

# How Much Should an Athlete Weigh

**Arthur Jones**

An athlete should weigh as much as possible...as much as possible without limiting any of the factors of performance required by his individual sport.

If added bodyweight increases a sprinter's speed, and it will if the additional weight is in the form of muscular tissue (LBM), and if it is added to the legs and hips...then the extra weight is desirable.

But an equal mass of muscular tissue added to the arms and shoulders of the same athlete would certainly not be desirable, because it would contribute nothing to his performance and would add the burden of extra weight...giving, in that case, a net loss in performance.

And a gymnast would offer an example of an almost opposite situation...in the case of a gymnast, LBM added to the legs would reduce the level of performance, while LBM added to the muscles of the arms and torso would increase the level of performance.

In short, an athlete should add muscle where he needs it...and where it will contribute directly to his particular sport. And he should not add weight where it will hinder his performance.

And in almost all cases, fatty tissue is merely an added burden that limits performance.

It should be clearly understood that a proper muscular development for any sport will seldom be a truly proportionate development...on the contrary, a certain degree of "lopsided" muscular development is a requirement for high levels of performance in almost all sports.

Heavy progressive exercise will increase the strength of any athlete...but it will also increase the muscular mass, which will always increase the bodyweight of a muscular individual. So exercise should be applied selectively...should be devoted to the production of strength in muscular structures that will directly contribute to the sport of the individual.

Which does NOT mean that any athlete should ignore any part of his body...on the contrary, all athletes should train all parts of their body. But the development of muscular structures that are not directly involved in a particular sport should be limited...such "non-contributing" muscles should be strengthened to a reasonable level, but no attempt should be made to attain maximum development in those areas of the body.

In fact, almost all athletes IN ANY SPORT...can train, and SHOULD TRAIN, in an almost exactly similar manner. With only one difference...exercise that involve directly contributing muscles should be worked with maximum intensity, thus assuring maximum strength and maximum performance...but muscles that do NOT contribute to the particular sport should be trained with a lower order of intensity, thus assuring great flexibility and reducing the chances of injury, while avoiding the penalty of excess, "non-contributing" bodyweight.

It is easily possible to increase the strength of an athlete without increasing his bodyweight.

And it is even possible, if not quite so easy, to increase strength while actually reducing bodyweight.

But little or nothing can be done to increase the actual “strength” of a particular muscle without also increasing the mass, and thus the weight, of the same muscle.

And there is no slightest paradox involved in the above three statements...although a great deal of confusion exists in this subject.

At least some of this lack of understanding results from the common habit of relating bodyweight or bodily measurements to muscular mass...which is a mistake.

Additional misunderstanding stems from widespread confusion on the subject of strength. Just what is “strength”? How do you define it? Ask a dozen people and you may get a dozen different answers.

A previously untrained individual may fail to bench press 150 pounds the first time he tries it, and then handle 200 pounds a week later. But has his “strength” really increased by a third in such a short time?

Not likely. It is far more likely that he has simply learned the correct style required for that particular lift.

So before any meaningful discussion of strength is even possible...we must first define “strength” as it will be used hereinafter.

It is my opinion that strength is best defined as...”the ability of a muscle to produce force.”

And only then, when we have removed such confusing factors as leverage and skill, does it become possible to accurately measure increases in strength resulting from exercise...or losses in strength resulting from a lack of exercise or from other factors.

It has long been recognized by physiologists that the “strength” of a muscle, as defined above...is **DIRECTLY RELATED** to its cross-sectional area. Which cross-sectional area is directly related to its mass. Which mass is directly related to its weight.

If a muscle was formed in the shape of a sphere, then increasing the cross-sectional area would result in a disproportionate increase in its mass, or weight.

**BUT, INSTEAD...**a muscle is shaped more on the order of a “limited-length” cylinder. So increasing its cross-sectional area will thus result in a direct, proportionate increase in its mass, or weight, or “size”.

**THUS...**for all practical purposes, the size of a muscle is in direct proportion to the strength of the same muscle.

Which certainly does NOT mean that the 16-inch arm of one man will be exactly equal in strength to the equal-sized arm of another individual.

When two or more individuals are compared, then many other factors become involved...the length of limbs, and thus the leverage advantages or disadvantages...the attachment points of muscles, again a leverage factor...variations in neurological efficiency...differences in skill...the ratios of muscular tissue to fatty tissue. And many other factors.

Thus, in fact...it is almost literally impossible to accurately compare the actual strength of two or more individuals.

But, for the purposes of exercise it is not necessary to make such comparisons. All that is required is the ability to measure an individual's momentary level of strength in order to compare it to his strength at another point in time.

The simple fact that Bill can bench-press 300 pounds while George can handle only 150 pounds in the same lift tells us nothing of value...and it certainly does NOT tell us that Bill is "twice as strong" as George.

"Able to bench-press twice as much"...certainly; but twice as strong? Not necessarily.

George, the apparently much weaker man, may have arms exactly twice as long as the arms of Bill...in which case the "strength" would be equal, since the man with the longer arms would be moving the weight twice as far as the other man.

Then, too, it depends upon the speed of movement. And upon many other factors...far too many factors for any sort of meaningful comparison.

BUT ...if we compare each man only to himself, then we have a far better chance to produce meaningful measurements of actual strength. If George can bench-press 150 pounds on a particular date...and then, a year later, can bench-press 300 pounds...then he has doubled his strength. If the speed of movement is the same in both cases...and if the form, or style of performance, is the same in both cases.

In the field of athletic training, apart from the sport of weightlifting, the measurement of strength has only one meaningful application...for the purpose of measuring progress produced by exercise.

Neither the coach nor the athlete should care just "how much" an athlete can bench-press...so long as the athlete can handle as much as he as an individual, is capable of using in good form.

Trying to set a "standard" of performance for all athletes is a mistake...even when such a standard is based upon the bodyweight of athletes.

INSTEAD...train your athletes in such a fashion that all of them will develop as much strength as possible. As much as possible for themselves, AS INDIVIDUALS.

No intelligent coach expects a lineman to run as fast as a much lighter backfield man...but instead, both types of players are trained to run as fast as they can, as individuals.

Strength training must be conducted with the same sort of consideration for individual differences in size, in weight, in leverage...and when such consideration is lacking, then any attempt at comparison will be meaningless.

Train your athletes as individuals...for the individual sport. And let the bodyweight be what it may.