## Underperforming as a Pitcher? The Texas Baseball Ranch<sub>®</sub> Explains Where to Look Part II

When a pitcher is underperforming, parents, coaches and/or the athlete himself desperately want to know the reason. Sometimes the answer is relatively simple, while other times it can be extremely complex. At the Texas Baseball Ranch, we have identified 10 critical places to look for the possible constraint(s) or limitation(s) in a pitcher's performance.

In Part II we will look at the second 5. #'s 1-5 were covered in the previous issue.

- #1. Pain/Discomfort (0-10)
- #2. Recovery/Ability to Bounce Back (0-10)
- #3. Physical Structure, Asymmetries and Strength Imbalances (0-10)
- #4. Mobility/Flexibility (0-10)
- #5. Strength/Stability (0-10)

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- #6. Throwing Foundation (0-10)
- #7. Steepness of the Throwing Ramp-Up (0-10)
- #8. Mechanical Efficiency (0-10)
- #9. Mental/Emotional (0-10)
- #10. Internal Systemic: Sleep- Nutrition- Hydration (0-10)

<u>Throwing Foundation</u>: If we were preparing a young man to run a competitive marathon, to swim the English Channel or for a Cross Fit regional competition, how would we go about the process?

Let's begin with agreeing upon what we should NOT do. We should not take 3 months off from all training 4-5 months prior to the event, then slowly *begin* our activity 2-6 weeks prior to the event. Common sense would tell us that it will take longer than 6 weeks to prepare an appropriate physical foundation for the intense demands the

**event requires**. Ideally, we would start 4-6 MONTHS prior to the event, cycle in daily/weekly/monthly intervals (heavy, medium and light work days) to allow for both incremental stress increases along with necessary recovery between bouts of training.

Building a foundation for competitive throwing athletes follows the exact same principles. Remember, for every week we stop all throwing entirely, it will take our soft tissue at least 1.5 weeks to get back to the state they were in when we ceased all throwing.

In essence... "If you don't use it... you start to lose it."

A young elite athlete taking 3 months completely off throwing of any kind... and then ramping himself into game shape in 4-6 weeks? How does this make any sense at all?

Rest is indeed part of the recovery process, but only a small part. Rest is certainly not the same thing as recovery. Too much rest can in fact create **atrophy**, which is exactly the opposite of the training effect we are attempting to create.

At least 5 important realities lie before us in developing our throwing foundation:

- 1. Obviously all "rest" or "down time" is not equal.
- 2. Obviously all "throwing" is not equal.
- 3. Obviously "the current state of soft tissue" in each athlete is not equal.
- 4. Obviously yearly "workloads" of the throwing athletes are not equal.
- 5. Obviously the "competitive status" of each athlete is not equal.

One thing is certain however: Soft tissue development always lags behind muscle/strength development. To have your soft tissue become robust and durable, specifically for the demands required by the specific activity, TAKES TIME.

Time and intention + repetition are the quintessential infrastructure of building a solid throwing foundation.

Building a "solid throwing foundation" is not just a politically correct idea. The harsh reality is that the lack of a throwing foundation can be, and often is, at the epicenter of underperformance. In other words, the soft tissue of the arm is simply underprepared for the demands being placed upon it.

So many conflicting voices and websites claiming expertise on the issue of pitching tend to confuse the average mom, dad and coach out there. My advice, whenever in doubt

defer to your own common sense. No one can be truly prepared for intense game time throwing without first building up a foundation to do so. And that foundation can only be created by... wait for it... throwing.

<u>Steepness of the Throwing Ramp Up</u>: The most telling evidence of the critical importance of the "ramp up" is the fact that by far the most common months for ulnar collateral injury and the need for reconstruction surgery (a.k.a. known as Tommy John surgery) for professional pitchers is March and April. On the other hand, the most infrequent months for TJ injury are September and October.

If workload and sheer volume were the primary contributors to injury, then the results would be flipped... March and April, where the pitchers are just beginning to pitch in their season, would be the lowest and the months of September and October, where the pitchers have accumulated the largest volume of throws from the long and grinding season, would be the highest.

But the truth is that the exact opposite is true, cementing to us that much of what the traditional and conventional baseball universe "believes to be true" is indeed flawed at best. The steepness of the ramp up matters. In fact, it matters a great deal and is an incredibly important variable in arm health and performance.

We define a "ramp up" as the period where the athlete transitions from a period of rest or inactivity to completing full effort throws in a competitive setting.

The "steepness" of the ramp up refers to the length of that transition period. The shorter the time between the beginning of your throwing process and actually pitching full speed in a game, the steeper we consider that ramp up. History and physiology tell us that a transition less than 8 weeks is contraindicated. A transition less than 6 weeks would be inadvisable. A transition less than 4 weeks would be precarious. A transition of 2 weeks or less would be simply dangerous.

At the Texas Baseball Ranch, we advocate a long, gradual and cyclical ramp-up of 8-12 weeks prior to full effort throws in game like conditions.

<u>Mechanical Efficiency</u>: It seems that everyone in the baseball world constantly talks about "mechanics" and "pitch counts". Sometimes it is helpful to better understand a topic by looking outside of our specific universe and seeing logic applied in a similar but divergent situation.

In 2005, I watched a sports medicine TV program about an orthopedic doctor who specializes in treating injuries to world class elite long-distance running athletes. His comments regarding injuries in this very specific population of athletes really resonated with me.

He basically said that many doctors treat the injuries to elite long-distance runners from a faulty paradigm. This was the gist of his comments:

Of course world class distance runners have incredibly high workloads, that's the very reason why they are world class, so if your instinct is to treat the injury primarily or exclusively by the simple reduction of their workload, you will be of little practical use to your athletes. They run, that's what they do. They run a great deal and that's why they are elite.

Instead he urged the doctors to look deeper and closer, and not be so plastic in their perspective. Elite long-distance runners are far from normal. Therefore, he concluded a conventional approach to injury reduction for the general population will not typically be beneficial to the elite long-distance runner.

If, he argued, the elite runner has an inefficiency in his running form or their shoes do not fully support their feet, under any considerable workloads, of course injury is eventually going to often be the result. Therefore, he proposed, in many cases the workload was only a symptom or an ancillary contributor to injury and not the cause itself.

For example, if a runner actually ran on the outside of his/her feet, would managing his/her workload be a sufficient solution? The obvious answer is absolutely not. Reducing his/her workload may delay the final breakdown but would do NOTHING toward a solution. The only solution would be to improve the efficiency in which he/she runs.

That made absolute perfect sense to me. Applying this orthopod's logic to throwing athletes, it became obvious to us at the Ranch that mechanical efficiency also really matters when it comes to deciding who was approved to take part in our velocity enhancement programs. Over the past 12 years we have identified 12 primary movement pattern disconnections that have the potential to add stress to soft tissue.

So, when we initially assess athletes and find a significant level of one or more of the 12 disconnections, coupled with arm pain or difficulty recovering from throwing sessions, that indicates to us that we must first reduce the disconnection, reduce the discomfort of the arm and increase their ability to recover and bounce back before we throw them into a velocity enhancement program.

To us at the Ranch, this simply is common sense. If I have some arm discomfort on a regular basis currently and NOW I'm going to really ramp up the stress, load and intensity, why should I be surprised when injury or shut down is the result?

Bottom line, mechanical efficiency is an essential element in our evaluation and the subsequent hyper-personalized throwing blueprint we give each of our clients.

<u>Mental/Emotional</u>: Everyone talks about confidence and mental tenacity, but so few actually work on the mental side of the ledger. The late, great sports psychologist, Ken

Ravizza constantly related mental game development to the same as any other type of physical or intellectual development. It takes time, intention and purposeful repetition.

I recommend that every athlete, coach and parent who wants to improve their mental game, begin with the book, "Heads Up Baseball 2.0".

<u>Internal Systemic: Sleep- Nutrition- Hydration</u>: Simply put, one cannot ever be at their competitive best when they are exhausted, operating with inferior fuel and/or dehydrated. High performance starts here. All the other 9 contributors to underperformance can only be addressed and enhanced if #10 is solid and functioning at optimum levels.

Finally, look at these 5 categories and give each a ranking of 0-10. Scoring a 10 would mean that, in your opinion for this category, the specific athlete in question is world class in this regard and it represents absolutely no limitation or constraint what-so-ever to his performance. A score of 0 would mean that this category represents a total and complete obstacle in the athlete's development. Obviously, we write the description to avoid the extreme ratings of 0 or 10 and force the evaluation to be deliberate and nuanced.

From these initial rankings you can proceed to prioritize your work going forward. In a world filled with one-size-fits-all programing, such personalized assessments and distinctions can be a tremendous benefit in managing your efforts and maximizing your return on training time (ROTT).



For more information on the Texas Baseball Ranch and the various training programs offered, visit www.TexasBaseballRanch.com, call (936) 588-6762 or email: info@TexasBaseballRanch.com