., But you're so afraid that if you happen to lose a pitcher for a few weeks or a month, the person you're replacing them with is not a fifth starter, it may be a ninth starter.

Look at the facts as it pertains to the loss of money of major league teams. If you look at the total payroll of pitchers in 2007 it was over a billion dollars. Over \$330 million was spent for injured pitchers...pitchers on the DL. You're looking at thirty percent of the total payroll!

That's why when I look at our industry, I believe we have a solution – the biomechanical analysis is a solution to clearly tell you that this pitcher either has all yellow flags, or all green flags, some yellow flags and a red flag or two. It's right there and easy to see. What's amazing to me is that when a team is going to write a check for over \$100 million for a pitcher, they do an MRI, test blood and urine. However, they don't do a biomechanical analysis from Dr. Andrews' research. , That's not part of that program yet in our industry. That's almost incomprehensible to me.

Bizball: *You worked very closely with Barry Zito during his time with the A's and with that, his remarkable curve. When Zito's curve is on, what is it about his mechanics that makes it work so well?*

Peterson: Well, I don't think you can say, "What is it about his mechanics..."

Bizball: *His delivery, then?*

Peterson: His delivery – it's consistent. When we looked at his curve ball and fast ball in the lab, they're very consistent. The wrist angle is different but the overall measurements are all the same. There's not one distinct delivery for a fastball and one distinct delivery for a curve ball. They're in sync. And because it's in sync, the one thing that was interesting he, I believe, if I'm not mistaken, got two more revolutions, full revolutions in rotation on his curve ball than the other curve balls that we looked at in the lab.

Bizball: *And conversely, when his curve is off?*

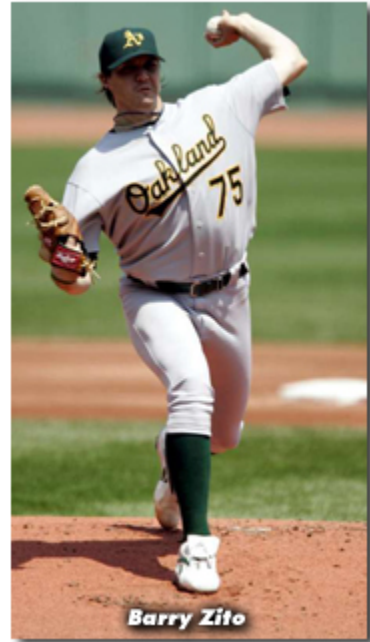
Peterson: It's hard for me to say. It's not fair for me to comment. I haven't seen Barry pitch in six years.

Bizball: *Then, how about his time in Oakland?*

Peterson: Well, in Oakland, if you look at how he pitched, it was pretty darned consistent!

Bizball: *There are a number of pitchers that have unorthodox deliveries. Tim Lincecum is certainly one, but there are others. How do you approach a pitcher where tinkering too much with their mechanics can throw off everything that has been ingrained in them, sometimes since Day One? Can you baseline someone that is unorthodox and work from there?*

Peterson: Well, when you say that you have to understand that deliveries can be very different but the measurements can be healthy. When we brought Hudson and Zito to the lab we knew their deliveries were drastically different. Drastically different! But yet, all the key measurements for both of them are in the normative ranges. For example, you look at a Mercedes and you look at a Lexus SUV. Wow, drastically different, but open up the hood? Hey, they're pretty close. They're pretty close the same.



So going back to looking at some of the speeds I was talking about; how fast this is happening, that the acceleration phase lasts a .03 seconds, and the ball is accelerated from close to zero miles an hour to over ninety, whatever your high end velocity is, it's happening so fast that to think that you can look at this with the naked eye? That would be like standing on the side of the highway and saying when this car drives by tell me what kind of tires they have, because it's written in about an inch letter of white print, whether it's a Goodyear or a Michelin. So when it drives by at ninety-five miles an hour tell me what tires they have on. You can't do that! That's why when you look at pitching coaches, they're standing five feet behind the pitcher. And you're going to tell me that you can see this? You can't see that. Look how fast it's happening.

It's almost silly to think of the things that we used to do; that I used to do as a pitching coach, and things that we used to say to pitchers, when you look at some of the measurements that we just talked about where the hips are rotating almost three revolutions a second, the upper torso is going almost six revolutions a second, the internal rotation – how fast the shoulder rotates forward? If it was detached from the body and went in full circle it would rotate over twenty revolutions per second.

And to think that we would stand there and say, "Hey, bend your back!"

"Bend your back? I didn't bend my back? I must be really off kilter here!"

So, the absurdity and the myths that go on in pitching... you hear people say all the time, "You gotta push off the rubber."

But when you look at pure measurements, it's pure rotation; you're pushing against the rubber so that you can rotate the hips faster. That's literally what's happening. In the mind's eye of the pitcher, we don't feel that that's what's happening.

There are similar things occurring in golf. That the thought pattern of what you think to have this happen correctly is

inconsistent with the reality of what exactly is happening, because it's just happening so fast.

I'm seeing the forward thinkers in baseball gravitating to this technology. The coaches, GMs and players are recognizing that this kind of biometric analysis gives them a unique advantage.

So not getting measurements is somewhat absurd. Can you imagine saying, "Look, before we sign this guy for a hundred million dollars we gotta get a physical." And they don't take blood, they don't take urine, and they just put a stethoscope on a guy's heart, tap his knee with a little hammer, see if his knee reflexes, and say, "He's good." Who'd you take him to? Dr. Seuss?

Bizball: *Pitching is as much physiological as it is physical. When you take the walk out to the mound in critical game situations, you have a very short amount of time to speak with the pitcher to try and get him through the jam. Is there an underlining premise that you can use to get them out of that critical game? Can you recall any one conference on the mound that stood out more than others?*

**"I say it tongue-in-cheek,
'You're a professional glove
hitter. You get paid to hit
the glove.'"**

Peterson: Number one, you want to get that person back in the moment – back in the present – so obviously, you're not going out there because he just struck out the side. You're going out there because you know he's in some kind of trouble right now, and the game is in jeopardy, and we need to make sure that he gets refocused on really executing his pitch. Because when you really look at what

pitchers do when they're at their best, is they hit the glove. They make pitches. I say it tongue-in-cheek, "You're a professional glove hitter. You get paid to hit the glove." So, when you look at the salaries of pitchers that have pitched in the big leagues for six years or more – the ones that have gone through free agency – they get paid more money than the guy's who miss the glove consistently. You know, it's pretty simple, when you think about it. Plus, most of them have good stuff; I'm not diminishing the stuff. But you have guys with stuff that can win twenty games if they hit the glove, but they consistently miss the target.

So back to the conversation on the mound, you want to get people refocused in the now – in the present – and identify exactly what we need to do to get out of this situation. You know, is this guy gonna take this pitch? Is he going to swing at this pitch aggressively? We can throw a change-up just out of the zone, we'll get a two hopper to the shortstop, ground play double play... You want to create a vision, calm that person down, get that person in that state where your thoughts and feelings and emotions are exactly what they are when he's pitching at his best, and then get him focused on what we need to do to execute this pitch right now to get out of this jam.

And when you talk about memorable trips to the mound, a moment that really sticks out has to be when Jason Isringhausen was pitching for us in Oakland, and we went into Yankee Stadium. It believe it was early September and Barry Zito was winning the game three to two against Roger Clemens. We brought in Izzy in the ninth inning, and the first pitch to Bernie Williams was a homer. And now it's three to three. And the first pitch to David Justice was a homer. So two pitches later – about thirty seconds – we lose. (Laughs.)

And he was, you know, distraught to say the least. It was one of those situations where it affected him. He hadn't closed for a long period of time in his career – I believe it might have been his first full year of closing – and it really had a major impact on him. It really affected him; he felt like he let the team down. He was very de-motivated. Fear, worry and doubt starts to creep in, and he really said, "Look, I need a few days off of this. I need a break."

And so we took six, seven days off. And we had long talks about the mental and emotional behaviors, the behavioral traits that allowed him to be one of the premier closers in the game. And how he needed to stay focused on those

and not the outcome and get back in the process. So finally, he was ready to go back in there. He came to me after about seven days and said, "Look, I'm ready to do this. I want my job back."

So I talked to Art Howe, who was the manager at the time and Izzy went back in to the closer role, and got -- he probably got the last five or six saves of the year that September to close out the season.

So here we are at the opening day of the playoffs in Yankee Stadium. And we're winning by two runs and we bring in Izzy. And Izzy's got to go to David Justice and Bernie Williams. So he gets a guy on base and gets an out. And Jason Giambi ran over to talk to him, just off the mound. I look at the conversation and I turn to Art and say, "Can I go out to the mound?"

He goes, "Yeah, sure, go out there."

So I go out and put my hand on his shoulder and I could just feel his whole body literally shaking. And I said, "Izzy, are you okay?"

He goes, "Rick, I can't feel my legs."

And I said, "Well, the good news is, we don't need a field goal." Giambi laughed and Izzy at least chuckled, and smiled, and -- you know, it was a bit of relief and he took a breath!

And I said, "Look, you know we're gonna get out of this. We can throw a back door curve ball, we can throw a cutter here, we can throw a fast ball down and away" -- you know, we went through pitches we could execute that are gonna get us out of that jam.

That's why when I go out to the mound I typically put my hand on a guy's shoulder. Because you get a temperature of where that guy is emotionally. You can get a sense of if he's calm, you know, relaxed. I mean, you can often see it in his eyes as well, but especially for younger pitchers, you get a real sense of their temperature just by putting your hand on their shoulder. And sure enough he closed out the game and got a save.

But sometimes when you get on the mound you never really know who's out there when you get there. And our job as a pitching coach is to calm that person down and to get that person refocused to execute pitches.

Bizball: *You have worked in two very different baseball markets in Oakland and New York. Barry Zito talked about there being a physiological difference between the "blue collar" surroundings of Oakland and the white collar surroundings once he went to San Francisco. Was there a discernible difference in how you had to approach the staff in New York compared to Oakland given the differences in media focus and the Mets fan base?*

Peterson: Well, I think more than anything else you spend a lot more time talking about your thoughts and feelings and emotions, and how to keep them in check, and how to keep yourself isolated from so many negative comments.

The best way I could phrase this, in Oakland, in these kind of markets you play 162 games in a season, in New York you play 162 seasons in a year. And every game is a season. And it's absolutely incredible. But it's one of the (obviously) media capitals of the world, and it's just the nature of how they sell papers, it's the nature of the media. Everything is the nature, you know -- you win a game, and it's all right, you clinched the playoffs. You lose a game and it's like, you know we have no chance.

Even if you look at, the media as it pertains to football, talk about Tom Coughlin and Eli Manning. This same time last year, they would have hung them both in Time's Square and enjoyed it. And now they're folk heroes in New



York. And in New York, you know sometimes you need some time to work through some of this, and it's so critical that a team stays together in New York because you know the media is constantly trying to divide that team. The division of a team in New York can happen very quickly because there's so many things that are constantly said in the press.

There are a lot of things that become myths in New York because they are great stories and people react to those. You know, to think about some of the things like, as if a couple players in the clubhouse had something to do with a major trade is absurd, it's totally absurd. None of those guys had anything to do with these certain things that happened, you know? For whatever reason people hang on to some of those things, and there's just no truth to them.

So I think that a player in New York and especially – and I'll say this, a lot of players in Oakland probably could go to a lot of places all around the Bay Area, when I say places I'm talking about out socially, and people would never recognize them with the exception of the very top people. In New York, they recognize the bat boy.

Bizball: *Coming back around to the beginning, dollars are going to be tighter for some clubs this year to come by, and therefore, protecting their investment in key pitching talent is going to have more relevancy. Much like the increased prominence of sabermetrics, do you see more clubs using the objective analysis tools coming out of the likes of ASMI in the future?*

Peterson: Absolutely. The forward thinking organizations are moving in this direction. The challenge they have right now is that– the reason more people aren't using this is they're not really sure what it is. And they're not really sure how to use it; because there's not like a place you can go shopping for it and get a better understanding of it. You know I remember twenty years ago when computers first came out and people go, "God, I'll never get a computer!" Now there's hardly anybody without a computer, or a cell phone for that matter.

You know what? Everything that you have, everything that surrounds your entire being, never was even invented when we were kids, when you think about that.

So I think without question once teams have a greater understanding of it, and once teams start to adopt it they will see great results. Teams that are not using this are going to fall way behind, without question.

And I really believe that the amateur market is going to drive this as well. We had a phone conversation this morning with a facility that is in the Midwest, and they want us to come up and set up the lab, and not only that, they said, we have about twenty professional pitchers here that want to come in and get this analysis. We might have forty guys that want to come in on a weekend to get an analysis, because these people understand it, without question. And they're the ones reaching out to us because they've found out that this is what we do in the amateur market.

Bizball: *Lastly, there have been some incredible pitchers that have passed through the history of baseball. Who are some that you would have loved to work with, if you had been given the opportunity?*

Peterson: Well, anybody I would mention, I would probably be in the dugout doing golf claps for them (laughs). And I wouldn't be going out to the mound very often. But I think of the Nolan Ryans of the world, the Tom Seavers, even going back to Johnny Sain and Warren Spahn. I could go on and on. Sandy Koufax and the year Bob Gibson had. I can not even – I don't think anybody that really understands or has a passion for pitching can even understand 260 plus innings, a 1.12 ERA. You look at that and say, there must be some typo there, you know? There's no way that this could have possibly happened.

"I see the winning organizations using more powerful technology to improve the team's performance. One of those technologies is the biometric analysis for pitchers."

I grew up in a baseball family. I was on the field when I was two years old, around Roberto Clemente and Vernon Law and Bob Friend and Bob Veale and Bill Mazerowski, I could go on and on of all those names of the Pirates that back in that day when they won the 1960 World Series. I was in spring training every year around all of those guys.

I just think that the pitcher is probably the most dominant person in all of team sports, without question. He can impact that game probably at a greater level than anybody. And I think when you look at the uniqueness of our game and the advancement of conditioning coaches and sports psychology, one of the reasons why our game has been slow to change is because it is built on long standing traditions. For example, baseball is the only sport where the coaches and the managers wear the uniform of a player. You don't see Tom Coughlin on the field with a football uniform on, (laughs) I mean that would be silly. Or, Phil Jackson with a basketball uniform on. As a coach, and you think about a pitching coach, it's the only coach in all of sports that calls time out and runs out onto the middle of the field and talks to one of the performers on the field. While some of the long standing traditions make our game so great, I see a trend of new traditions and approaches. I see the winning organizations using more powerful technology to improve the team's performance. One of those technologies is the biometric analysis for pitchers. Simply stated, it helps reduce injury and improves pitching performance.

-
- Interview conducted by Maury Brown on Tuesday, November 11 – www.bizofbaseball.com
 - Extra special thanks to Kurt Stallings for his transcribing the interview