

Scientist concerned by US decline in meat protein consumption

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A 14 percent decline in U.S. consumer meat consumption over the past decade has caused alarm with one Texas A&M AgriLife scientist who warns the effects could be dire for overall human health and child development.

Dr. Guoyao Wu, distinguished professor in the department of [animal science](#) at Texas A&M University, said U.S. consumers have been overwhelmed with misinformation about [protein](#) and fats in meats, which in turn has led to many consuming less meat or no meat at all.

"Obesity rates have gone up the last 20 years, while consumption of meat has declined," Wu said. "So I don't believe that we can blame obesity on eating meat. Rather I think excessive portion sizes and lack of exercise are more likely the causes of obesity."

Wu co-authored a paper that appeared in the *Journal of Animal Science*, which examines the composition of amino acids in certain cuts of beef. According to the paper, meat consumption helps build [muscle protein](#) and ameliorates muscle loss in the elderly.

Wu said animal meat has lots of beneficial antioxidants, such as taurine and carnosine, "which are extremely important to protect the gut, skin, heart, eyes, and other organs. Plants do not provide these antioxidants."

"People on a vegan diet tend to forget how important high-quality protein is to human growth and health," Wu said. "If you look at the

population of some Asian countries, most males are short and the children are stunted. Twenty years ago, one-third of the children were stunted. Now, less than 10 percent are stunted because of increased consumption of animal-source protein in their diets."

In the journal article, Wu stresses that antioxidants found in meat are "essential for children and conditionally essential for adults to maintain retinal and cardiac functions."

In adult humans, there is a degenerative loss of skeletal muscle mass at the rate of 0.5 to 1 percent per year after the age of 50 years. The vegan diet results in a greater loss of skeletal muscle than the diet containing both plant-and animal-source proteins in an appropriate ratio, Wu said.

"In the U.S., there is ample supply of meat and protein," he said. "Without including any meat from animals or any animal-source protein in your diet, it definitely leads to skeletal muscle loss. We must do something to stop this trend."

The 2015 U.S. Department of Agriculture Dietary Guidelines Committee report concluded that the U.S. diet is low in vegetables, fruit and whole grains and too high in calories, saturated fat, sodium, refined grains and added sugars. More than two-thirds of adults and nearly one-third of children and youth are obese or overweight.

Wu said part of the issue is due to parents who do not cook meats or serve insufficient meats at home, and prepare meals that have little or no [animal protein](#). Adequate protein nutrition is required to reduce obesity and maintain good health in humans.

"Children especially need meat to build [skeletal muscle](#)," Wu said. "They are at a critical stage in their lives as their bodies continue to develop and mature. Without sufficient sources of protein, their muscle, bones and

other organs will not develop properly, which will lead to health problems later in life."

USDA Dietary Guidelines predict further declines in animal protein intake.

"Animal protein is generally more balanced in amino acid composition than plant protein, especially for children. If you look at some countries, children are stunted. They have primarily a corn-based diet. Corn contains so little amino acids compared with [meat](#). When I see stunted children or adults in the U.S. due to limited or no consumption of animal protein, I feel very sad."

"Our country has the greatest abundance of protein, but some choose to live such an unhealthy lifestyle," he said.

More information: G. Wu et al. Composition of free and peptide-bound amino acids in beef chuck, loin, and round cuts, *Journal of Animal Science* (2016). [DOI: 10.2527/jas.2016-0478](https://doi.org/10.2527/jas.2016-0478)

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