

How Much Does Height Matter in Men's Tennis?

Men who are 5 ft 9 in are common in the general population and scarce in the ATP Top 100. At 6 ft 4 in, the pattern flips.

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TENNIS-DB.COM RESEARCH

How Much Does Height Matter in Men's Tennis?

815 ATP Top 100 entrants • 1985–2025 • two population references

RELATIVE REPRESENTATION

14–22×

6'4" compared with 5'9"

MEAN TOP 100 HEIGHT

+3.56 cm

1985–89 to 2021–25

Unique Top 100 players and annual ranking snapshots, 1985–2025

TD BI. Tennis-DB.com

KEY FINDINGS

- Scaled to groups of 1,000, the 5 ft 9 in band contained about 129 measured US men but 49 ATP entrants; at 6 ft 4 in, it contained about 9 US men but 74 entrants.
- Across the seven-inch span from 5 ft 9 in to 6 ft 4 in, the fitted height gradient compounded to roughly 14-22 times the relative representation.
- Mean annual Top 100 height rose 3.56 cm, or 1.40 in, from the 1985-1989 average to 2021-2025; 2.20 cm remained after a descriptive population adjustment.

tennis-db.com/research/how-much-does-height-matter-in-mens-tennis

Abstract

The study covers 815 players whose first recorded ATP Top 100 appearance came between 1985 and 2025. The most common listed height was 6 ft 1 in, but the stronger pattern emerges when the players are compared with the general population. Among 1,000 measured US men ages 20-39, about **129 would be 5 ft 9 in** and **9 would be 6 ft 4 in**. Among 1,000 players in the Top 100 cohort, the corresponding counts are **49 and 74**.

Because the ATP is international, the analysis also estimates how common each height would be among men from the same countries and birth years as the players. Both comparisons produced a steep gradient. Across the seven inches from 5 ft 9 in to 6 ft 4 in, relative representation increased roughly **14-22 times**.

The tour became taller as well. Mean Top 100 height rose by **3.56 cm, or 1.40 in**, from the late 1980s to the early 2020s. About 2.20 cm of that increase remained after accounting for broad changes in the countries and generations represented on tour.

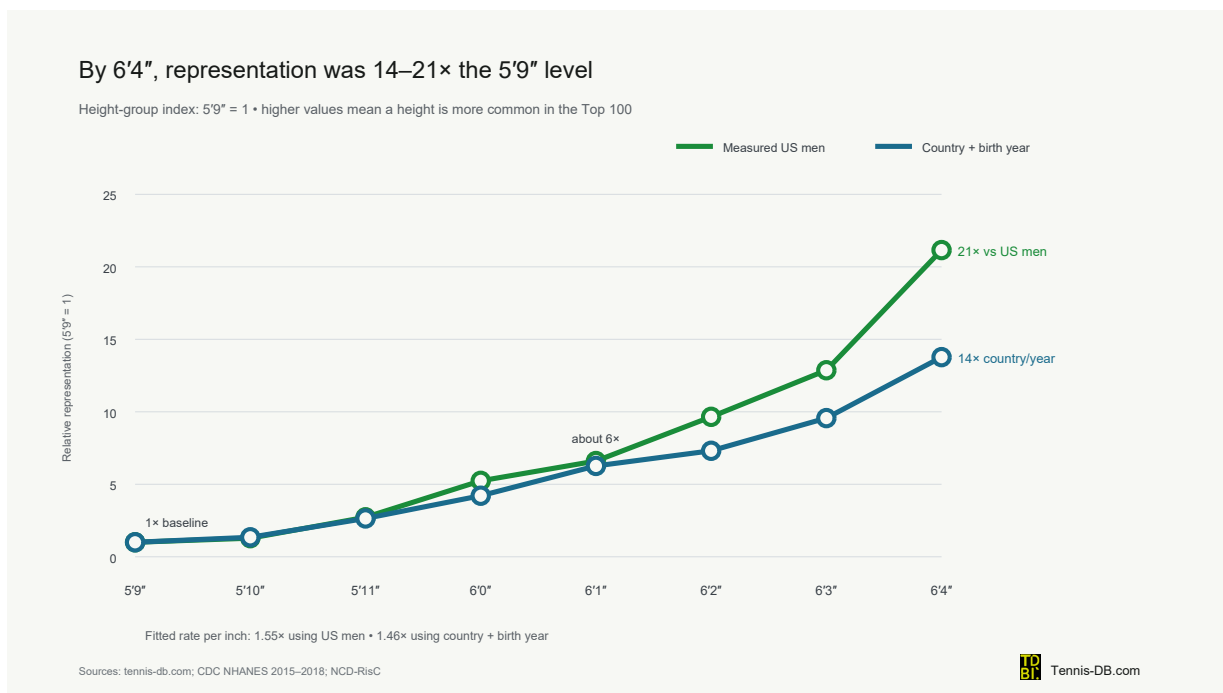
Each inch widened the representation gap

The measured-US comparison gives the most concrete starting point. In a group of 1,000 measured US men, about 129 would be 5 ft 9 in and only 9 would be 6 ft 4 in. Among 1,000 players in the Top 100 cohort, the corresponding counts are 49 and 74. The height pattern has nearly flipped.

Height	Share of ATP entrants	Share of measured US men	Per 1,000: ATP / US men
5 ft 9 in	4.91%	12.92%	49 / 129
6 ft	15.95%	8.01%	160 / 80
6 ft 1 in	17.18%	6.84%	172 / 68
6 ft 2 in	13.25%	3.61%	133 / 36
6 ft 4 in	7.36%	0.92%	74 / 9

There is no perfect population comparison for an international sport. The US sample consists of real, measured people, but it does not reflect the countries and generations that supplied the ATP cohort. A second, **country-and-birth-year benchmark**, starts with the average male height in each player's country and birth year, estimates how common each height band would be around those averages, and combines the estimates across the cohort. It is an estimate, not a second sample of individuals paired with the players. Its purpose is to test whether the result is mainly an artifact of comparing an international tour with US men.

For either benchmark, relative representation compares a height group's share of the Top 100 cohort with its share of the population. A value of 2 means that height appeared twice as often in the tennis cohort as in the population benchmark. The chart goes one step further: it sets the 5 ft 9 in result to 1 for each benchmark, making the increase across heights easy to compare.



What 1.5 times per inch looks like

The everyday comparison is 5 ft 9 in versus 6 ft 1 in, the most common height in the cohort. After accounting for how common the two heights are in the population, the 6 ft 1 in group was **6.3-6.6 times as represented** as the 5 ft 9 in group. Put the other way, relative representation at 5 ft 9 in was about one-sixth as high.

By 6 ft 4 in, the observed gap had grown to **13.8 times** against the country-and-birth-year benchmark and **21.2 times** against measured US men. A fitted trend across the eight height groups summarizes the same climb as a multiplier of 1.46-1.55 for every inch. Because each step builds on the one before it, seven one-inch steps compound to roughly 14-22 times.

Equalize the number of men at the two heights, and the scale becomes clearer: at the observed relative rates, the 6 ft 4 in group would supply about 14-22 Top 100 players for every one supplied by the 5 ft 9 in group. The study cannot attach an absolute probability to either group because it does not count how many men at each height seriously pursued tennis.

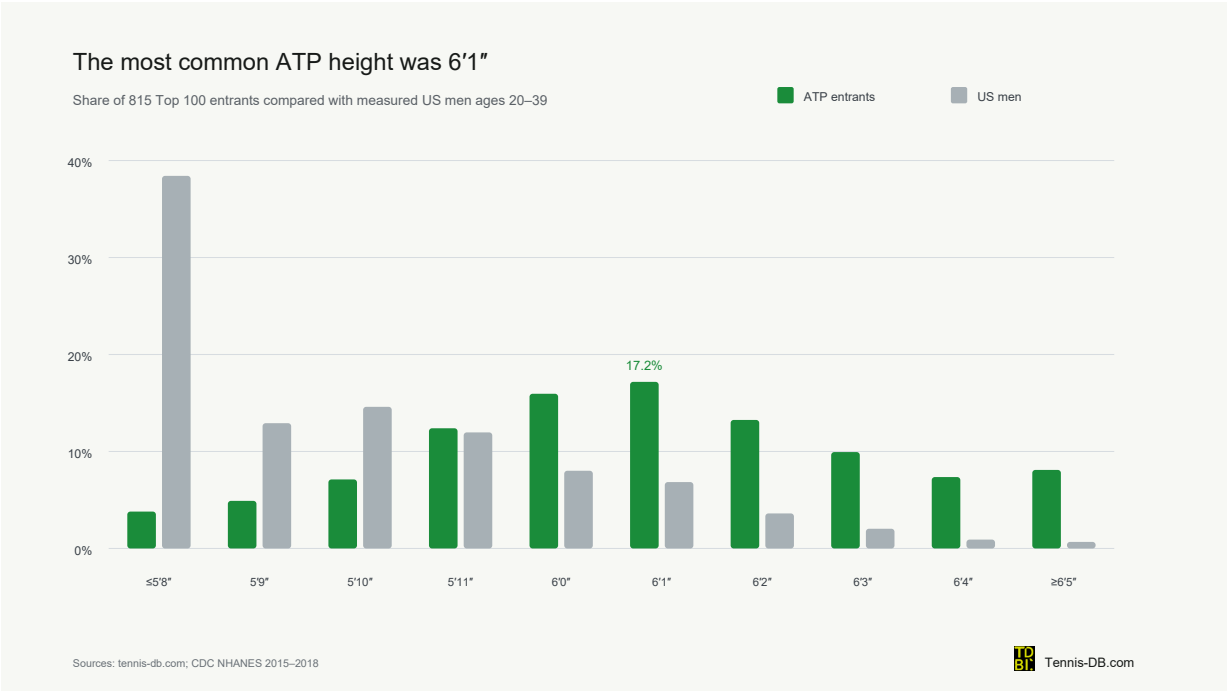
The chart starts at 5 ft 9 in and ends at 6 ft 4 in because those are the widest run of separate one-inch groups. Shorter players are pooled into a 5 ft 8 in-and-under group, and taller players into a 6 ft 5 in-and-over group. Those pooled tails are not like-for-like exact-inch comparisons, and splitting them would make the estimates unstable.

The most common height was 6 ft 1 in - not 6 ft 4 in

Relative representation kept rising through 6 ft 4 in, but the number of players did not. The cohort contained 140 players at 6 ft 1 in, or 17.18%, more than at any other exact-inch height. At 6 ft 4 in, it contained 60 players, or 7.36%.

There is no contradiction. Men who are 6 ft 4 in are far rarer in the population than men who are 6 ft 1 in. The taller group can therefore be smaller in the Top 100 and still be more heavily represented

relative to the number of men that height.



The full distribution shows the scale of the shift. Players listed at 5 ft 8 in or shorter made up 3.80% of the ATP cohort and 38.42% of measured US men. At the other end, players listed at 6 ft 5 in or taller made up 8.10% of the ATP cohort and 0.68% of the measured group.

One in six Top 100 players was at least 6 ft 4 in

Broad thresholds are more stable than single extreme heights. Players listed at least 193 cm - about 6 ft 4 in - made up **one in six of the Top 100 cohort but only one in 111 measured US men**. The country-and-birth-year benchmark puts the population share at about one in 63. Either way, this height group was unusually common in the ATP cohort.

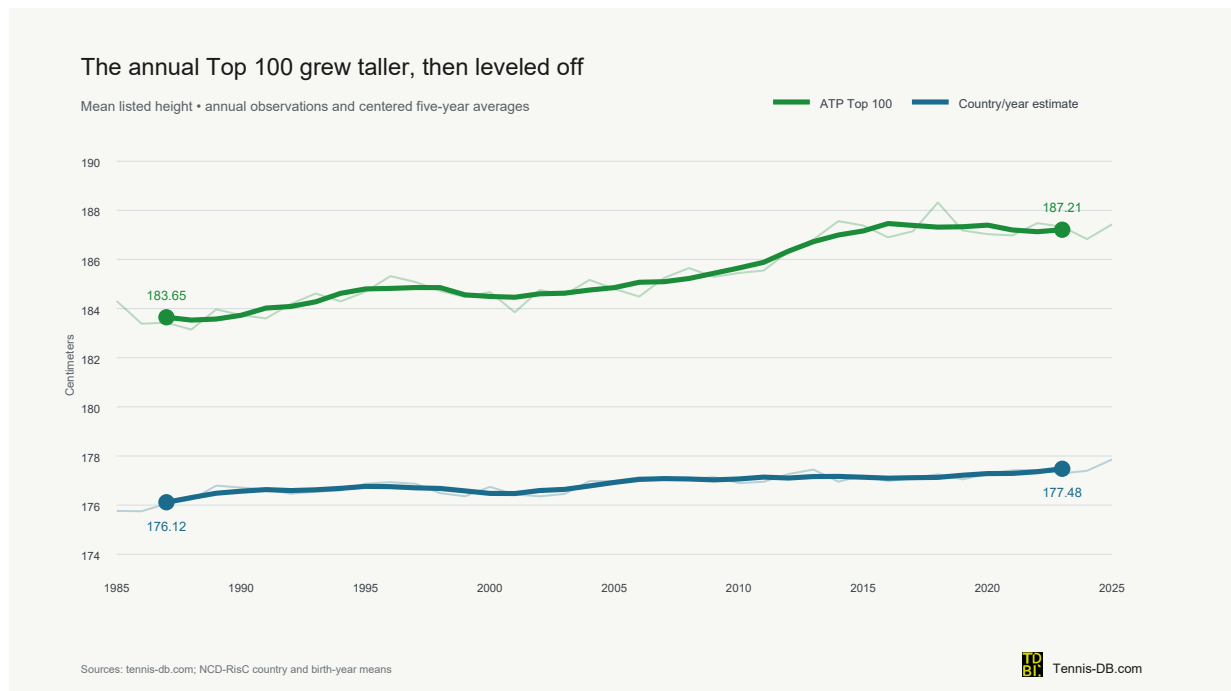
Minimum height	ATP players in cohort	Measured US men	Compared with US men	Compared with country/year
183 cm (about 6 ft)	585 (71.78%)	17.74%	4.05×	3.46×
188 cm (about 6 ft 2 in)	313 (38.40%)	4.68%	8.20×	5.51×
193 cm (about 6 ft 4 in)	126 (15.46%)	0.90%	17.16×	9.85×

At 193 cm, changing the assumed spread of height within countries moves the country-and-birth-year estimate from 7.2 to 14.3 times; the measured-US comparison is 17.2 times. Estimates become much less stable above that threshold because the measured population contains almost no men in the most extreme height groups. The higher estimates remain in the data download but not in the headline result.

The Top 100 grew taller

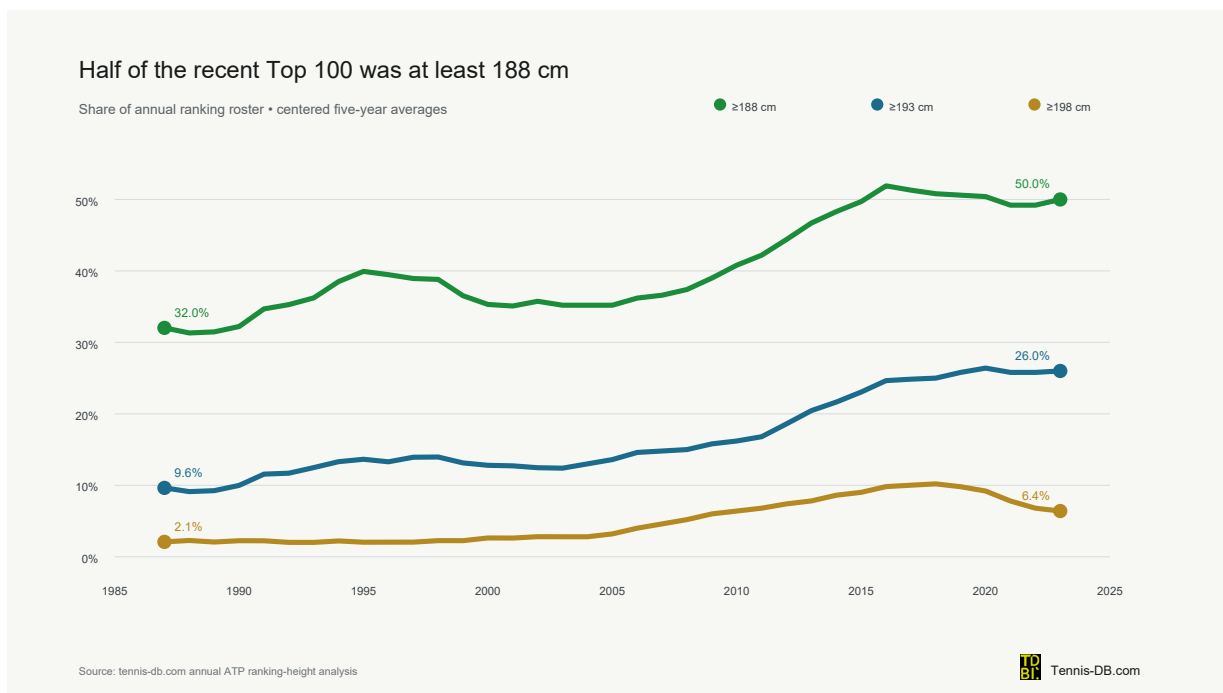
The career comparison pools unique players across four decades. To see how the tour itself changed, the historical analysis takes one Top 100 ranking snapshot from every year between 1985 and 2025.

The five-year average of mean Top 100 height rose from 183.65 cm in 1985-1989 - a little over 6 ft - to 187.21 cm in 2021-2025 - almost 6 ft 2 in. That is a gain of 3.56 cm, or 1.40 in. The median moved by a similar amount, from 183.4 to 186.8 cm.



The country-and-birth-year benchmark rose by 1.36 cm between the same periods as average male height changed and the tour's country mix shifted. The gap between the Top 100 mean and that benchmark still widened by 2.20 cm, from 7.53 to 9.73 cm. This is a broad demographic adjustment, not an attempt to hold every difference between eras constant.

Taller players also occupied more of the ranking. In 1985-1989, about one in three Top 100 players was at least 188 cm; by 2021-2025, it was one in two. The share at least 193 cm rose from roughly one in ten to just over one in four, while the share at least 198 cm rose from 2.08% to 6.40%.



The increase was not continuous. Annual mean height peaked at 188.32 cm in 2018 and was 187.43 cm in 2025. The long-run change is substantial, but the recent period looks more like a plateau than another sustained climb.

What height alone cannot explain

The data show who reached the Top 100, not why. They do not test whether the pattern operates through serving, returning, movement, career length, or another mechanism. Nor can they separate height from the training, resources, playing styles, and national participation patterns that helped produce the same cohort.

Both benchmarks have limits. The measured sample preserves the real height distribution but covers US men, while the country-and-birth-year benchmark better reflects the international cohort but must estimate the spread around each national average. Neither one counts how many men at each height played organized tennis or pursued a professional career. That missing denominator is why the study can compare height groups but cannot give their absolute odds of reaching the Top 100.

Conclusion

Relative to their numbers in the population, 6 ft 1 in players were represented about six times as heavily as 5 ft 9 in players. By 6 ft 4 in, the difference had grown to roughly **14-22 times**.

Being very tall did not make a player common: 6 ft 1 in was still the largest group in the cohort. It made him unusually common relative to how few men of that height exist.

Across time, mean Top 100 height rose by 3.56 cm, or 1.40 in, from the late 1980s to the early 2020s, then leveled off. Elite men's tennis draws disproportionately from the tall end of the population - and today's Top 100 is substantially taller than it was four decades ago.

Methodology

Career cohort and height definition

The career analysis contains 815 unique ATP players first observed at ranks 1-100 from January 1, 1985, through December 31, 2025. Beginning in 1985 avoids the missing-height concentration at the start of the ranking archive. Across all 1,188 players observed in the Top 100 since 1973, height is known for 1,109; all 79 missing values belong to players first observed before 1985. Height coverage in the primary cohort is 100%.

The canonical listed height uses a high-confidence Wikidata value when available and the base player record otherwise. Values outside 150-220 cm were excluded as implausible. Twenty-one players had source values differing by more than 2 cm. Using the base player height for those cases changed the cohort mean by -0.06 cm and the 193-cm count from 126 to 125.

Height bands are centered on whole inches using 2.54-cm intervals. The shortest and tallest groups are pooled at 5 ft 8 in or shorter and 6 ft 5 in or taller. The per-inch multiplier comes from a straight-line fit to the logarithm of the eight exact-band representation ratios from 5 ft 9 in through 6 ft 4 in. The fits explain 97%-98% of the variation in those logarithms.

Population references

The directly observed reference uses measured standing height among 1,607 men ages 20-39 in the 2015-2018 National Health and Nutrition Examination Survey. Mobile-examination-center weights produce the population shares. The reconstruction matches the CDC's published Table 11 sample sizes and rounded means for men ages 20-29 and 30-39.

The country-and-birth-year benchmark uses NCD Risk Factor Collaboration estimates of mean male height by country and birth cohort. ATP country codes are mapped to ISO codes, and each player is assigned the mean for his country and birth year. The benchmark covers 804 of 815 players. Nine players lack a usable birth year, and Monaco is absent from the source data for two. Birth years after the NCD-RisC series ends in 1996 use the 1996 national estimate.

NCD-RisC provides national means rather than individual height distributions. Estimating the share in each height band therefore requires an assumption about how widely heights vary within a country. The central calculation uses a standard deviation of 7.0 cm and repeats the analysis at 6.5 and 7.5 cm. That choice matters most in the extreme tail.

Historical series and uncertainty

For each calendar year, the selected ranking date has the most distinct ranks from 1 through 100, then the most rows, then the latest date. The 1985-2025 series requires at least 90 distinct ranks and 95% known height. Players may appear in multiple annual rosters; unlike the career analysis, this series describes ranking places in each selected year.

Five-year endpoint comparisons average 1985-1989 and 2021-2025. Chart lines use centered five-year averages, while fitted trends use all 41 annual observations. The country-and-birth-year benchmark averages the NCD-RisC national means assigned to the players present in each roster.

The data download reports 95% Wilson intervals for ATP entrant shares and corresponding NHANES ratios. These are count-based summaries only. They do not incorporate NHANES survey-design

variance or uncertainty in the NCD-RisC model.

Limitations

- Professional heights are listed career attributes, often rounded, rather than measurements taken on each ranking date.
- The US population reference does not represent the international tennis pathway. The country-and-birth-year benchmark adjusts for country and generation, but not migration, ancestry, socioeconomic access, or tennis participation.
- Population estimates above 198 cm are sparse or model-dependent. Precise extreme-tail ratios should not be treated as stable findings.
- The ranking archive is incomplete before the 1990s. The primary historical series uses explicit coverage thresholds, but its earliest rosters still contain fewer than 100 distinct ranks.
- Representation ratios are descriptive associations. They do not estimate the causal effect of height on one player's development or results.

Data and attribution

Analysis: tennis-db.com. ATP ranking membership and canonical player attributes come from the tour-aware TennisDB serving warehouse, frozen August 29, 2026. Historical rankings before 2025 are derived from Jeff Sackmann's [ATP dataset](#); current rankings are supplemented by the [BALLDONTLIE API](#). The [ATP rankings FAQ](#) describes the official ranking's role in tournament entry and seeding.

The measured population reference comes from the CDC's [Anthropometric Reference Data for Children and Adults: United States, 2015-2018](#). National birth-cohort estimates come from the NCD Risk Factor Collaboration paper [A century of trends in adult human height](#) and its [country-level data archive](#).

The Download Data action includes the frozen cohort summary, exact height bands, threshold comparisons, annual series, population-adjusted series, fitted slopes, and source-sensitivity result. Cohort rules, coverage diagnostics, source hashes, and the read-only extraction code are preserved in the internal research record.

Sources

1. [CDC anthropometric reference data, United States, 2015-2018](#)
2. [NCD-RisC - A century of trends in adult human height](#)
3. [NCD-RisC country-by-birth-cohort height data](#)
4. [Jeff Sackmann ATP rankings and match data](#)
5. [BALLDONTLIE ATP API documentation](#)
6. [ATP rankings FAQ](#)

Publication record

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Questions about this study or requests for future tennis-db.com Research can be sent to contact@tennis-db.com or [through the contact form](#).