# Page 1 of 3

Date:

**Omega 3 Test Report** 

ID: Subject:

Sample Date: Receipt Date:

	Result (%)	Typical USA% Control	Reference Range	% Control	<u>Target</u>
Total Omega 3 Score	7.9	4.8	(1.9-25.4)	165	> 9%
% Omega 3 in HUFA	42	24	(6.1-74.7)	179	> 50%
% Omega 6 in HUFA	58	76	(25.3-93.9)	76	< 50%
Omega 3 Index	7.8	4.2	(1.2-26.9)	186	> 8%
Omega 6/Omega 3 Ratio	5.7	8.1 to 1	(1.0-25.6)	70	< 5:1
AA/EPA Ratio	4.6	18.3 to 1	(0.4-106.7)	25	<5:1
Omega 3 Family					
ALA (18:3ω3)	0.8	0.5	(0.05-3.2)	158	
EPA (20:5ω3)	1.8	0.6	(0.2-12.9)	305	>3%
DPA (22:5ω3)	1.4	1.0	(0-3.4)	136	>1%
DHA (22:6ω3)	3.8	2.6	(0.9-8.9)	147	>4%
Omega 6 Family					
Total Omega 6 Score	45.2	39.0	(21.5-50.7)	116	
LA (18:2ω6)	35.0	25.1	(10.9-38.3)	139	
DGLA (20:3ω6)	8.0	1.3	(0-2.6)	65	
AA (20:4ω6)	8.3	10.8	(3.9-22.3)	77	

<sup>\* =</sup> Flagged Value Outside of **Reference Range** 

### Omega 3 Family

ALA = alpha Linolenic acid (Plant Omega 3)

**EPA = Eicosapentaenoic Acid (Marine Omega 3)** 

DPA = Docosapentaenoic Acid (Marine Omega 3)

DHA = Docosahexaenoic Acid (Marine Omega 3)

Omega 3 Score = ALA, EPA, DPA, DHA

#### Omega 6 Family

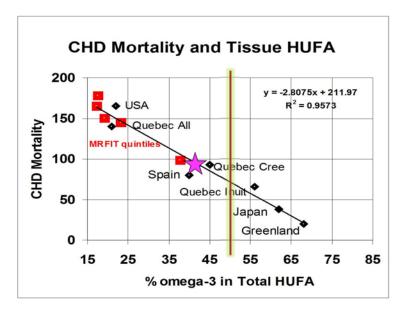
LA = Linoleic Acid (Plant based omega 6; soybean oil, walnuts

DGLA = dihomo-gamma-linolenic Acid

AA = Arachidonic Acid

Omega 3 in HUFA = 42%





US Average = 24%

**Optimal** > 50%

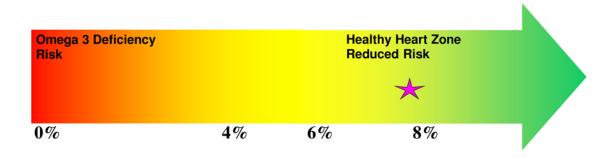
LANDS' Figure: Coronary Heart Disease (CHD) Mortality versus % of omega 3 in HUFA. HUFA stands for Highly Unsaturated Fatty Acids. HUFA are the precursors of hormone like compounds call eicosanoids or prostaglandins that drive inflammation.

In the figure, as the % in omega 3 HUFA INCREASES there is a strong linear reduction in CHD mortality. This is based on studies done in various populations and based on research by Dr Bill Lands. The target score for this test is 50% (or higher) which represents a balance of omega 3 and omega 6 per Dr Lands.

Omega 6 HUFA are potent mediators of inflammation while Omega 3 HUFA are less so. Omega 3 HUFA compete with Omega 6 HUFA based on Dr Lands' research. Omega 3 HUFA are thus seen as anti-inflammatory.

## Total Omega 3 7.9 % US Average 4.8%

Desired >9%: correlates with a 90% risk reduction for sudden cardiac death (Albert et al)



#### How Much Omega 3 should I try to get in my diet?

Experts recommend eating 1000mg to 2000mg of EPA and DHA per day and 2000mg of ALA per day with fish, fish oil and ground flax seed. Your provider may reccommend more or less. Green vegetables are also a good source of plant based omega 3. Vegetables typically have a balanced ratio of omega 3 and omega 6 and are also a rich source of antioxidants, fiber and nutrients. Experts also recommend avoiding omega 6 rich oils like soybean, corn, peanut and safflower that compete with omega 3 for metabolism.

Target Value

