

FOOD FOR THOUGHT

The predicament of a modern athlete

Veg or non-veg? The debate has been raging for close to three or four decades since sport has become a lucrative career option.


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Everyday at my sports nutrition clinic the phone rings with a worried athlete asking: "Sir, can I become a powerful athlete on a veg diet? My coach is asking me to change to non-veg (diet)!"

Veg or non-veg? The debate has been raging for close to three or four decades since sport has become a lucrative career option. Before we dwell on the correct answer, let me elaborate on the scientific parts.

Let us first understand that we are anatomically herbivorous (eating vegetables). The jaws of carnivores (meat-eaters) move only up and down, requiring them to tear chunks of flesh from their prey and swallow them whole. Humans and other herbivores can move their jaws up and down and from side to side, allowing them to chew fruits and vegetables with the teeth at the back of the mouth. Like the teeth of other herbivores, the molars of humans are flat and help in grinding fibrous plant foods. Carnivores lack these flat molars.

Carnivores rely on their extremely acidic stomach juices to break down flesh and kill the dangerous bacteria in meat that would otherwise make them sick or kill them.



Sushil Kumar, according to the columnist, made him realise that a veg athlete can be a supreme powerhouse. - SUSHIL KUMAR VERMA

Our stomach acids are much weaker in comparison because strong acids are not needed to digest chewed fruits and vegetables.

Carnivores have short intestinal tracts and colons that allow meat to pass through relatively quickly before it can rot and cause illness. Intestinal tracts of humans are much longer than those of carnivores of comparable size. Longer intestines allow the body more time to break down fibre and absorb the nutrients from plant-based foods. With the advent of fire and tools to hunt and kill animals, meat appeared in our diet that made cultures more aggressive and stronger. This has been debated over the years, and is the meat on the bone today. Is an athlete on a non-veg diet stronger than one on a veg diet?

So, now that you have read that the athlete has a body that is designed to be more veg than non-veg, why is it that athletes confess to feeling stronger with a non-veg diet?

Everybody is taught to eat based on culture and what they love to consume. There is no science to our eating. An athlete is taught to eat at home. This diet may not be exacting to the macro nutrients, that is protein, carbohydrates and fat. Coaches notice that with hectic and gruelling 5-7 hours of back-to-back training sessions over the weeks, the strain of pushing the limits begins to take a toll on the athlete's muscles in terms of growth, loss of muscle tissue, injury, low energy levels and constant fatigue.

So when one turns to non-veg, there is an instant, higher percentage of protein in the diet. In fact, a recent survey shows that 80% of the Indian diet lacks protein. I believe this is the crucial inflection point for any veg athlete. Most vegetarians believe that they get enough of protein. This is far from the truth.

As a clinical biochemist and sports nutritionist, I constantly tinker with recipes in the kitchen for players. So some times it's veg and some times non-veg. Meat has a higher protein efficiency ratio. It contains carnosine, an amino acid that improves lactic acid buffering, well-being in the brain and endurance. That's why athletes feel the surge of power after eating non-veg for the first time. A lot is brain chemistry.

Meat also contains creatine, which helps in the sprint cycle or anaerobic respiration. Iron as an element is crucial in oxygen intake in athletes. It's found in haemoglobin, the blood carrying protein that carries oxygen to exercising muscle and returns carbon-dioxide to the lungs.

Myoglobin is another primary oxygen-carrying pigment of muscle tissues. High concentrations of myoglobin in muscle cells allow humans to hold their breath for a longer period of time.

An athlete has to eat 6-8 times a day. The choices of food depend on periods of rest, training and recovery.

Another aspect I notice is, when an athlete, especially a veg athlete, travels, he/she has a problem with regard to the availability of veg food. Only international events offer respite, with veg, gluten-free and vegan kitchens. Lower-strung events destroy athletes due to lack of good meal options. This may be the primary reason why coaches insist with parents that the players be flexible to eat what they get.