

## **What Are we in the High Performance Program Looking for in National-Level Volleyball Athletes?**

### **- Collin Powers, USA Volleyball Manager of High Performance Program**

Listed below is a general discussion of the characteristics we in the High Performance Program are looking for (and hope to develop) in National Level Volleyball Athletes. These characterizations are not an exact science and their application may mean different things to different age groups, types of players and positions.

**1) Athleticism**- The best volleyball athletes are “dynamic.” This is a word we use to describe athletes who have a mix of core strength, quickness, flexibility and power that allows them to play the game with speed and control. Dynamic players usually have strong quadriceps muscles and are very flexible in the hips and groin. They can move among their various responsibilities on the court very quickly, even in a low, “athletic position.” They also can effectively/efficiently use their torso and arms in their jump, attack and other skills. They play as well in the air as they do on the floor.

Quickness and speed are composed of a number of physical components that can be developed and improved if an athlete is willing to train very hard in the practice gym and in the weight room. Another important component of quickness is the trained “reading” of the play and the knowledge of what to do in response to the things that you read. This ability mostly comes from playing the game and understanding system-specific, and position-specific, responsibilities on the court.

Part of being able to move fast is an understanding of balance, body control and the ability to stop quickly. An athlete can only move as quickly as he/she can stop, and perform a skill when the ball arrives. Top coaches like athletes who are fast jumpers and fast reactors. However, even if you aren't naturally a "fast-twitch" athlete, you can achieve the "stability component of speed" by having strong quadriceps muscles and core muscles (abs and lower back), flexible hips and groin, and supple ankles/feet.

You can test yourself on balance/speed very easily. Stand in a ready, athletic position and imagine yourself in the center of a 10-12 feet diameter clock that is laid out on the ground. Your partner will call out random numbers from 1-12, and you will immediately make a 2, 3 or even 4 step move (approximately 5 or 6 feet) to that position on the clock ending up in a ready, athletic position able to play the ball. In which directions are you the slowest? Do your feet get tangled up in any directions? Can you effectively regain body position whenever your move includes a crossover step? Does your center of gravity go up and down during the 3-4 steps, or do you maintain a straight line with balance? What are your arms doing? Are any problems that you encounter due to your original foot position/balance, or are they a result of an inefficient first step?

Please see below #4 Confidence and Leadership and #7 Vision, because these are key elements of improving your quickness and your response to things that occur on the volleyball court. To become more athletic and dynamic, you have to force yourself to

step out of your “comfort zone” and see/respond confidently, dynamically and efficiently. Think of every skill originating in your center of gravity and power – your hips.

**2) Technique** – For young athletes, coaches aren’t as concerned about whether you execute a play perfectly every time. They are more concerned about whether you have any major flaws in your technique that will limit the rate, and top end, of your development as a volleyball player.

If your technique is sound, you will improve at a higher rate, given the same number of training hours, as someone whose technique is biomechanically inefficient. For example, if you have an efficient and effective armswing, every gain that you make in the area of strength and conditioning will translate into more power in your attack. Most importantly, however, for the majority of skills an improper technique will limit the top end of how good you can become at that skill. In most cases, these limits do not manifest themselves until you play at the highest levels and have to perform against other top players.

This concern is most important with passing platform and arm swing. With regards to passing, we like to see stable arms, with supple shoulders. This is not an easy thing to achieve, because at the same time you have to have the flexibility to react to a moving float serve and the strength to manage a high-speed spike. And for both of these, you need to be able to control the ball for an instant and to then put it where it needs to go.

One thing we like to see is athletes who can track the trajectory of the ball very early and who can continue to track it as they move quickly and efficiently to that location on the court – while at the appropriate time preparing their platform for the pass. You don’t want to get your platform ready too early, because that makes it difficult to move quickly to the ball; but you must have it ready early enough so that pass does not end up as the end of a jabbing motion at the ball.

The arm swing technique is one of the most important factors in determining whether a player can reach the National Level. Any player who wants to be an elite volleyball athlete should work on strengthening and stretching their shoulder, and developing an efficient and powerful arm swing.

One key issue relating to an athlete’s armswing is his or her ability to transition their arm(s) quickly/efficiently from their role in assisting the jump to the role of executing the attack. A second key issue is the ability to generate arm speed power for the spike at a high arm position, at the peak of the jump. These two issues are closely related, and they also are both largely a result of a player’s shoulder flexibility, core strength and upper back strength. During the approach and attack, athletes should focus more on the roles and positions of their elbows and hips (using their torso turn in the air to add power and to maintain a higher snap point), rather than on their shoulders.

The great hitters extend their hitting shoulder higher than the other shoulder just before, and during, the time of contact. This puts less strain on the shoulder, allows you to hit the ball at a higher point and involves the strong pectoral muscles in the spike. They then

follow through with a snap-down motion from the elbow, rotating the shoulder forward to maintain longer contact with the ball to transfer greater power (this takes practice).

**3) Strength** - Size is important, but a lot of people think that we are only looking for big, tall players for our National Programs. That is not true, because the key thing is not how big you are ... it's how big you play. One of the top-rated players on the 2001 and 2002 Womens Junior National Teams (and not a libero) is approximately 5' 7". This athlete is very strong and she plays big. In the Boys Youth National Team Second Tryout held in Los Angeles during Memorial Day Weekend, 2002, two of the top-rated players were 5'8' and 5'10."

Any great volleyball coach will tell you that the strength of your core is a determining factor in how quickly, efficiently and powerfully you will be able to perform any volleyball skill. The core muscles, including the abs, lower back and hips, should be the center of attention for any volleyball athlete's training routine. Any qualified trainer, or even a search on the internet, can help you to find helpful core exercises that will lead to improvements in all aspects of your game.

One of the most important areas of strength that deserves continual attention is the upper back. Again, you "can only go as fast as you can stop" (assuming you plan to "go" more than once). Therefore, your speed of armswing is limited by the strength of your upper back and the ability of these muscles to cushion/brake the speed of the attacking arm. If you don't have strong traps and rhomboids, you will likely end up with an injured shoulder at some point in your volleyball career.

An athlete's dynamic power in the hips (and, as should be mentioned here, their flexibility throughout the core area) can compensate for size. A major goal of every young volleyball player should be to master the "squat" lift to a level appropriate to their physical development, and then progress (cautiously – only after recommendation and oversight from a qualified trainer) to the Olympic Lifts (jerks, snatches and cleans). At this point, an athlete is ready to combine base strength with dynamic hip explosion to achieve the best vertical jump that their frame will allow.

**4) Confidence and leadership** - It is not surprising that the best athletes demonstrate confidence and leadership on the court, and make the players around them better. The question is: "Which comes first, being a good player or being confident in your abilities?" I think that the answer to this question is a balance between the two. As a player, you may have to begin acting confident and aggressive on the court first, and your skills and game will usually follow. At tryouts, our eyes are caught by players who take charge.

**5) Aggressiveness** - following from #4, aggressive play is something that all good coaches look for. At the younger groups, we would rather see a highly aggressive and athletic player hit five great kills and five balls into the bleachers than ten "get the ball overs." Roll shots and tips are important things to learn, but even they can be done aggressively and confidently.

**6) Ability to learn and improve** – At the National level, and even for most college programs, the rate at which a player can adapt and improve within a tryout, or training environment, is very important (even if these changes are subtle during a 3-hour tryout). For our USAV National programs, this is critical because we are only able to train our athletes with our top coaches for about 2% - 4% of a given year; so we need to know that you can adapt to our National Team systems and quickly reach your potential when placed in an elite training environment.

Our tryout coaches track players' progress throughout the course of a tryout to determine whether you adapt. This may be your first chance at playing with such a high level of competition; and we want to see how you react. Part of this comes from how open you are to change (the ability to step outside of your "comfort zone") and part of this is determined by #4 and #5 above. The more confident and aggressive you are, the more you will find yourself adapting to the demands of higher levels of play. This definitely is something that athletes can work on whenever they are on the court.

During the tryout, make sure you learn and adapt in response to playing with new players. Don't just leave it up to your physical abilities – the best volleyball players are as mentally tired as they are physically tired after an important tryout or match.

**7) Vision and reaction** - Volleyball is such an interesting game because every play is different and it happens so fast. Therefore, a volleyball player can't be trained specifically how to react to every play. Rather, they have to be able to observe and creatively respond to each new situation. A lot of this just comes from playing the game as much as possible; however, you can train yourself to be more observant and to look for more subtle cues that you will begin to pick up (for example, when a hitter will tip a ball, or when a server will serve a short serve, etc.). This is called "playing the game in the future" because you begin to look for smaller cues and "reads" that an opponent will give away before she even knows it.

### **Important Position-Specific Elements**

- With regards to specific positions, we are looking for outside hitters who can pass a good portion of the court and then terminate an outside set. We like our outside hitters to have great vision, a fast/explosive approach and a "live arm."
- We are looking for setters who can jump set and who have great body control and speed, even when the passes are all over the court. We also want our setters to have strong, supple wrists/hands that can control the ball for an instant, and then execute a quick, fluid release. We want them to be calm, confident and smart.
- We are looking for middle blockers who are trained to read (excellent vision), react and move very quickly in response to the opponent's setter and offense, and who can reach over the net and stuff 'em. Quickness and aggressive are determining factors (also a good mix of discipline and creativity).
- We are looking for all types of hitters who have more than just one or two standard shots (they can score against different kinds of blocks and in a number of different situations).

- We are looking for liberos who can pass all types of serves and who can defend the ball in front of them and to the side of them very effectively, using their hips to get behind and underneath every ball.
- In general, we are looking for players who can control the volleyball, while passing, defending, setting, serving and attacking.

As a final note, we are looking for players who naturally enjoy the rigors and challenges of high-level training. We find that the best athletes just naturally find it very rewarding to give everything they have, working with their teammates, to become great at their sport. For these athletes, one of their definitions of “fun” is to succeed at a high level and to put in the work necessary to get them there. Those are the kinds of athletes who will continue to love the game for a long time and who will put in the kind of work necessary to reach the highest level. Is that something you can begin to change? Maybe.