



# Diagnostic Tools to measure, analyze and regulate your health



# 1. FATTY ACIDS Measure, analyze and regulate

# Diseases or conditions that involve inflammation are all targets for marine Omega-3 fatty acids

Rheumatoid arthritis

Crohn's disease

**Ulcerative** colitis

**Cystic fibrosis** 

**Psoriasis** 

Lupus

**Multiple sclerosis** 

Type-1 diabetes

Childhood asthma

Adult asthma

**Allergic diseases** 

**Atopic diseases** 

COPD

**Atherosclerosis** 

Acute cardiovascular events

**Response to surgery** 

Major injury and trauma

**Sepsis** 

**Neurodegenerative diseases** 

Some cancers

**Body wasting** 

- sarcopenia, cachexia

**Fatty liver disease** 

Obesity

. . . . . . .

#### 2 key measurements

Major long-term RCT research world-wide has shown that increasing Omega-3 and reducing Omega-6 has significant health benefits

Omega-3 Index & Omega-6/3 Ratio proposed by: Professor William Harris Professor Clemens von Schacky

\* % of total Fatty Acids

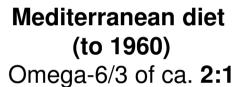
#### **Evolution of the Omega-6/3 ratio**



Stone Age Omega-6:3



Inuit
Omega-6/3 of ca. **0.8:1** 





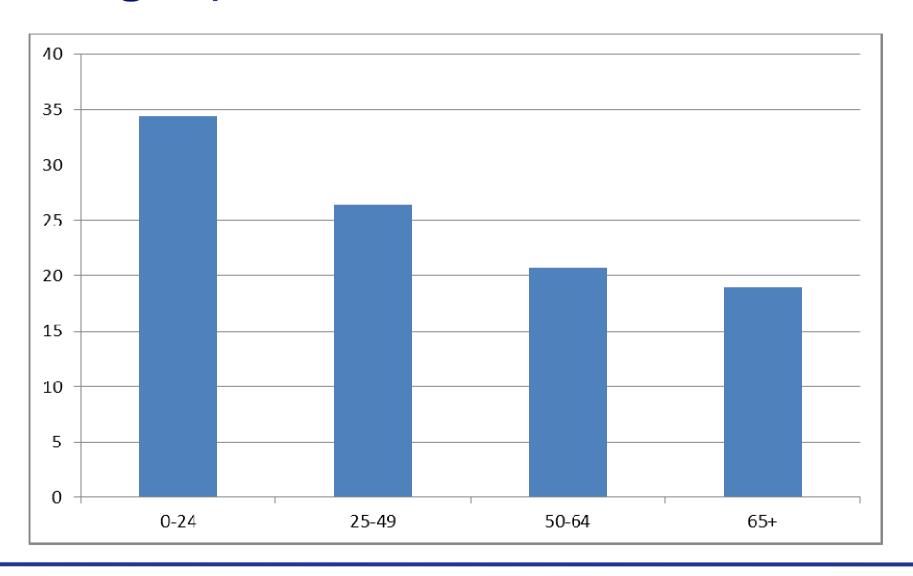


Western world Omega-6/3 of 15+:1



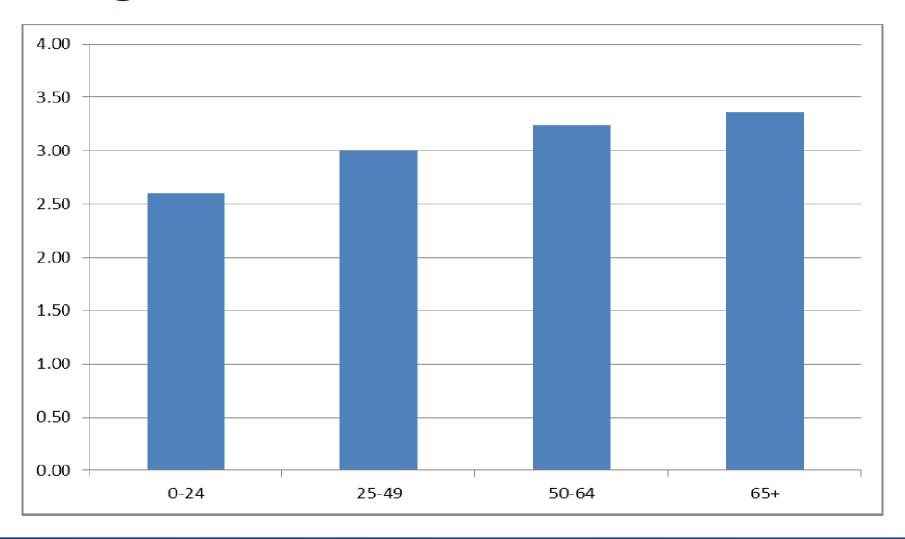


### Omega-6/3 Ratio – in UK



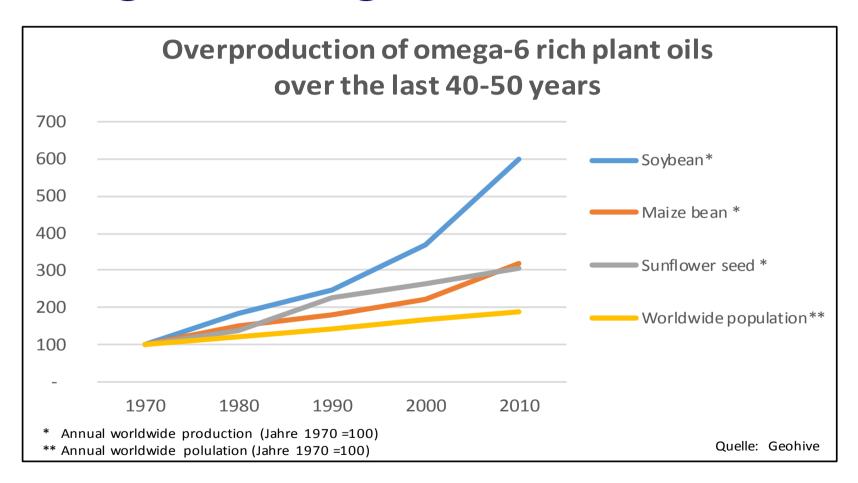
Source: 2,000 tests by an accredited UK Test Laboratory in 2012-13

#### Omega-3 Index - in UK



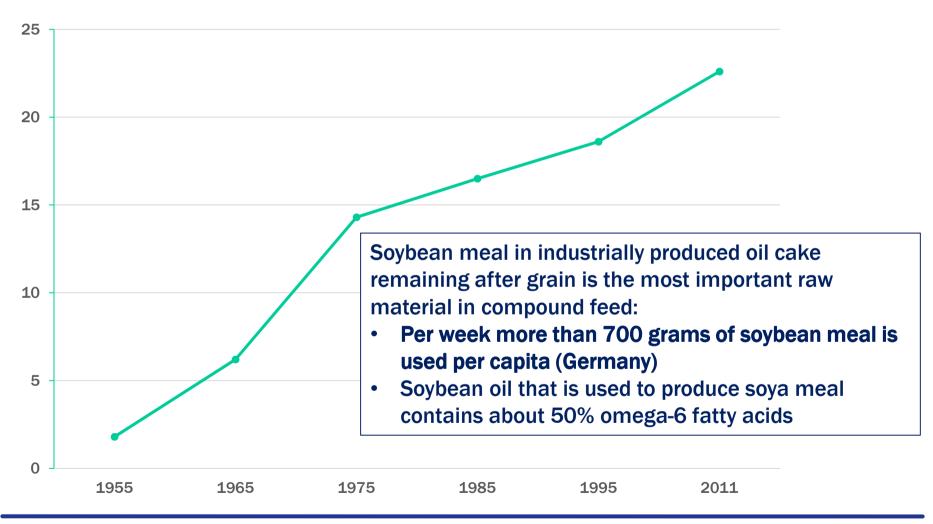
Source: 2,000 tests by an accredited UK Test Laboratory in 2012-13

# Mass production of Omega-6 rich vegetable oils



#### **Animal feed production**

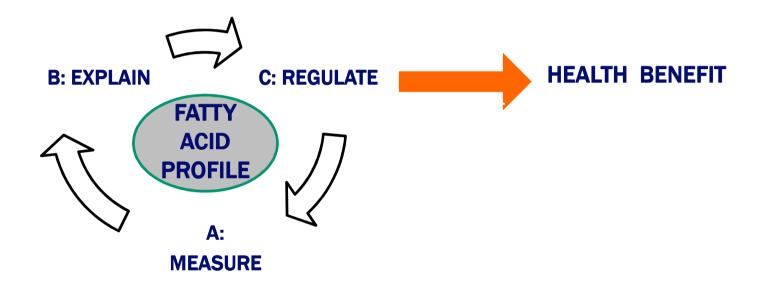
(in millions of tons)



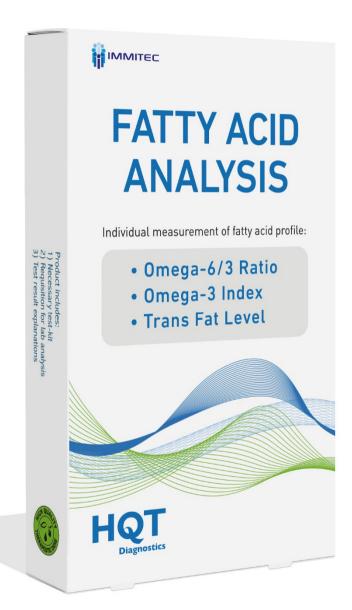
# **Conventional approach**



# New methodical approach



#### 1. Measure

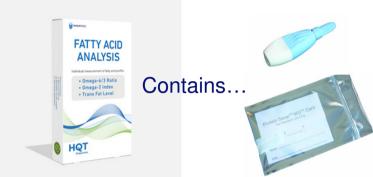


#### Measure

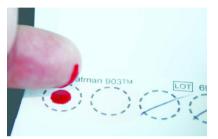
- External lab partners
- Approximation to erythrocytes values (competitors offers only serum values)
  - Related to more than 100 scientific publications and approx 50 ongoing research projects
- Stabilized result of diet from past 60-90 days
- Standardized and validated analytics
- Internal and external validity

#### **HQT Fatty Acid Analysis – Blood sample**

#### Provided as a self-test:



... are used for blood sample on a stabilized paper





#### Fatty acid included in the result:

- Saturated (#6)
- Omega-3s (#4)
- Omega-6s (#7)
- Omega-7s (#1)
- Omega-9s (#3)
- Trans fatty acids (#5)

( = 26 fatty acids which makes up more than 99% of all the fatty acid in the body)



...shipped by post to:

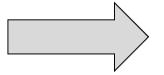




# 2. Analyse & Regulate

#### **Analyse & Regulate**

Values of 26 fatty acids (ca. 99% of all the fatty acids in the body)



Reflect the individual nutritional habits (60-90 days backwards)

- Meat consumption
- > Fish consumption
- Junk food
- > Enzyme function



- Omega-3 level
- Omega-6/3 ratio
- > Trans fat level
- Insulin resistance

#### **Practical approach**

#### **Observation**

#### **Advice**

# Marine omega-3 level is low

More fish and/or fish oil

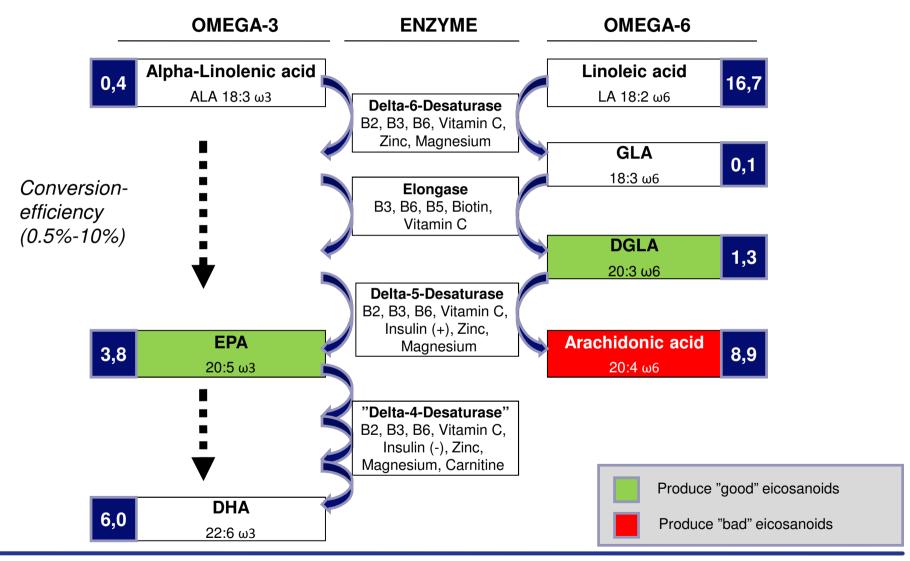
# Omega-6/3 ratio is high

- More fish and/or fish oil
- Less meat
- Less consumption of finished food products and other direct or indirect sources of omega-6 rich plant oils

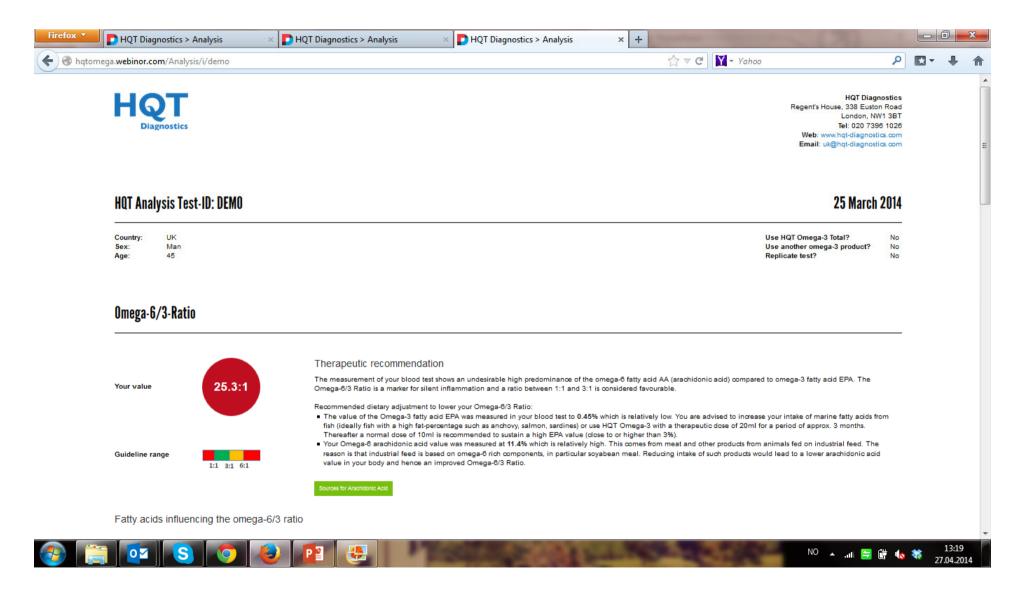
# Trans fat ratio is high

- Reduce trans fat sources
  - Processed food such as biscuits, bread, cakes, ready meals and snack foods
  - Fast food
  - "Partially hardened" or "partially hydrogenated" vegetable oils

#### Conversion of Omega-3 and Omega-6



#### Report example: Result overview



#### **Example A**

**Starting points:** Activated gonarthrosis (arthritis), polyarthritis rheumatica, chronic pain syndrome, chronic sleep disorder, nervousness, psychophysical exhaustion

#### **Fatty acid measurement:**

#### Re-test (after 6 months):

#### **Result:**

- A marked reduction of pain, which previously could not be achieved with NSAIDs
- Mentally she was much more balanced, and her sleep had improved



Dose:
Daily 10ml HQT
Omega-3 Total
over 6 months



= approx. 2.3 g omega-3 daily

#### **Example B**

**Starting point:** For one year signs of multiple sclerosis (based on CSF and MRI-bias results), initial visual and language disorder. Treatment with cortisone therapy and interferon

#### **Fatty acid measurement:**

Omega-3 Index: 3.6%

Omega-6/3 ratio: 26.2:1

#### Re-test (after 6 months):

Omega-3 Index: 10.7% Omega-6/3 ratio: 1.8:1

#### **Result:**

 Under simultaneous therapy with interferon and substitution of his micronutrient deficiencies he was completely free of symptoms - after about 8 months



#### Dose:

Daily 20ml HQT Omega-3 Total over 4 months





= approx. 4.5 g omega-3 daily

# **Summary:**

# Include Omega-3 in the therapy: What to consider?

#### **Include Omega-3 in the therapy**

- Therapeutic dose
  - > 2 gram Omega-3 per day
- Natural oils as Triglycerides
  - no concentrates!
- Effective antioxidants
- Measurement helps:
  - Check: What works, what does not
  - Visual "success" for patient



# www.hqt-diagnostics.com