

# Protein Shake Up

Companies claiming health benefits are adding collagen to nutrition bars, coffee creamers and more. But is it effective, wonder **Alice Callahan** and **Dani Blum**



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**P**ink cans of collagen water promise to combat wrinkles. Coffee creamers packed with “collagen peptides” say they’ll quash cravings and keep you full. And more protein bars now list collagen as an ingredient, touting its benefits for healthy skin, bones and joints.

Collagen, a type of protein, has been the domain of skincare products for years. But companies are increasingly adding it to foods and drinks, catering to customers who are looking for more ways to beef up their protein intake or to reap collagen’s other purported health benefits.

“It all starts from a very healthy, good place,” said Dr. Lauren Taglia, a dermatologist at Northwestern Medicine, US. But she and other experts said the marketing of these products had created unrealistic expectations around what collagen can do.

Collagen is one of the primary building blocks for our skin, muscles, bones, tendons, ligaments and connective tissues. In our 20s, we naturally begin to produce less collagen, and we also lose our existing collagen at

a faster rate as we get older.

The collagen used in supplements and processed foods is usually extracted from byproducts of fish or meat processing, such as the bones or hides of cows or pigs. Manufacturers further process it to remove residual flavours and make it easier to digest, said Bruno Xavier, the associate director of the Cornell Food Venture Center in Geneva, which is based in New York, US, and helps companies develop new food products.

Collagen can be used in protein bars to create a fluffy, marshmallow-like texture, Xavier said. It may also be a less expensive protein source than whey, which is commonly used in protein bars and powders, he added.

Collagen is not very useful for helping you meet your body’s protein needs, including building of muscle, said Stuart Phillips, a professor of kinesiology at McMaster University in Canada.

That’s because collagen is missing one key building block of protein—an amino acid called tryptophan—that is needed for making or repairing muscles or other proteins in the body.

Nutrition scientists use a scoring system to rate the quality of protein sources based on how closely their amino acids match those needed by the human body. Collagen, which is high in amino acids that the body can already

**But this protein is missing a key amino acid called tryptophan, which is needed for making or repairing muscles**

make on its own, gets a zero on this scoring system.

But whey protein gets a perfect score, as do eggs, said Kevin Klatt, a registered dietitian and an assistant professor of nutritional sciences at the University of Toronto in Canada.

That means that a bar may contain 20 grams of protein, but if collagen is one of the ingredients, it provides less of the amino acids that your body needs than a bar made with only whey protein,

Klatt said. For this reason, the grams of protein from collagen aren’t counted toward the percentage of the total daily value for protein on nutrition facts labels.

The few studies that exist on whether collagen can curb appetite don’t support much of an effect, said Heather Leidy, an associate professor of nutritional sciences at the University of Texas at Austin, US.

To get enough protein and feel full for longer, Phillips suggested focusing on whole food sources first—like Greek yogurt, eggs, beans or chicken. If you want to supplement, look for a simple protein powder or bar containing whey, soy or pea proteins and a short list of ingredients.

“Collagen would be the last thing I would look for in a bar, to be honest with you,” he said.

Dr. Taglia said patients frequently ask her about whether they should take collagen supplements, which often claim to have unique benefits for the joints, skin, hair or nails.

“I think most people are doing it because they saw it online, and they’re like, ‘This seems a lot easier than putting sunscreen on

every day,’” she said.

But it’s not clear that consuming collagen—whether it’s in a supplement or a protein bar or naturally present in foods like bone broth—boosts the collagen in your body, said Julia Zumpano, a registered dietitian at the Cleveland Clinic in Ohio, US.

**T**here’s no real harm to taking these supplements for most people, Dr. Taglia added. But she and other experts said that these claims were driven more by marketing than by science. The limited research that does exist on collagen’s benefits has largely been funded by the supplement industry. The studies are small and tend to test higher doses of collagen than those used in protein bars and other foods.

There are, however, a few known factors that prompt our bodies to produce less collagen, including smoking, not using sunscreen and consuming significant amounts of sugar.

Zumpano said people are “better off making sure you’re eating a well-balanced diet”.