

# PINNOTHIN®

THE NEW BREAKTHROUGH  
APPETITE SUPPRESSANT



PinnoThin®

**Stepan**<sup>S</sup>®  
Lipid Nutrition  
*The Natural Way to Better Health*

## MEETING THE HEALTH NEEDS OF A GROWING MARKET

It's an unfortunate but undeniable fact that more people are now overweight than ever before. Being overweight can cause issues with one's self-image, but more importantly it also poses a considerable health risk. Obesity is actually set to replace smoking as the most important cause of heart disease today. It also increases the risks of a whole range of other serious health problems, including type 2 diabetes, stroke, kidney failure, gallbladder disease, hypertension and cancer. In the face of this threat to an increasing number of people's health, there is a significant and rapidly growing market for food additives and dietary supplements that help tackle this problem. Currently, the weight loss segment is already one of the largest health condition markets in the United States, with expected market growth of almost 5%. Appetite suppressants now account for 13% of the US slimming aids market.

## TARGETING WEIGHT GAIN AT THE SOURCE

PinnoThin®, a unique product developed and patented by Stepan Lipid Nutrition, has been scientifically proven to suppress the desire to eat. A 100% natural, vegetable-based product, PinnoThin® works by targeting weight gain at the source. By promoting a feeling of fullness, it helps reduce food consumption, thus preventing the excessive intake of calories. PinnoThin® is available in free fatty acid (FFA) form as well as triglyceride (TG) form, which means it is suitable for a wide variety of applications, from dietary supplements to foods. It can be taken as an appetite suppressant either before a meal or in-between meals to prevent the desire to snack. But it can also be used to create food products that can actually play an active role in helping people lose weight.

## 100% NATURAL APPETITE SUPPRESSANT

The active ingredient of PinnoThin® is pinolenic acid, which is derived from the nuts of the native Korean pine tree (*Pinus koraiensis*). The Korean pine grows in the mountains of Korea, Japan, Siberia and Manchuria (China), and its nuts contain more than 40 times as much pinolenic acid as other common types of pine nuts.



## HOW DOES IT WORK?

Appetite is a complex mechanism, controlled by many different factors. One of the most important factors is the role played by hormones. These send messages to our brains, either triggering or reducing feelings of hunger. PinnoThin® works by stimulating the release of two hunger-suppressing peptide hormones, CCK (cholecystokinin) and GLP1 (glucagon-like peptide 1). These hormones send signals of satiation to the brain, significantly reducing the urge to eat.



## ENHANCING YOUR VALUE

PinnoThin® is available as an oil, which means it can be used in many applications. This makes it possible to easily include it in a wide variety of food products, offering food producers the perfect means to differentiate their products from the competition and to command higher margins. PinnoThin® enhancement can provide added value to almost any food or beverage—and because it's a 100% vegetable ingredient, it's also ideal for vegetarian products. A general overview of potential applications includes:

- Beverages: milk, fruit juices, yogurt drinks, etc.
- Spreads: margarine, butter, etc.
- Bakery: bread, biscuits, cakes, etc.
- Others: salad dressings, chocolates, nutrition bars, breakfast cereals, etc.

# **PINNOETHIN<sup>®</sup>**

**REDUCING CALORIC INTAKE  
THE NATURAL WAY**



**SCIENTIFICALLY PROVEN  
TO SUPPRESS APPETITE**



### GIVING YOU ALL THE SUPPORT YOU NEED

Creating and introducing a new health-food product to the market is never a simple process and there are many factors that need to be considered: regulatory requirements, processing parameters, consumer trends, promotion, marketing and more. Our Stepan Lipid Nutrition experts provide sound advice on all fronts—from formulas to technical assistance and legal matters. We make it easy for you to create the best product possible, helping to ensure its market success.



### Turnkey solutions and application support:

Your processes, other ingredients in the product and even product packaging can all play a role in determining the best way to incorporate PinnoThin® into your product. With decades of experience in applications and processes, we can advise you every step of the way, helping you to maximize your product's visual and sensory appeal. Our turnkey solutions give you the quickest time to market possible, keeping you ahead of the competition.

**Higher sales through consumer insights:** The way people approach dieting and “nutritional fitness” can vary widely between different countries and cultures. If someone in France wants to lose weight, are they more likely to skip certain meals, or substitute their usual fare with lower-calorie food? What would an American be likely to eat less—or more—of? Stepan Lipid Nutrition can provide valuable insight into consumer needs and behavior, and advice on which products work best where.

**Expert regulatory advice:** When you sell customers a product designed to improve their health and fitness, you're making promises. It's extremely important that they be clearly and appropriately made. PinnoThin® has legal claim to numerous important benefits, but how these may be communicated differs from market to market. Stepan Lipid Nutrition provides expert advice on how to get your message across most effectively. There's no need to call in external consultants—we're completely capable of providing you with the expert advice you need.



**Scientific and nutritional back-up:** The many ways PinnoThin® works in the body have recently been revealed by scientific research. We can back up our claims with sound scientific information and research results—which means you'll be able to do so, too.



**Marketing tools and assistance:** The use of PinnoThin® in food products and supplements is still in its infancy. Stepan Lipid Nutrition offers various valuable tools in order to communicate with and inform consumers about how PinnoThin® products make it easier to achieve the physical goals they set for themselves.

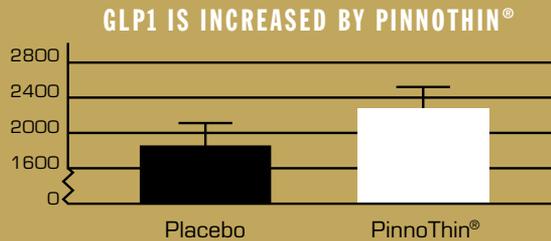
### CONTACT US

Would you like to know more about PinnoThin®? We'd be happy to provide you with any additional information you need as well as personal consultation on how our products can improve your products—and your business. You can also visit [www.lipidnutrition.com](http://www.lipidnutrition.com).

# PROVEN RESULTS, NEW OPPORTUNITIES

Clinical research has already confirmed the effectiveness of PinnoThin®. When Stepan Lipid Nutrition tested PinnoThin® in a randomized, double blind cross-over trial, the results were immediately apparent:

PinnoThin® effectively suppresses appetite and promotes a feeling of fullness.



Thirty minutes after taking PinnoThin®, the test subjects reported significantly less desire to eat than subjects who had taken an olive oil placebo. Within 30-60 minutes, PinnoThin® had also significantly increased the amount of CCK and GLP1 hormones in the blood.

These two hormones are naturally-produced appetite suppressants: CCK is usually released into the blood as a response to the presence of fat or protein in the duodenum; GLP1 is usually released in response to carbohydrate or fat in the ileum. When food is digested in the gut, these appetite-suppressing hormones are released, decreasing our desire for more food. By increasing the levels of these two hormones, PinnoThin® promotes a feeling of satiation and thus effectively reduces food intake.

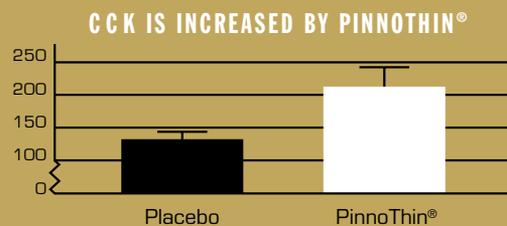
## PATENTED AND APPROVED

PinnoThin® is a unique breakthrough appetite suppressant—no other appetite suppressant on the market today stimulates the production of both CCK and GLP1, which are objective parameters for satiety—and it is protected by several international patents for specific uses in food, food supplements, pharmaceuticals, and as a health component. PinnoThin® has been proven for the following claims:

- PinnoThin® promotes the feeling of satiety
- PinnoThin® suppresses the desire to eat
- PinnoThin® reduces prospective food intake
- PinnoThin® significantly increases the release of CCK
- PinnoThin® significantly increases the release of GLP1

Our customers can freely communicate these benefits of PinnoThin® on nutritional supplement and food product labels.

PinnoThin® is only available from Stepan Lipid Nutrition.





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