

# QÜELL® Fish Oil Ultra SPM

INCLUDES SPECIALIZED PRO-RESOLVING MEDIATORS (SPMs)

Contains a unique blend of marine oils, concentrated for SPMs, EPA, DHA and DPA to support:



The natural resolution of the inflammatory process<sup>‡</sup>



Immune homeostasis<sup>‡</sup>



Cardiovascular health<sup>‡</sup>

OFFER YOUR PATIENTS AN ADVANCED FISH OIL WITH GUARANTEED SPM POTENCY.<sup>‡</sup>



## WHAT ARE SPMs?

**Specialized Pro-Resolving Mediators (SPMs)** are a group of compounds derived from marine oils that play a **critical role in the natural resolution of the inflammatory process**, including immune cell recruitment, cellular function and cytokine production.<sup>‡</sup>

The body is able to produce SPMs from regular fish oil, however, this multi-step process is inefficient and can be compromised. In two studies involving healthy subjects, supplementation with 4-17 grams of regular fish oil daily did not produce significant increases in SPMs.<sup>1</sup>

## MORE ABOUT OMEGA-3s

The omega-3 fatty acids **EPA/DHA** (eicosapentaenoic acid / docosahexaenoic acid) have been associated with numerous benefits, including healthy lipid metabolism, cytokine balance, joint health and cognitive function.<sup>‡</sup>

The omega-3 fatty acid **DPA** (docosapentaenoic acid) is associated with vascular health. In a pool of 19 studies and over 45,000 individuals, DPA was the long-chain essential fatty acid most associated with cardiovascular health.<sup>‡1</sup>

Different families of resolvins are derived from EPA, DHA, and DPA, and each mediator exerts unique biological actions.

- **Resolvin E1**: regulating platelet activation<sup>‡</sup>
- **Protectins**: supporting immune function<sup>‡</sup>
- **Maresins**: maintaining tissue health<sup>‡</sup>

1. Del Gobbo LC, et al. *JAMA Intern Med.* 2016, 176: 1155-66.

<sup>‡</sup>Not all inflammation is associated with disease states. The body's inflammatory response to life's occasional, normal stressors is important for optimal health.

## PRODUCT DETAILS

TAKE 1 SOFTGEL DAILY, WITH FOOD.

Serving Size 1 Softgel

Amount Per Serving	
Calories	10
Total fat	1 g
Cholesterol	5 mg
Supercritical CO <sub>2</sub> Marine Oil Concentrate	1090 mg
Providing:	
Total Omega-3 Fatty Acids	560 mg
EPA (eicosapentaenoic acid)	225 mg
DHA (docosahexaenoic acid)	200 mg
DPA (docosapentaenoic acid)	45 mg
Specialized Pro-Resolving Mediators (SPMs) (including 18-hydroxyeicosapentaenoic acid (18-HEPE), 17-hydroxydocosahexaenoic acid (17-HDHA), and 14-hydroxydocosahexaenoic acid (14-HDHA))	300 mcg

Other ingredients: Gelatin (capsule), glycerin, purified water, natural lemon flavor, natural mixed tocopherols

**Contains:** Fish and Marine Oil (anchovy, squid, sardine, herring, mackerel)

### FORMULA

202691

### SIZE

60 Softgels

Denotes private label-eligible formula

## WHY NOT JUST REGULAR FISH OIL?



Most fish oils are not concentrated and standardized to have guaranteed potency of SPMs. QÜELL® Fish Oil Ultra SPM contains 300 mcg of SPMs per softgel



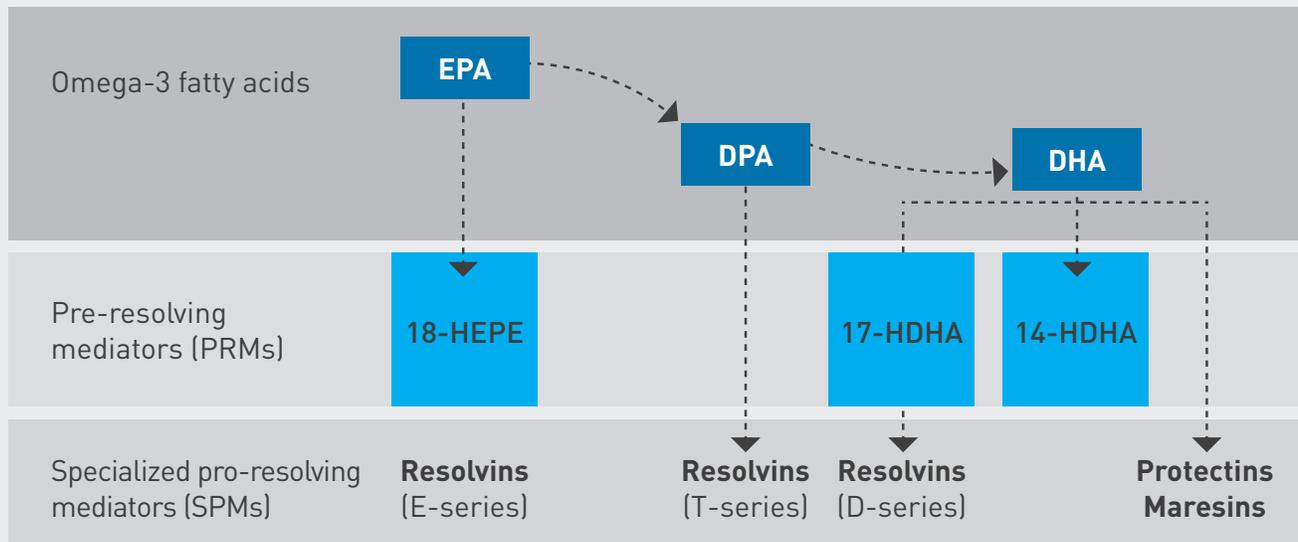
Conversion of omega 3s to SPMs varies from person to person, and some studies show significant inefficiency in conversion - that's why we offer SPMs in our new formula



Research findings involving healthy subjects have shown that supplementation with up to 17 grams of fish oil daily did not produce significant increases in SPMs<sup>2</sup>



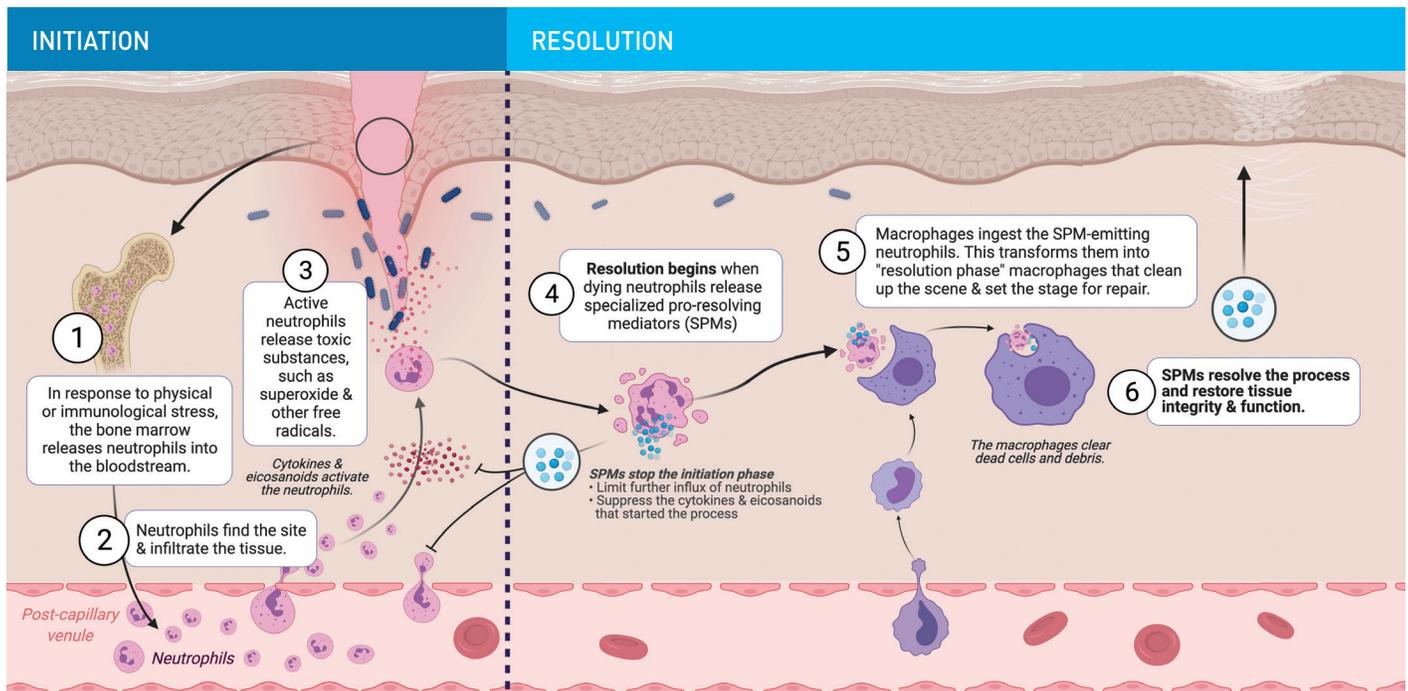
## BIOSYNTHESIS OF SPECIALIZED PRO-RESOLVING MEDIATORS (SPMs)



Omega-3 fatty acids are precursors of the pre-resolving mediators (PRMs) 18-HEPE, 17-HDHA and 17-HDHA, which are key intermediates in the formation of SPMs. Many enzymatic steps are involved in the synthesis of SPMs, and some of these steps may be inefficient because of genetic and/or metabolic factors.

2. Skarke C, et al. Bioactive products formed in humans from fish oils. *J Lipid Res.* 2015 Sep;56(9):1808-20.

# THE INFLAMMATORY RESPONSE

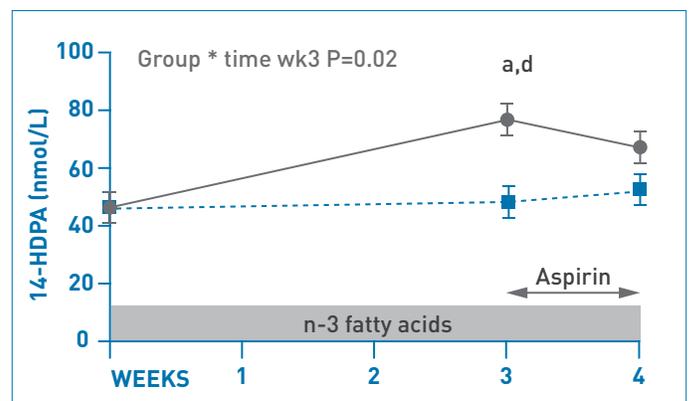
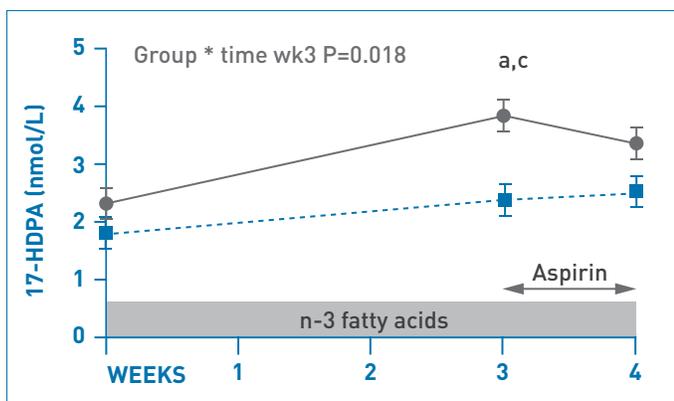
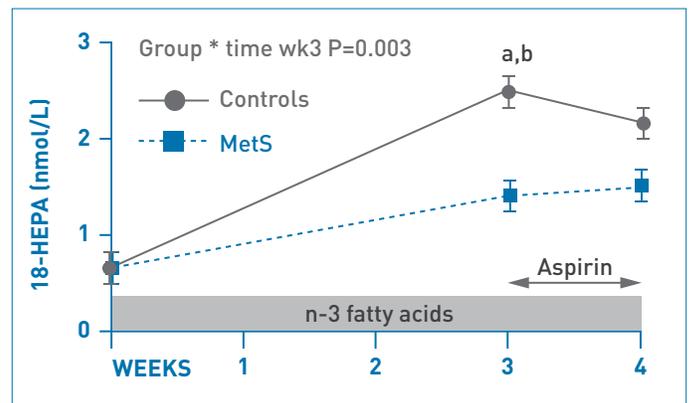


In response to an immune stressor, neutrophils are mobilized from the bone marrow. These cells enter the site through leaks in the vessel wall. Neutrophils are activated by prostaglandins (such as PGE2) and other mediators. This allows neutrophils to release cytotoxic free radicals and proteases. Although these substances are necessary, they can damage surrounding tissue if their release continues over a prolonged period. Resolution is an active, coordinated process that begins when apoptotic (dying) neutrophils release SPMs, which halt further neutrophil activity and initiate a return to homeostasis. When macrophages phagocytose the SPM-emitting cells, they become resolving cells that clean up the scene and set the stage for repair. SPMs play many other active roles in the restoration of homeostasis.<sup>‡</sup>

## METABOLIC FACTORS AND SPMs

Clinical research has indicated that metabolic factors may influence levels of SPM precursors in response to fish oil supplementation.<sup>3</sup>

- 22 subjects with metabolic syndrome (MetS) and 21 controls were supplemented with 2.4 g fish oil/day for 3 weeks, and then the addition of aspirin for week 4
- MetS subjects had lower levels of the 18-HEPE, 17-HDHA, and 14-HDHA E- and D- series resolvin precursors in response to omega -3 fatty acid supplementation indicating compromised formation. The addition of aspirin did not alter plasma SPMs.



3. Barden AE, et al. Am J Clin Nutr. 2015 Dec;102(6):1357-64.

<sup>‡</sup>These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

# Offer your patients access to this unique formulation to support the natural resolution of the inflammatory process<sup>‡</sup>

Visit [douglaslabs.com/quell-ultra-spm](https://douglaslabs.com/quell-ultra-spm) for more information



Interested in  
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**QÜELL® Fish Oil**  
**Ultra SPM?**

Call **800.245.4440**  
to create your label  
and place your order.



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