

Height budget for Bball

By E. Timothy O'Brien, PhD

Basketball is a great game. The men's and women's players have dazzling speed and gamesmanship, offering great enjoyment to all ages to watch and be amazed. But to play, it's an exclusive club. All because of a really dumb rule. Or rather, because a really important rule has been left out.

As a parent of a prospective player, or a kid that wants to keep his or her brain intact into middle age, there is a lot to be said for learning to play basketball. Teamwork, body control, mind control, great exercise, learning to be assertive while limiting personal aggression. All things worth developing in youth and great life lessons. Stand your ground but don't foul, keep your attention on your shot, etc. This while incurring very limited damage to your daughter or son's body and with few concussions that can damage growing brains. Too bad only a select few can play. Might as well play soccer, or lacross, or swim, or do e-sports. Those are great games too, but – what if you wanted to play Bball, and you had no other encumbrance, but just had parents that were short?

I'm an average guy. Really. Maybe not in looks (there I'm off the charts), but in height. I'm just 4 tenths of an inch above the average height for adult men in the US of 5' 9.1." Why do I bring that up? Because I love basketball, but I and more than 90% of us of "average height," or shorter can't play. That is, we can play, but not for the best teams, the best coaches. Not in the NBA, Division I college, or even in most high schools. Let me explain. Its not that many of us aren't as good. We can't even get in the door. Why? Because average height, or even above average height is not "good enough" to even try. Not athleticism, not speed, not smarts. Things have developed in such a way that you must be unusually tall to even have a chance. Basketball is a great game, but it needs a little something. It needs the other 90% of us.

Basketball was invented in America. It's our sport. With basketball you can run all over, you jump, you stand your ground to protect your space. It's a great workout and lots of fun. Everyone gets to pass, dribble, shoot and defend. No 8 3/4 innings of standing around for the ball to come your way. And unlike soccer, you even get to use good old American hand-eye coordination to dribble and shoot. One hundred ten years ago, a guy in Boston thought up a way to keep the guys at the Y busy during the winter. James Naismith wrote down a few rules about the points you'd get if the ball went through a basket nailed 10 feet up on a wall, and the game evolved from there. He thought he'd hung the basket high enough so basically everyone would have to aim a little to make one. He didn't quite envision the slam dunk. Or mostly 7 footers and the NBA at the time.

Did Dr. Naismith get it perfect at the start? Some might say yes: a few sparse rules, and let the boys have at it. But the original rules neglected a few minor points, like what we now call "the dribble." The NBA and NCAA rule book of today are quite involved and detailed, so we haven't exactly been reticent to make changes when we thought they were needed. What is the illegal defense, anyway? Just how far is the 3 point line this year? Why is the women's ball 28.5 inches instead of 30? Why the possession arrow instead of jump ball?

The rules Dr. Naismith jotted down a century ago reflected many of the values we cherish as Americans. Speed, creativity, coordination and teamwork enhance the chances of winning. Smarts. Not just book smarts, but active, decision making smarts. Gamesmanship. Knowing the game. Knowing what each person on your team can and can't do. Knowing the

opponent. The rules also reflected the American spirit in what kinds of play they restrain. The concept of fouls, perhaps borrowed from soccer, helped to keep aggression in check. In modern basketball, overt confrontation between opposing players is strongly penalized, and even the coaches must "stay in the box" or be Tee'd up. We Americans like to "stick up for the little guy." We don't like to see little guys bullied. With the exception of the fans of theatrical "wrestling," or (heavily padded) Hockey, part of Bball's attraction to players and parents of players is that the rules encourage lots of physical action with a minimum of violence. Sure you get hit now and then, but it usually really is inadvertent. With no pads, everyone is in the same boat. Even playing in the neighborhood, the bruises come with "sorry man, you all right?" and you get the ball out of bounds. Conditioning, teamwork, excitement, hand-eye coordination, with few injuries. It's great for players of all ages. And sexes. The rules of basketball have encouraged women and girls to play as well. The game teaches being assertive without being violent. It demonstrates the fun of being in shape and using your body creatively to support your team. Speed and smoothness. Fun to watch and to play.

Basketball, one of the world's best sports, but if you want to play in middle school, high school, college or the NBA, one has to be tall. Not just tall, but extraordinarily tall.

Height is largely genetic. If your parents are average or short, you probably will be too. If you are, your kids will probably be too. So if they or you aren't very tall, this great game is literally out of reach. You can watch the big boys or girls play. How American is that? Do we hire others to fight for us? Do we want ourselves or our kids to sit on our backsides and watch others play? Have we not integrated sports in many other ways? Could we exclude people from playing for any other arbitrary physical trait over which we they no control? Eye color? Foot size? Skin color?

Since height is "normally distributed" one can easily calculate the approximate percent of the population expected to be at or above a particular height. So, how do we define tall? If you asked how many men from the adult population of the USA you'd need to measure to find a man 6 feet tall, it would require, on average, about 5. 1 in 5, or about 20% of men are 6' or taller these days. Not so rare you say? True. But consider for a minute. How many players in the NBA are under 6' tall? At last count I believe the answer is very close to zero. Zipp. Nada. 80% percent of college age boys/men can not even dream of playing in the NBA, or even premium college ball, even as the shortest player, the speedy, creative, point ("1") guard.

How about a very short shooting ("2") guard? 6'2" might be a minimum height for a 2-guard in college or the NBA. In the US, out of a random 100 men, only 4-5 would be 6' 2" or taller. This means that 96 out of every one hundred would be too short to hit the open jumper from 12' to win the Final Four!

6' 5"? Now kind of a standard for even point guards. Somewhere between 1 in 500 and 1 in 900. Getting to be pretty rare, indeed. It would take a thousand men to find one at 6' 5 3/4."

Michael Jordan, at 6' 6," is probably one in ten million in terms of talent, but in terms of height, he is truly 1 in a thousand. Only one man in more than 5000 is over 6' 7." And the

rarity increases very rapidly from there. A seven footer is too rare to easily calculate, but is probably 1 out of hundreds of thousands to a million!

It is similar for women. One in 1000 is expected to be 6 feet tall; one in 5000 6'1." And that is before one considers whether they can run, or shoot, or bang down low with the big guys. Why do coaches scour the world for a true big man like the Spurs Victor Wembanyama to play center? Because they are so rare! (At 7'4" he is truly one in several million!)

Who can blame a coach for using the rules to his best advantage? Livelihoods are at stake. Dean Domes, Final Fours, NBA Championships. Winning is important, and the rules don't specify how tall any player can be. So they have indulged in an arms race. (I'll resist the temptation to call it a leg race). They have to acquire what in any other age would have been called giants. If coach X has a 7 footer, I need a seven footer. The above average guy? Forget it. The short guy? You've got to be kidding! 6' 10" and can run? I'll try him out. 7 feet tall and can jump? He's on the team. And, like Dr. Suess' Oncle wanting to "bigger" everything beyond reason, they search harder and harder to find taller and taller players. Or like Suess' Gertrude McFuzz, the bird that always wanted more tail feathers, if one amazingly tall guy is OK, why not have 5 on the floor at once? What will Bball look like in 20 years for heaven's sake? *Everyone* over 7 feet? Is that what we want? Isn't that a little extreme?

Basketball is a great game, but it needs one additional rule. One in keeping with the spirit of the game. One that does not intrude unreasonably into the naturalness of a game, or the ease of constructing a team. Let *everybody* play! Don't keep the tall guys out, but let's spread things out a little. Let everyone in on the action.

What kind of rule do I think would be least obtrusive and yet make things more fair?

How about this one: **Take the average height for that age group or gender, multiply by the number of players on the floor at one time, and let that set a "height budget" for that league.**

Budgets. We all have to live with them. When can we afford the new car, the vacation, the college education, our groceries? We have brilliant coaches, couldn't they learn to live within a height budget that was uniform within their league?

At first, because of the escalation of heights that has taken place in basketball at every level, the budget could be phased in. A team that plays 5 players with an average height of 6'8" is using a height budget of $(6'8" = 112; \times 5 =) 560$ total inches! Whereas the average height of adult men in the US is $\sim 5'9.5"$. That would suggest a total height budget of $(5'9.5" = 69.5"; \times 5 = 347$ (call it 350) total inches allowed to play at one time. This is an astounding 210 inches over an eventual height budget!

So it might have to be phased in gradually indeed.

Perhaps "mixed height" leagues could be started to see better how it would work in practice. How to sub in players of slightly different heights and keep under budget. In this computers would be a big help. But it could be done.

Basketball is a great game, and I realize this would be a seismic change. But the benefits to school children growing up that realize that they COULD play. Learning to maximize the skills they have, at any height. Seeing how much fun it is to see very tall players playing with short (but amazingly fast!) or average size players. Watching how our coaches adapt and figure out which combinations work best in which situations, would be fascinating indeed.

Maybe there are better solutions. I tried height categories but there a practical flaws in wanting to maximize the heights within each category. But maybe there are others. But this is too important to our American sport to let the unnecessary escalation in player height at every position continue. Let's let everyone have a change to play!