

Should Major League Baseball Players Who Used Performance Enhancing Drugs Be Allowed in the Hall of Fame?

Yogi Berra famously said “Baseball is 90 percent mental. The other half is physical.” But when you put steroids into the equation, it throws the numbers off. There are over 74 performance enhancing substances on the list of prohibited substances in Major League Baseball (MLB)¹. Nevertheless, players still use these substances. In 2002 The Major League Baseball Joint Drug Prevention and Treatment Program was agreed to. This introduced a list of banned substances, mandatory random drug tests, and the penalties for a positive test. Some of the most popular performance enhancing drugs that have been used are human growth hormone (HGH), testosterone, androstenedione, and stanozolol. The players took these drugs in an effort to increase lean body mass, muscle mass and strength.² Using these substances in combination with resistance exercise leads to an even greater increase in lean body mass, muscle mass, and strength.² These effects have increased the performance of many baseball players. This includes some of the greatest players of all time. Over the last decade, players who have used performance enhancing drugs (PEDs) became eligible to be on the ballot for the National Baseball Hall of Fame (NBHOF). Despite increased performance, players who are known to have taken PEDs have not been voted into the NBHOF. After thorough investigation, I have concluded that only three players who have used PEDs should be inducted into the Hall of Fame. Those three players are Barry Bonds, Roger Clemens, and Alex Rodriguez. Each player who is inducted into the NBHOF receives a plaque with an image of the player, the teams they played for and a brief summary of their career achievements. If these players were to be inducted, the description on their plaque must include a description of their controversial use of steroids and the controversy they caused.

Steroids may have been around Major League Baseball for years before the steroid era began, but they first became popular after Jose Canseco used them when he joined the Oakland Athletics as a rookie in 1985.³ By 2002, multiple coaches and former players had estimated that one point at least thirty percent of the players had been using anabolic steroids.³ It has been proven that PEDs increase overall strength. However, there are many different factors that contribute to a hitter being successful. The distance from every pitcher's mound to home plate is sixty feet and six inches. MLB pitchers are throwing faster than ever, many even touching triple digits. The batter has a fraction of a second to decide whether to swing the bat from when the ball leaves the pitcher's hand. The baseball has a diameter of about three inches and can become blur as it moves into the hitter's vision. There is a lot more to hitting than physical strength. It is like Ted Williams said, "The hardest thing to do in baseball is hit a round ball with a round bat squarely." Pitchers have used PEDs as well. This may help them to increase pitch velocity, which can be very beneficial. There is a reason why PEDs are called **Performance Enhancing** drugs and are banned.

The ban of steroids began in 1991, though testing was not established until 2003. Players also use HGH which was a popular PED because it is not detectable through urine testing like other steroids.³ Because there was no testing or repercussions for using PEDs until 2003, many players used them in the 1990s. This era became known as the steroid era. Baseball was struggling in 1994, as the Major League Baseball Players Association (MLBPA) went on strike when the teams' owners attempted to install a salary cap. The World Series was cancelled for the first time in 90 years. When baseball returned the following season, fans were not happy with the owners and players. The popularity of the sport decreased rapidly. However, what came to follow was the emergence of players like Mark McGwire and Sammy Sosa. Aided by steroids,

they began to hit homeruns at a record pace. This made the game entertaining again. They gave people a reason to show up at the stadium. McGwire and Sosa spent the summer chasing the illustrious home run record of 61 set by Roger Maris in 1961. Their pursuit of history is credited with restoring fan interest in the sport following the strike. Unfortunately, the commissioner of MLB and the rest of the sport turned against these men when controversy arose over their use of steroids.

There are guidelines for NBHOF voting. For a player to be eligible must be retired from playing for five years, they must have played in ten seasons, and they must not be on the NBHOF ineligible list.⁴ The voters consists of members of the Baseball Writers Association of America (BBWAA), who are elected by the BBWAA Screening Committee. Those elected have a ballot for a three-year term. “The voters are instructed to vote based on a player’s career statistics, playing ability, integrity, sportsmanship, character, and contributions toward his team”⁴. A player must receive seventy-five percent of the vote to be inducted. If they ever receive less than five percent of the vote they are removed from the ballot. They can be on the ballot for up to ten years.

Though the voters are professional writers, they are human beings and therefore have biases as they are most likely baseball enthusiasts. One way to combat a biased opinion of a player’s value is to do a statistical evaluation. Baseball statistics have been collected for decades. These stats include cumulative stats like homeruns and hits, and percentage stats like batting average, and on base percentage. The percentage stats have more validity with a greater sample size. Baseball organizations have always done their best to try to evaluate players better. In an attempt to do so, they have created new stats called sabermetrics. Saber is derived from SABR (Society for American Baseball Research). Sabermetrics try to take all of the data available and

simply do it in a way that makes comparison between players easier. It is difficult to compare the overall contribution of each player to a team. This is because there are different requirements and standards for every position. You would not expect a short stop or catcher to have the same offense production as a designated hitter or first baseman. Some positions require more athleticism and range in the field. The people who play those positions are usually smaller and quicker. The opposite is true for positions on the corners and designated hitters. Overall, what determines who wins a baseball game is who scores more runs. It is valuable to create runs on offense and to prevent runs on defense. One way to determine the value of an individual player is by looking at their Wins Above Replacement (WAR). WAR for a position player includes runs accumulated from batting, baserunning, fielding, and the other value a player may provide throughout a game.⁵ This is compared to the average production of the group of players who would replace them. These stats are adjusted by position, as average defensive and offensive production varies by position. For pitchers, they consider runs allowed, innings pitched, level of opposition, team defense, and park factors (field elevation affects how far a ball travels, and all fields have wall sizes and distances).⁵ In general, the value of 1 WAR is 10 runs.⁵ For context, Aaron Judge who had one of the best years for an individual player ever, accumulated a WAR of 10.6 in 2022 when he was the American League Most Valuable Player.

WAR can help determine who should be inducted into the National Baseball Hall of Fame. WAR has been used to calculate JAWS (Jaffe WAR Score system). JAWS takes the average of a player's career WAR and the WAR he accumulated in his best seven years (not necessarily consecutive years).⁶ This is a statistic with the purpose of measuring a player's NBHOF worthiness.⁶ By comparing the JAWS a player has accumulated with the JAWS of the players in the HOF at the same position, you can determine whether or not that player performed

to a similar standard. This stat allows comparison of players from different decades even though they may have played in very different offensive environments. It tries to eliminate longevity as the sole determinant of worthiness. For context the average JAWS of the 156 position players who have been inducted into the NBHOF before November 27, 2018, is 54.8.⁶ Because players who have used steroids have a performance boost, I have determined that a player who used steroids should have accumulated a JAWS that is at least 33% better than the average of the players in the NBHOF who played the same position. This more than accounts for inflated statistics as a results of using steroids and holds those who used steroids to a much higher standard.

Why Performance Enhancing Drug users should be banned from the Hall of Fame.

There are many reasons why players who have used steroids should not be voted into the NBHOF. The first reason being that steroids and other performance enhancing drugs are prohibited from Major League Baseball and using them is considered cheating. There are over 74 performance enhancing drugs on Major League Baseball's list of banned substances.¹ It is a violation of federal law to use or possess anabolic steroids without a valid physician's prescription.¹ Violating these laws have similar penalties to that of illegal use or possession of narcotics.¹ There are different violations for testing positive for performance enhancing drugs in MLB. The first violation results in an 80-game suspension, the second violation results in a 162 game (full season) suspension with pay suspended for all 183 days of the season and the third violation results in a permanent suspension from Major and Minor League Baseball.¹ Of course a player who is permanently suspended from the league is not eligible to be on the NBHOF ballot. There are mandatory and random tests set forth by MLB. They can also use reasonable cause

testing and follow-up tests. There are rules set in place to discipline players who fail to comply to the testing procedures.¹

Another reason why users of performance enhancing drugs should not be voted into the NBHOF is that it undermines the integrity of the sport. There are many players who did not use steroids. Most of those players practiced and trained for many years. If they voted players who used steroids into the NBHOF it would undermine the achievements of others. Cheaters should not be given the sport's highest honor. Baseball is known as America's past time. It is a family tradition and kids from all around the world learn the sport at a young age. Many of those young people watch the sport on television as well. What kind of message would it send to children if MLB condones illegal drug use? The people who are inducted should be honored for qualities that are redeemable. To honor someone who has cheated to get to that spot is the exact opposite. It would also be a punishment for the players who did not use it. They are put at a major disadvantage on the field. This can make it very hard for the players who don't use steroids to put up similar stats.

If the BBWAA voted in steroid users, it would be an endorsement of steroid use. There are many inherent health risks of steroid use. This endorsement of steroids would be immoral because it may encourage youth athletes to use them. Some of the serious negative side of effects of steroids on the human body include putting the user at risk for psychiatric problems, musculoskeletal injury, cardiovascular damage, liver damage, and considerable changes to their reproductive systems.³ Those who use HGH have an increased risk of cancer, reproductive health harm, cardiac and thyroid problems.³ As well as overgrowth of bone and connective tissue.³ Hormonal changes could have an even more significant effects with adolescent use.³ Steroid abuse has led some kids to suicide. This is a very serious concern.

Between 1988 and 1995 (8 years) the number of players that hit over 40 home runs in a season was 19, the year that had the most was 5 in 1993.⁷ The highest total for a season was 51 by Cecil Fielder.⁷ Then in 1996 there were 17 players with over 40 homeruns.⁷ Between 1996 and 2003, another 8 years, the number of times a player hit over 40 homeruns was 101.⁷ With the most being Barry Bonds with 73 in 2001.⁷ There had only been 2 people in the history of the sport to hit 60 or more homeruns before 1998.⁷ Between 1998 and 2001 it happened six times.⁷ All by three steroid users, Barry Bonds, Sammy Sosa, and Mark McGwire. During the steroid era which can be best defined as 1994-2004, the amount of runs and home runs per game was the highest of any period in the history of the MLB, dating back to 1876. This proves the offensive inflation due to steroid usage.

The prolific Mark McGwire was always a power hitter. He had a massive frame at six foot five-inches tall. However, he was only 215 pounds at the beginning of his career. By the middle of career he was about 250 pounds. To gain that kind of mass in muscle, naturally, would take an extreme amount of commitment to diet, exercise, and many other things. He was allegedly introduced to steroids by Jose Canseco in the beginning of his career. Nevertheless, his statistics tell an interesting story. In the first 777 games of his career he hit 178 homeruns and performed 35 percent better than the league average on offense.⁷ In his next 1000 games after that from 1992-2000, he hit 376 homeruns and performed 88 percent better than the league average on offense.⁷ Another way to look at it is that he averaged 36 homeruns in his first 6 seasons. While in his last 4 he averaged 61. An average equivalent to the MLB homerun record for a single season that was set in 1961. That is a huge spike in production, a little bit suspicious. Obviously, McGwire used steroids, as he admitted to it and androstenedione was found in his

locker in his record setting 1998 season. Steroids have shown to have a great impact on hitting in baseball, but does it do the same for pitching?

There is a lot less pitchers who have allegedly used PEDs or have tested positive for using them. Maybe pitchers are more concerned with mobility, and flexibility. However, velocity is advantageous for pitching, and steroid use would help increase pitch speed. The most notable pitcher to use steroids is Roger Clemens, however, he won five Cy Young Awards and most of his best years were before he started using them. Still, they may have helped him prolong his career and stay fairly effective into his early forties. The pitcher I am going to discuss is Eric Gagne who was the closer for the Dodgers in the height of the steroid era. The first 3 years of his career can be described as below average. In 283 innings he gave up 145 runs, for a 4.61 ERA which was 10% below league average at the time.⁷ He then broke out in 2002, pitching to a 1.97 ERA, 93 percent better than league average.⁷ Over the 3 years from 2002 to 2004, he pitched 82.1 innings each year.⁷ In 247 innings, he only gave up 49 runs, to give him an ERA of 1.79, this was 123% better than league average.⁷ These three seasons can be considers a few of the best years of relief pitching in the history of baseball. Maybe he just figured it out, or steroids really gave him the stuff he needed. Testing began in 2003, and by 2004 Gagne was often injured and performed much worse than he did previously. Maybe injuries and age caught up to him, or he just wasn't the same after he was unable to use steroids. Clearly, steroids provide an advantage. Those who perform well only because they used steroids, should not be honored in the Major League Baseball Hall of Fame.

Why Performance Enhancing Drug users should be voted into the Hall of Fame.

Major League Baseball was founded in the United States in the 1876. It has been a staple of the culture in United States since. The steroid era was more than a decade long and is

important in telling the story of the history of the sport. The National Baseball Hall of Fame is a museum. It tells the story of the players and events that have stood out throughout the history of the MLB. It would be a poor record of the game's history if they left out all steroid users. That does not mean a player should be enshrined just because he used performance enhancing drugs. However, three of the greatest players of all time used steroids. All three of them were on track to be the best of the best. Over two decades of incredible baseball would be misrepresented if those three men are not inducted in Cooperstown. MLB was struggling for attention in the 1990s after the strike almost destroyed the sport in 1994. Fans were not interested in the players and owners debating over money, they just wanted to enjoy watching the game. When baseball returned after the strike fans were not happy. Many people had lost interest and the league suffered. However, these prolific home run hitters like Bonds and McGwire were mashing baseballs at a record pace. It made the game fun and caught the attention of Americans. They tuned into the game every night to watch McGwire and Sosa. They were approaching and surpassed a home run record that stood for over three decades. However, when MLB passed legislation about steroid use and began testing players, they threw those stars under the bus. The ones who saved the game were now the anti-heroes. Steroids were first used in approximately 1985 but were not banned until 1993. The league turned on these players after they banned steroids and MLB used these players as a scapegoat to cover up their mistakes.

Another thing to consider is that it is difficult to determine who used steroids. They were banned in the early 90s, however testing did not start until a decade later. Even then, there was a poor system put in place. One of the most commonly used PEDs was HGH. This substance, which is found naturally in the human body, greatly improves performance when used as a supplement. It also does not show on urine tests. This is one of the many ways detection was

avoided. This makes you question how many people were actually using compared to who got caught. One former player estimated that at least half of the players were using anabolic steroids. This may not be accurate but it begs the question of how widespread usage was. If the majority of the players were using it, why punish only those who were caught?

The argument that steroid users should not be voted into the NBHOF based on integrity is an invalid point. It would not ruin the integrity of the league or the Hall of Fame (HOF). There are many players in the NBHOF who lack redeeming qualities. It would be hypocritical for them to not vote in players for other off the field issues. There are notable racists like Ty Cobb, who had documented altercations with African American people off the field. One of which led to a charge of attempted murder. There are others in the hall who are not the greatest people either. Many who abused alcohol among other substances. There are notable cheaters, sex addicts, tax evaders, drug addicts and womanizers who have been inducted. It is not what you would call a hall of integrity in the slightest. It is hard to determine whether steroid usage is any better or worse than any of these other off the field issues, however holding those players who used steroids to a much higher statistic standard accountants for their unfair advantage. Should off-field issues be considered at all or should it only be about what happens on the field?

There may be a way to compare steroid users to the Hall of Fame standard for non-steroid users. Voters could compare stats like JAWS among others to help them determine this. Remember that JAWS is an average of the value of a player's best seven years and their entire career. For example, Barry Bonds accumulated 117.8 JAWS while playing left field for the majority of his career.⁶ The average JAWS of the twenty left fielders in the Hall of Fame is 53.5.⁶ If you cut Barry Bonds' value in half, it would still be above average for a HOF left fielder. There is more than steroids that made him that great of a player. He was already the best

player in the league and on a trajectory of becoming the best ever when he first started using PEDs. The average JAWS of the 66 starting pitchers in the NBHOF is 61.4.⁶ Roger Clemens accumulated 102.6 JAWS.⁶ He had already pitched for 14 years, pitching 3040 innings, with an earned run average below 3, he won 3 Cy Young Awards, and had an MVP award before he started using PEDs.⁷ He then pitched another 10 years. Steroids may have improved the longevity of his success. Finally, Alex Rodriguez was the first pick in the 1993 draft. He debuted in 1994, and in his first five full seasons, he was the best shortstop to ever play the game. He signed the largest contract in baseball history at the time with a 10 year 252-million-dollar contract with the Rangers. He had sky high expectations and the weight of the world on his shoulders. With all the talent in the world, he did not need to use steroids. I believe that he did not want to fail and he wanted to ensure he kept up with the other best players in the game, many of whom were using steroids. For this reason he gave into peer pressure and joined the other steroid users. He played third base and short stop about the same amount in his career. At shortstop he has the second highest JAWS ever, at 90.8.⁶ That would be the highest JAWs at third base. The average JAWS of the Hall of Famers at those positions is 55.⁶ These three men were among the best players ever before taking steroids and should be considered for induction into the National Baseball Hall of Fame.

Of course other steroid users have been considered for induction into the NBHOF. Some of those players had very decent careers as well. However, when comparing to the HOF standards calculated by JAWS, they are either very close to the average Hall of Famer or below average. With the use of PEDs they should not be voted in even though they performed just as well as those who didn't use PEDs. McGwire, Rafael Palmeiro, and Jason Giambi are notable first baseman who used steroids. The average JAWS of the 24 HOF first basemen is 53.4.⁶ Those

men in the same order accumulated a JAWS value of 52, 55.4, and 46.3.⁶ That is not good enough to my standard for PED users to be elected. Many think that Manny Ramirez should be considered for the HOF. However, the average for HOF left fielders is 53.4, and Manny Ramirez accumulated 54.6.⁶ With steroids he performed barely above average in comparison to left fielders already in the HOF. Why with the aid of steroids, would his career be considered for induction? Robinson Cano at second base, accumulated 58.7 WAR, and he has been suspended twice for testing positive for use of PEDs.⁶ The average JAWS score for HOF second basemen is 57,⁶ so he does not get my consideration. The last person considered is Sammy Sosa, he hit an average of 61 home runs each year between 1998 and 2001.⁷ However, for right fielders in the HOF the average JAWS score of 56.7 is greater than his score of 51.2, so he should not be considered.⁶ In conclusion, after looking at the careers of many players who used steroids, none other than the three previously mentioned performed to a degree that was so much better than the HOF standard for me to consider them for the NBHOF.

Barry Bonds, Roger Clemens, and Alex Rodriguez among other steroid users have already been on the ballot for the National Baseball Hall of Fame. The results of the elections give the indication that no player that has been found guilty of steroid use will be inducted into the NBHOF. When Bonds and Clemens were first eligible, they both received around 36% of the vote.⁷ Each year they gained some votes, and in their last year they both received about 66%.⁷ They could eventually be elected by the Contemporary Baseball Era Players Committee, which votes once every three years. We are yet to see where they stand on this controversial issue. Alex Rodriguez, who used steroids and was suspended on two different occasions received 36% of the vote in his first year.⁷ That same year was Clemens and Bonds second to last year on the ballot. It looks like he may follow the same trend unless certain voters have a change of heart.

The National Baseball Hall of Fame is a record of all of baseball history, this includes the good, the bad, and the ugly. Steroids played an important role in baseball for more than a decade. These players were some of the most entertaining and exciting players to ever play the game and saved the game when it was needed most. I have concluded that there are three players who used steroids that should be elected, Bonds, Clemens, and Rodriguez. Their plaques should describe their controversial use of steroids and the tainted records that they hold. Other players who used steroids may have performed near or above the average standard of players already in the Hall of Fame, but they should not be elected. Because they used PEDs they should be held to a higher standard and not be elected with the same standards as players who did not use steroids. Only the three players I mentioned should be inducted as they performed above and beyond the standards mentioned. They had an incredible playing ability before using steroids and made a poor decision in order to keep up with others who used the drugs. Their use of PEDs was not necessary and will taint the perception of their careers forever.

Bibliography

1. Major League Baseball Players Association. Major League Baseball's Joint Drug Prevention and Treatment Program, 2022. <https://www.mlbplayers.com/jda>. Accessed April 12, 2023.
2. Hoffman JR, Kraemer WJ, Bhasin S, et al. Position Stand on Androgen and Human Growth Hormone Use. *The Journal of Strength & Conditioning Research*. 2009;23:S1. [doi:10.1519/JSC.0b013e31819df2e6](https://doi.org/10.1519/JSC.0b013e31819df2e6)
3. Mitchell GJ. Report to the Commissioner of Baseball of an Independent Investigation into the Illegal Use of Steroids and Other Performance Enhancing Substances by Players in Major League Baseball. November 13, 2007. <https://files.mlb.com/mitchrpt.pdf>. Accessed April 12, 2023.
4. Young WA, Holland WS, Weckman GR. Determining Hall of Fame Status for Major League Baseball Using an Artificial Neural Network. *Journal of Quantitative Analysis in Sports*. 2008;4(4). [doi:10.2202/1559-0410.1131](https://doi.org/10.2202/1559-0410.1131).
5. Baseball-Reference.com. WAR Explained. https://www.baseball-reference.com/about/war_explained.shtml. Published May 2012. Updated March 2013. Accessed April 12, 2023.
6. Jaffe J. Jaffe WAR Score system (JAWS). Baseball-Reference.com. <https://www.baseball-reference.com/about/jaws.shtml>. Published November 19, 2012. Updated November 27, 2018. Accessed April 12, 2023.
7. Baseball-Reference.com. <https://www.baseball-reference.com/>. Accessed April 12, 2023.