

A smiling woman with long, wavy grey hair is shown from the chest up, wearing a black t-shirt. She is holding a clear plastic cup with a black straw, filled with a light-colored protein smoothie. The background is dark with some blurred green lights.

PURIS

THE DIETITIAN'S NUTRITION GUIDE TO **PEA PROTEIN**

Over the past decade, you've likely seen pea protein appearing in everything from plant-based milks to high-protein snacks. As a nutrition professional, there's a good chance your patients and clients are asking you questions about this ingredient:

- What exactly is pea protein **made from**?
- Is it **natural**?
- Is it **nutritious**?
- Does it provide all the **essential amino acids**, and are they **digestible**?
- **How much** should I eat?
- What are the **benefits**?

At PURIS, we are committed to educating brands, consumers, and nutrition experts on the value of plant-based nutrition. Pea protein can play a crucial role in filling the gaps where a whole food, plant-based diet may fall short, especially in essential nutrients.

Curious how pea protein can benefit the populations and conditions you work with?
Keep reading to discover more.

PEA PROTEIN FAQs

What exactly is pea protein **made from**?

Pea protein is made from yellow field peas (*pisum sativum*), the kind you would use to make split pea soup. This is the same species but a different varietal than garden/sweet/English peas. Both varieties contain about 20-23% protein, and field peas are lower in sugar than garden peas. This legume typically grows in cool, dry regions like the northern US and Canada. PURIS's primary growing states are Montana, North Dakota, South Dakota, and Nebraska.

Is it **natural**?

Unlike some other protein powders, most pea proteins (including all of PURIS's proteins) are extracted without the use of harsh chemicals or solvents like hexane. Additionally, PURIS's contracted farmers are encouraged to use regenerative growing practices and are forbidden from spraying desiccants such as glyphosate onto their pea crops.

Is it **nutritious**?

One 30 gram serving of PURIS pea protein provides*:

- 24 g **protein** (requirements vary)
- 4.8 mg **iron** (27-60% DV)
- 180 mg **calcium** (18% DV)
- 390 mg **phosphorus** (56% DV)

These nutrients are critical for tissue repair, immune function, energy production, bone strength, and nerve signaling. As some of them can be challenging to get enough of on a whole food, plant-based diet, pea protein helps fill in the gaps.

*Percent daily values (%DV) based on daily recommended dietary allowances (RDA): 18mg iron for females, 8mg iron for males, 1000mg calcium for healthy adults, 700mg phosphorus for healthy adults.¹

Does it provide all the **essential amino acids**, and are they **digestible**?

Pea protein contains all nine essential amino acids. It is limiting in sulfur-containing amino acids (cysteine + methionine), which are easily attainable in the diet through whole grains, nuts, and seeds. PDCAAS calculations can be used to understand the amount of pea protein needed to make up for this limitation in sulfur-containing amino acids. PURIS pea protein was found to be 100% digestible in an in-vitro model and 94% digestible in an in-vivo model.

How much should I eat?

The daily recommended intake (DRI) for protein is 0.8g/kg body weight with increasing needs depending on activity, injury, pregnancy, and other factors¹. Higher intake, up to 2g/kg body weight, has been shown to enhance muscle growth and repair². For a 200 lb. individual, this means 73-181 grams of protein per day is recommended depending on their activity level and metabolic stressors.

A standard serving of pea protein powder is approximately 30 grams, containing 24 grams of protein. Thus, 3-7.5 servings per day of pea protein would meet this person's protein needs. However, it is still recommended to consume a variety of protein sources for a balanced diet and amino acid intake.

What are the **benefits**?

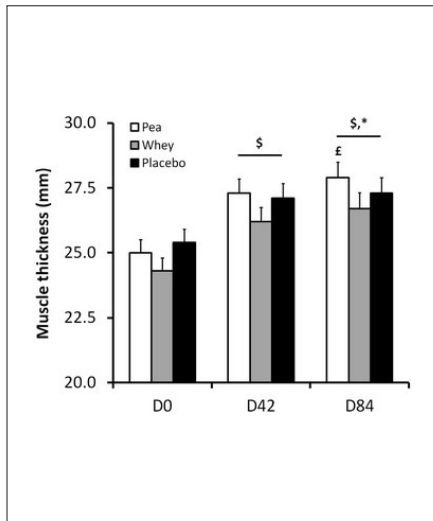
Pea protein is an easy way to increase protein intake for athletic populations aiming to maximize their strength gains, geriatric populations looking to prevent muscle loss, and GLP-1 users who have reduced appetite. It also aids people with diabetes seeking to balance their blood sugar and those with weight loss goals needing satiety. Keep reading for more nutritious benefits of pea protein!

The studies cited in this data sheet did not include PURIS protein. PURIS does not endorse any of the studies cited herein. The information in this data sheet is for information purposes only, should not be used for structure/function claims in any product and is not intended to diagnose, treat, prevent or cure any disease.

PEA PROTEIN **BENEFITS** FOR YOUR PATIENTS & CLIENTS

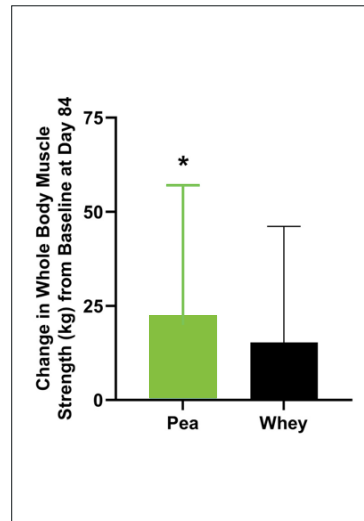
Promotes Muscle Protein Synthesis & Strength Similarly to Whey Protein

Pea protein has been shown to stimulate muscle protein synthesis similarly to whey, making it effective for increasing muscle strength and size in **athletic populations**^{3,4}. Singh et al. also found pea protein was as effective as whey protein in increasing whole body strength in **sedentary adult populations** when combined with resistance training⁵. A systematic review and meta-analysis of randomized controlled trials found no significant difference in absolute lean mass or muscle strength has been found between animal and plant protein groups⁶.



Changes in biceps brachii thickness (mm) during the experimental protocol. \$: Significant difference within each group compared with D0 ($P < 0.0001$). £: Trending towards significance compared with D42 for the Pea group only ($P = 0.09$). *: Between group comparison between D0 and D84 approaching significance ($P = 0.09$).

Babault et al. (2015)



Change in composite whole-body muscle strength from baseline at day 84 in the pea and whey protein groups. *indicates a significant within-group difference in strength from baseline ($p < 0.05$).

Singh et al. (2024)

Seamless Addition of Protein to Meet Macronutrient Needs

Higher protein intake is critical for **geriatric populations** to prevent sarcopenia and improve quality of life by enabling activities of daily living⁷. Additionally, while more research is needed on the precise macronutrient needs for **users of GLP-1 receptor agonists** (e.g., Ozempic, Wegovy), many are recommended to prioritize foods rich in protein to prevent loss of muscle mass as their energy intake decreases due to blunted appetite⁸. Pea protein can be easily added to various foods, smoothies, shakes, and more to help these populations meet their protein needs without excessive feelings of fullness. Here's how it compares to other popular protein powders⁹:

	PURIS PEA PROTEIN (80%)	WHEY PROTEIN ISOLATE (90%) ⁹	WHEY PROTEIN CONCENTRATE (80%) ⁹	SOY PROTEIN ISOLATE (90%) ⁹	SOY PROTEIN CONCENTRATE (65%) ⁹	RICE PROTEIN ISOLATE (78%) ⁹
Protein per 30g Serving	24g	27g	24g	27g	19g	23g
Calories per 30g Serving	122	111	124	101	98	106
Clean Taste	✓	✓	✓			
Builds Soil Health	✓			✓	✓	
Top 9 Allergen Free	✓					✓
Hexane Free	✓					

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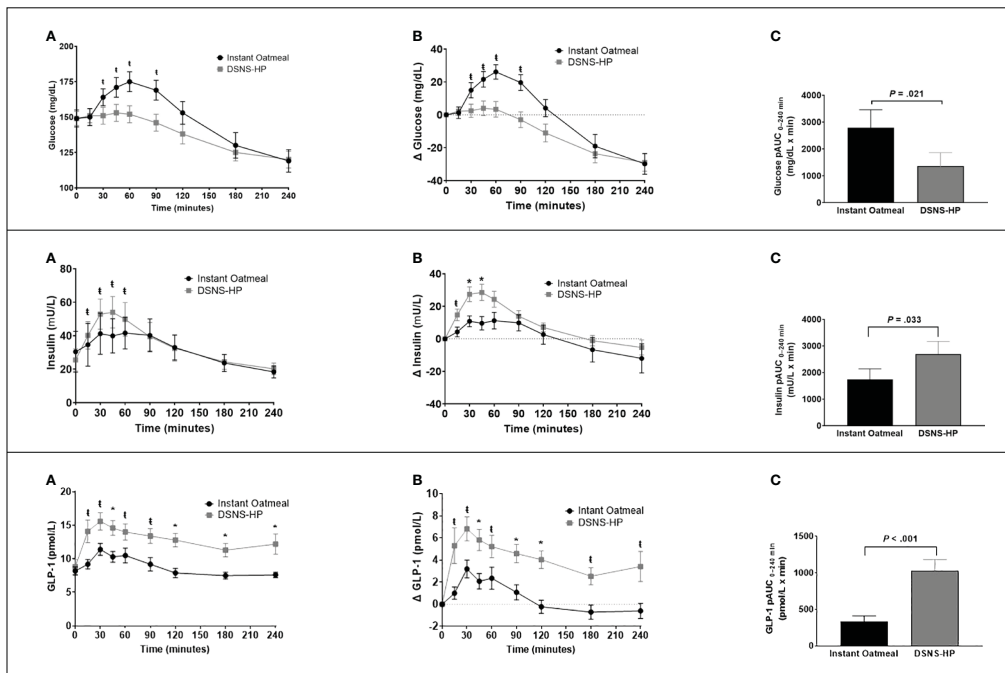
PEA PROTEIN BENEFITS FOR YOUR PATIENTS & CLIENTS (CONT.)

Attenuates Glycemic Response for Improved Blood Sugar Control

Research indicates that consuming protein, including pea protein, with carbohydrates can attenuate postprandial blood glucose spikes. A 2024 study by Thomas et al. compared a high-carbohydrate beverage containing pea protein to a placebo (high-carbohydrate beverage with no protein). They found the drink containing pea protein resulted in a lower glucose increase, greater insulin release, and higher endogenous GLP-1 secretion¹⁰. These results may indicate pea protein as beneficial for managing **diabetes and prediabetes**. In addition, Chauhan et al. discovered a functional ingredient called NRT_N0G5IJ, found in *pisum sativum*, that increased glucose uptake and decreased HbA1C in a prediabetic population¹¹.

Promotes Satiety to Aid in Weight Management

A 2020 study by Hawley et al. found that pea protein isolate promoted satiety as effectively as whey protein isolate¹². As satiety reduces feelings of hunger, this finding indicates pea protein may be a useful tool for **weight management**. Pea protein and other protein sources have shown the ability to increase GLP-1 secretion, which slows gastric emptying and enhances satiety, furthering their potential as weight loss aids¹³.



The impact of a high-protein diabetes-specific nutrition shake (DSNS-HP) on glucose response, insulin response, and endogenous GLP-1 secretion compared to an instant oatmeal control.

Thomas et al. 2024

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