Polyunsaturated fatty acids (PUFAs)

**Omega-6**
- grains
- vegetable oil
- beef
- chicken
- pork
- linoleic acid (LA)
- arachidonic acid (ARA)

**Omega-3**
- supports EPA/DHA status
- alpha-linolenic acid (ALA)
- eicosapentaenoic acid (EPA)
- docosapentaenoic acid (DPA)
- docosahexaenoic acid (DHA)

**Actual Ratio:** 20:1 in standard American diet*

**Ratio to Not Exceed:** 4:1 for positive effects

**Increasing Risk of Chronic Inflammation:**

*Refer to the original document for detailed information and context.
eicosapentaenoic acid (EPA)
- decreases triglycerides
- anti-depressant and anti-anxiety effects
- supports the resolution of inflammation

docosapentaenoic acid (DPA)
- reduces platelet aggregation
- improves lipid metabolism
- supports endothelial cell migration
- supports neural health
- serves as depot for EPA and DHA
- supports the resolution of inflammation

docosahexaenoic acid (DHA)
- decreases triglycerides, increases HDL cholesterol
- supports healthy blood pressure levels
- supports cognitive development and performance
- supports the resolution of inflammation

THE stats

- According to NHANES 2003-2008, shows majority of Americans don't meet recommended level of EPA/DHA.

- 28MILLION* years of life lost annually worldwide to conditions related to inadequate omega-3 intake.

- Omega 3 deficiency among the TOP 10 preventable causes of all-cause death.

- For primary prevention of cardiovascular diseases, the American Heart Association recommends eating at least 2 SERVINGS of fatty fish per week, which is equivalent to 500 mg per day of DHA+EPA.

*approximate
Benefits of Extended Spectrum OMEGAS

There are many different kinds of important dietary fats. It is important to balance healthy lipid intake from the entire omega family from conventional sources of food.

### Omega-3
- Alpha-linolenic acid (ALA)
- Eicosapentaenoic acid (EPA)
- Docosapentaenoic acid (DPA)
- Docosahexaenoic acid (DHA)
- **Health Benefits**
  - Healthy inflammation
  - Cardiovascular health
  - Cognitive function
  - Precursors of endocannabinoids and specialized pro-resolving mediators

### Omega-6
- Linoleic acid (LA)
- Arachidonic acid (ARA)
- **Health Benefits**
  - Healthy inflammation
  - Cardiovascular support

### Omega-7
- Palmitoleic acid (PA)
- **Health Benefits**
  - Healthy lipid levels
  - Improved insulin sensitivity
  - Healthy inflammation

### Omega-9
- Oleic acid (OA)
- **Health Benefits**
  - Cardiovascular support
Benefits of DHA
Omega 3 Fatty Acids

ACROSS
LIFE STAGES

Benefits of DHA:
- Omega-3 fatty acids are important starting components for the formation of special lipid mediators that help resolve inflammation.

Pregnancy
- Supports a healthy pregnancy
  - Improves gestation length
  - May decrease risk of postpartum depression
  - Supports DHA levels in maternal blood and breast milk
  - Provides long-term cognitive and visual benefits of offspring

Infancy & Childhood
- Brain & eye development & function
  - Improves visual acuity
  - Promotes cognitive performance
  - Benefits immune functions

Childhood & Adulthood
- Heart health
  - Lowers triglycerides, blood pressure, heart rate, & platelet aggregation
  - Increases HDL cholesterol
  - Improves blood vessel function

Adulthood
- Brain & eye function
  - Supports normal cognitive function
  - Correlated with reduced risk of dementia & Alzheimer's disease
  - Low levels of omega-3 associated with increased risk of age-related macular degeneration
A Range of Options
Available Amounts of Omega-3 Fatty Acids

FISH OIL
Contains omega-3, natural metabolites, and other vitamins
Prevention:
For dietary balance and to fill dietary gaps
calamari oil
cod liver oil
tuna oil

REFINED FISH OIL / CONCENTRATED OMEGA-3
Key beneficial components are in higher concentrations
Early health concerns:
For dietary balance and use in early stages of health issues
concentrated omega-3 (EPA+DHA)

CONCENTRATED EXTENDED SPECTRUM OMEGA-3
Biologically more active compounds
Extended spectrum of omegas (3,6,7,9)
Active health management
with condition specific benefits:
• Support endocannabinoid and immune systems
• Target health issues (heart disease, cognition, mood)
concentrated omega-3 (EPA, DHA, EPA+DHA)