

## The dominance of black in 100 m sprint

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### ■ ABSTRACT

The objective of the present study was to analyze the cause of the dominance of black in 100 m. sprint. In 100 m. Sprint 10 Second club is considered the most prestigious club and there is only one white in it, so it is a unsolved mistry for Scientist to find the exact reason for the dominance of black. Over 200 scientific studies have been carried out and they have given certain reasons for the dominance of black.

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The dominance of black origin in 100 m sprint is not a myth. This is a truth which has to be accepted, because the records are clearly in favour of blacks. In athletics, 100 m race is considered the most prestigious race and till date there is only one white man in the history of sports who broke the barrier of 10 seconds, on the other side black athletes broke this barrier 73 times. This shows the dominance of blacks in sprints.

Black dominance in sprints is now accepted by most of us. As in 100 m race which has been a one way traffic for black and it is largely dominated by them, only Christophe Lemaitre of France broke the barrier of 10 sec. on 9<sup>th</sup> of July 2010, and become the first white to entered the prestigious club of under 10 second. Otherwise, in the history of 100 m the barrier of 10 seconds has been broken by the blacks 73 times, few sportsmen broke this barrier more than one time, so this shows that black are a way ahead of white in 100 m. The dominance of black in 100 m is shown by the fact that the fastest 10 Runner of 100m are black.

### Notes:

- Tyson Gay also has a time of 9.68 sec set on 29 June 2008 during the 2008 U.S. Olympic Track and Field Trials at Hayward Field in Eugene, Oregon; the tail wind speed was 4.1 m/s, more than double the IAAF

legal limit.

- Obadele Thompson ran a wind-aided 9.69 in El Paso, Texas in April 1996 which stood as the fastest ever 100m time for 12 years until Tyson Gay's June 2008 performance.
- Justin Gatlin ran 9.77 in Doha on 12 May 2006, which was at the time ratified as a world record. However, the performance was annulled in 2007 after he failed a doping test in April 2006.
- Carl Lewis ran a time of 9.78 seconds at the 1988 US olympic trials in Indianapolis but it was wind aided.
- Tim Montgomery's time (9.78 at Paris on 14 September 2002) was invalidated following his indictment in the BALCO scandal on drug use and drug trafficking charges. The time had stood as the world record until Asafa Powell first ran 9.77.
- Ben Johnson ran 9.79 at Seoul on 24 September 1988, but he was disqualified after he tested positive for stanozolol after the race. He subsequently admitted to drug use between 1981 and 1988, and his time of 9.83 at Rome on 30 August 1987 was invalidated. Carl Lewis's 9.92 in the Seoul race was therefore recognized as the world record and his two prior runs of 9.93 were seen as having equaled the previous world record.

Table 1 : Top ten all-time athletes—men						Updated 29 August 2010
Rank	Fastest time	Wind (m/s)	Athlete	Country	Date	Location
1.	9.58	+0.9	Usain Bolt	Jamaica	16 August 2009	Berlin
2.	9.69	+2.0	Tyson Gay	United States	20 September 2009	Shanghai
3.	9.72	+0.2	Asafa Powell	Jamaica	2 September 2008	Lausanne
4.	9.78	+0.9	Nesta Carter	Jamaica	29 August 2010	Rieti
5.	9.79	+0.1	Maurice Greene	United States	16 June 1999	Athens
6.	9.84	+0.7	Donovan Bailey	Canada	27 July 1996	Atlanta
		+0.2	Bruny Surin	Canada	22 August 1999	Seville
8.	9.85	+1.2	Leroy Burrell	United States	6 July 1994	Lausanne
		+0.6	Justin Gatlin	United States	22 August 2004	Athens
		+1.7	Olusoji Fasuba	Nigeria	12 May 2006	Doha

The dominance of black athletes in sprint has come under huge scrutiny by scientists and sociologists in the past years, over few hundred scientific studies have been carried out and many more are going on, but the exact reasons for dominance of black is still unknown.

There are many reasons given by different scientist in their research, some of them are following.

Centre of gravity: Blacks have a higher centre of gravity compared to their white peers. Black sprinters have a 0.15 second advantage over their white rivals because they tend to have higher centre of gravity, meaning they can fall to ground more quickly between each stride.

The reason for the higher centre of gravity is that the blacks have longer legs and shorter trunk. Asians (East Asians, Chinese, Japanese, Vietnamese) tend to be smaller and relatively short extremities and long torsos, Black tend to have relatively long extremities with short torsos, and whites are somewhere in between.

“We are build a little differently, build for speed-skinny calves, long legs, high asses are all characteristics of blacks. That’s why blacks wear long socks. We have skinny calves, and short shocks won’t stay up. I will agree with any doctor that physically we’re geared to speed, and most sports have something to do with speed” O.J. Simpson.

According to noted scientist Robert Malina in 1987 “Black youth has absolutely and relatively longer lower extremities than Mexican American and white youth (Malina, 1987).

**Motor geniuses :**

Motor development in black are more advanced than white children during the first two years of life. Several studies which have compared black and white American infants suggest a strong race difference in motor development, fourth fifth and sixth grade black boys run 35 yard faster than their white peers.

According to Canadian Robert Malina, who compiled

several studies of motor performance between black and white males between 1938 and 1976. Even over this extended period of time the results are remarkably consistent. That is blacks did better in tests of Motor ability, black performed better in the sprints (Malina, 1969 a,b, 1988).

**More muscle less fat :**

Blacks have less fat and more Muscles in Comparison to white, Anthropometry (the science of Measuring the human body) and body fat distribution was ascertained in over 100 Anglo, black and Mexican-American men. Black American men had significantly less total fat than either Anglo or Mexican-American men. Black men also had less arm fat than both groups and less truncal fat than Mexican-American. In addition, blacks possess greater appendicular Muscle mass than whites or Asians.

In an study by David W. Hunter of Ohia State University in 1988 now at Hamilton University. He compared laboratory and “real-world” measurements of anaerobic power or performance. He examined 74 blacks and 62 white males (average age 16.5 year). There were no differences in age, height, weight, lean body weight, body mass index (body weight in Kilograms divided by square of body height in meters). However black subjects had significantly less percentage of body fat Hunter, 1988.

**Difference in body density :**

The greater body density of blacks is likely due to a higher bone density. In a study by Bell, *et al.*, they compared bone density in 59 normal white men and 40 normal blacks men (ages 20-50). They found that the bone mineral density was higher in blacks than in white measured at the lumbar spine, trochanter and femoral neck.

**Testosterone :**

It is known that testosterone is anabolic with regard to skeletal muscle and catabolic with regard to fat, Black have a

modest but significantly higher level of Plasma testosterone (3-19%). This may be the reason for less fat and more muscularity in black in comparison to white (Ellis and Helmuth, 1992; James, 1993).

#### **Fast twitch fibres :**

Some studies indicate that these black sprinters have higher proportion of fast-twitch fibre in comparison to white because fast twitch fibres are must for sprinters.

All these reasons may be behind the dominance of black in sprints but there may be other reasons too which are still under cover.

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