**speak Formulation**

**Developed from ground-breaking research**

SpeechNutrients speak is the result of nine years of real life experiences from parents and their children who took action based on ground-breaking research on how essential fatty acids combined with vitamin E impact child development. After the exact formula was specified, the omega-3 experts at SpeechNutrients partnered with the world's leading producers to find the purest forms of ingredients in their appropriate biochemical form for optimal absorption and utilization. The result is SpeechNutrients speak.

**Parents were looking for nutritional support for their children with special nutritional needs**

Parents began supplementing their children with purified essential omega-3 fatty acids. These parents were able to exchange information via the internet, support each other, and share their successes. Their tenacious spirits and positive experiences illuminated useful information that contributed to further research.

**A noted pediatrician became involved**

Knowing the benefits of omega-3 fats, a noted pediatrician directed her investigative skills to go further. As a result of her work and discoveries, she developed the precise formula that led to the patent pending formulation, now available as SpeechNutrients speak.

**The SpeechNutrients speak formulation was exclusively licensed to SpeechNutrients from Children's Hospital & Research Center Oakland (CHRCO).**

After the formulation was developed and pending patent, SpeechNutrients researched and identified the purest ingredients in their appropriate forms for optimal absorption and utilization. Because this supplement was created for children, many with sensory and allergy issues, the ingredients had to be natural and guaranteed hypoallergenic.

Knowing that parents were struggling to find and combine the 7 different nutrients included in the SpeechNutrients speak formula, SpeechNutrients simplified the process by combining all into one easy to use supplement. SpeechNutrients speak is the only product of its kind.

**Purity**

SpeechNutrients speak contains highly purified and concentrated all-natural nutrients. The omega-3 contained in speak is sourced from wild caught, sustainable, exceptionally pure omega-3 concentrates. Utilizing the utmost care and precision in manufacturing and analyzing omega-3 concentrates, the omega-3 meets or exceeds all US and EU standards for purity, complies with California Prop 65, and meets and exceeds the GOED Monograph (Global Organization for EPA and DHA Omega-3). This ensures that the SpeechNutrients speak formulation contains the purest grade oils with the ideal ratio of active EPA and DHA.

**speak does not contain:**

* Mercury
* PCBs
* Heavy Metals
* Lead
* Arsenic
* Pesticides
* Gluten
* Saturated fats
* Trans-fats
* Mold
* Artificial flavors
* Artificial colors
* Artificial sweeteners
* Mystery "filler" ingredients

**Ultra-purified and Concentrated**

* **We know the source**: Our principal supplier can certify when and where the fish is caught. The approved fishery has been certified sustainable by the Marine Stewardship Council since 2005 (and recertified in 2010).  The processing plant is built specifically for fish oil production, and it is thoroughly sanitized and fully automated with a computerized control center.
* **Time and temperature matter**: High-grade fish oil cannot be heated above 180 degrees C because trans fats and impurities begin to form and the omega-3 fats can be altered. High-grade fish oil should not be exposed to heat for more than a few seconds. To maintain exceptional product integrity, we use a very low pressure vacuum and temperatures below 100 degrees for less than one second.
* **Our product is highly concentrated**: Our fish oil is moleculary distilled and refined to a high concentration of omega-3s, making our oil a potent source of these healthy, essential fats required for human health. Finally, natural antioxidants are added. Our fish oil is held in an oxygen-free environment during the entire process. Our fish oil is then packaged and sealed immediately, ensuring its freshness and potency. Our product is guaranteed to be top-quality, delivering all the benefits of omega-3 in an effective, convenient capsule or emulsion.

**What are Omega-3 Fatty Acids?**

Omega-3 fats are unique and essential dietary fats.  They are not made in the body and must be consumed through diet and supplements.  EPA and DHA are the omega-3 fats found in fish and fish oil and are considered the most functional omega-3 fats.  While some consider omega-3 fats to be a vitamin because they are required in the diet, they are not formally recognized as vitamins.  Instead, they are called essential dietary fats.

EPA and DHA work individually and together to support neurological function and improve cellular activity.  Both EPA and DHA work in cell membranes.  Healthy cellular metabolism is central (i.e. critical) for normal functioning of all biological (i.e. human) pathways.  Specifically, EPA resides in cell membranes and supports healthy cellular metabolism.  Without adequate EPA, inflammatory pathways are increased and this compromises normal cellular function.  There is no dietary substitute for DHA.  DHA is required for normal and healthy brain and nerve development and maintenance.

**What is vitamin E?**

Vitamin E is a family of fat-soluble vitamins that work in the body primarily as antioxidants.  They are considered valuable and important vitamins for this reason. The richest food sources of vitamin E are nuts and oils.

While 8 forms of vitamin E exist in various amounts in foods (4 forms of tocopherols and 4 forms of tocotrienols), nearly all of the research in humans has focused on the d-alpha tocopherol form.  It exists in the body in the greatest amount. More recently, we have learned about the importance of gamma-tocopherol and the importance of balance between these 2 forms of vitamin E.

**About d-alpha tocopherol:**

* It is transported and stored in blood and tissues and this is where it works as an antioxidant.
* As an antioxidant it protects body tissues (cells) from damage that occurs as a result of normal metabolism.  Our bodies, as living organs, are constantly in a state of flux and d-alpha tocopherol is simply a part of the machinery designed to maintain health and normal regeneration of cells.  Said another way, d-alpha tocopherol protects cells from oxidation.
* As an antioxidant, it works with other fats, such as fish oil, to prevent oxidation and thereby supports cellular health.
* It also works to maintain healthy blood vessels.
* Supplementing with d-alpha tocopherol increases the need for gamma-tocopherol and supplementing with both improves the function of both.
* It is measured in International Units (IU) and is the form of vitamin E included in the Dietary Reference Intake.
* It is available in natural (d-alpha) or synthetic (d,l-alpha) forms.

**About gamma-tocopherol:**

* Like d-alpha tocopherol, it works as an antioxidant but gamma-tocopherol is structurally different from d-alpha and works in different pathways in the body.
* Supplementing with d-alpha tocopherol increases the need for gamma-tocopherol and supplementing with both improves the function of both.
* It is measured in milligram (mg) units.

**Why are both d-alpha and gamma-tocopherols in SpeechNutrients speak?**

SpeechNutrients speak has been carefully formulated to provide the optimal amount of both d-alpha and gamma tocopherols that are important for individuals with certain nutritional needs. Although the reasons are unclear today, emerging research indicates that these individuals appear to have an increased need for both of these antioxidants and at the same time, may not absorb them well. Further, d-alpha and gamma tocopherols improve the actions of omega-3 fats, and act as potent antioxidants. SpeechNutrients speak contains the natural forms of d-alpha and gamma tocopherol.

In summary:  d-alpha and gamma work together as key antioxidants and work along with omega-3 fats to support neurological health and provide essential nutrition.

**What is vitamin K?**

Vitamin K is a fat-soluble vitamin with various functions in the body.  In the past 10 years, we’ve learned that vitamin K has roles in maintaining heart and bone health, as well as being a critical component for normal and healthy blood clotting. There are 3 forms of vitamin K, but only K1 and K2 are consumed by humans as vitamins.  Vitamin K1 is found in plants, and vitamin K2 is found in animal products.  They both have unique and important functions.

**Why is vitamin K in SpeechNutrients speak?**

Vitamin K1 and vitamin K2 are included in SpeechNutrients speak primarily to maintain nutrient balance. This is particularly importan**t** with long-term supplementation. It is important to support a proper balance between vitamins E and K.  Because individuals supplementing with SpeechNutrients speak may have an increased need for vitamin E, this in turn may increase the need for vitamin K. SpeechNutrients speak contains the natural forms of vitamins K1 and K2.

**What is GLA?**

GLA (gamma linolenic acid) is an omega-6 fatty acid derived from borage oil, and it works to support the EPA and DHA found in omega-3 fish oil.

**Some basics On the Making of SpeechNutrients speak:**

Serving size: 2 capsules, 3 mL of oil, or 1 Tbsp of speak Smooth, providing 7 concentrated and pure nutrients, for ease and convenience.

Flavor: Based on results from child tasting panels, orange was selected for the speak Smooth and lemon was selected for the Pure Oil.

Amount of flavor: We avoided over-flavoring SpeechNutrients speak so that it can be easily blended into foods, such as yogurts, pudding, etc. We wanted enough flavor to give a pleasant but mild taste.

Purity: We use the highest quality ingredients to keep SpeechNutrients speak pure and hypo-allergenic.

Cost: SpeechNutrients speak costs about 50% less than purchasing the ingredients individually.

Vitamin E: SpeechNutrients speak contains increased vitamin E to provide important antioxidant support and protection for growing nerve and brain cells. Among other things, the vitamin E enables the essential omega-3 and 6 fats to work better. Almost all fish oil products contain a small amount of vitamin E as a natural preservative only which provides virtually no physiological benefits. The higher amount of vitamin E found in speak addresses the nutritional needs of certain individuals and is an important component of the unique speak formulation.