

# FUN FACT

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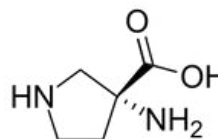
**Pumpkins** have long been valued not only as a staple of fall traditions but also for their **medicinal seeds**, which were used for centuries as natural remedies against parasites. Modern research has revealed that pumpkin seeds are more than folklore—they are a rich source of **bioactive peptides** that bridge nutrition, medicine, and therapeutics.



## Traditional roots

Pumpkin seeds were used for their anthelmintic activity, with compounds like **cucurbitin** playing a role in expelling intestinal parasites. This is a great example of a **non-canonical natural amino acid**.<sup>1</sup>

**SNHANQLDFHP**  
**PVQVLASAYR**



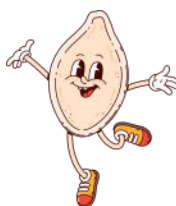
## Modern bioactive science

Enzymatic digestion of pumpkin seed proteins liberates short-chain peptides with antioxidant, antimicrobial, hypoglycemic, and antihypertensive properties.<sup>2-4</sup>



## Standout discovery

From pumpkin seed meal, researchers recently isolated two **peptides**—**SNHANQLDFHP** and **PVQVLASAYR**—with strong angiotensin-converting enzyme (ACE) inhibitory activity, making them promising leads for blood pressure regulation and cardiovascular health.<sup>5</sup>



## Future promise:

Antioxidant-rich pumpkin peptide hydrolysates also show excellent functional properties—such as emulsifying, foaming, and stability—which supports their use in functional foods and nutraceutical formulations. Their radical scavenging capacity is linked to enrichment in hydrophobic and aromatic residues such as Tyr, Phe, and Pro, explaining their potency.<sup>4</sup>



**THE PUMPKIN'S STORY RUNS FROM AUTUMN DECORATIONS TO THE PEPTIDE LAB BENCH, EMBODYING THE PDHC SPIRIT OF CONNECTING TRADITION, INNOVATION, AND TRANSLATION.**

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