

Rice Protein's Amino Acid Score

#veganprotein #completeprotein #incompleteprotein

Do Incomplete Proteins Need to Be Mixed?

Typically, grain-based proteins complement bean/legume based-proteins because one is low in the amino acid(s) which the other is high in and vice-versa. Together complementary proteins make complete proteins. As such, [rice protein](#) (grain-based) can be (and is popularly) combined with pea protein, a legume-based protein since it is high in lysine. It could also be mixed with soy or any animal-based proteins depending on taste preferences or dietary restrictions. But do they need to be mixed?



Technical information aside, all incomplete means is that it cannot be one's sole source of protein. It does not mean that the protein is useless or bad for the body. Alternate sources of protein should be consumed throughout the day so that the body gets enough of each of the EAAs.

In the past, it was believed that complete proteins had to be consumed in one meal/sitting in order for the body to absorb and utilize the EAAs. However, research has shown that the body is able to take incomplete proteins and make them complete by mixing them with endogenous protein (amino acids) from the intestinal tract—should complementary sources of protein not be available.

In reality—it is rare to find cases in which humans are consuming a single source of protein each day. This may occur when multiple food allergies are present or when protein sources are restricted for other medical condition such as after bariatric surgery. Babies are forced to consume a single source, as their bodies are not capable of digesting all types of proteins at that stage. People in third world countries may be restricted to one source due to poverty and food insecurity.

But otherwise, typical, westernized adult diets contain multiple sources of protein each day. And many regularly include incomplete protein sources. For example, a bowl of oatmeal cooked with water, a handful of almonds or nuts, or a bowl of black bean soup all contain incomplete proteins.

For omnivores and vegans alike, so long as the diet is varied and nutritious, incomplete proteins (like rice protein) do not need to be completed within the same meal.

In fact, athletes had no problem significantly increasing their muscle mass and body strength when supplementing with rice protein after strength training for 8 weeks according to one study.

View more at: <http://www.riceproteinfacts.com/rice-proteins/>