

Omega-3 Centre

APPLICATION OF THE SCIENCE ON OMEGA-3S TO PUBLIC HEALTH

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Omega-3 Centre

Agenda

- Introduction to The  Omega-3 Centre
- Scientific Consensus Workshops
 - *Omega-3 fatty acids – essential nutrients for our children*
 - *Omega-3 fatty acids for Baby Boomers*
- The evidence
- The recommendations

Why an Omega-3 Centre ?

- Exponential increase in the science of Omega-3 fatty acids (Omega-3s)
- Official intake recommendations
- Low long chain Omega-3 intakes eg, 2 in 3 children consume < one fish meal/week*
- Low consumer understanding of long chain Omega-3s as an essential nutrient
- Health costs associated with low Omega-3s

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Improved health is the goal

Communication is the focus

Sound science is the basis

Vision of The Omega-3 Centre

- to be recognised as the leading Aust/NZ authority on Omega-3s and nutritional health by:
 - consumers, the media
 - health professionals, educators
 - government
 - seafood, food and supplementary medicines organisations

The Omega-3 Centre Inc

- Established 2006
- Aims to improve health status of Australians and New Zealanders by:



Communicating
the health benefits
of Omega-3s



Building a conducive
environment



Facilitating &
promoting R&D



Ensuring sound science
as the basis



De-mystifying &
translating the science



Identifying &
addressing barriers

Scientific Consensus Workshops

3 workshops to date:

– Children – 2007

- Brain development, behaviour, learning, mood
- Asthma, allergies and inflammation
- Bone and muscle growth and maintenance



– Baby Boomers – 2008

- Brain, cognition, Alzheimer's disease, mood
- Vision, weight, inflammation, CVD



– Infants, pregnant & lactating women - 2009



Scientific Consensus Workshops

- Objectives:
 - To identify the strength of scientific evidence
 - To raise community and government awareness and understanding
 - To encourage a supportive environment for optimal intakes of long chain Omega-3s
 - To change behaviour and improve health



Current level of evidence - children

Ranking	Meaning	Area
- 1	Evidence of harm	There is no evidence of harm
0	No evidence either way	IQ
+ 1	Interesting evidence	Bone growth Bone maintenance Anabolic effects on bone Increased calcium availability
+ 2	Positive evidence, no harm	Asthma Mood
+ 3	Some good evidence	Behaviour, attention, learning
+ 4	Conclusive evidence	Brain growth & development

Recommendations for children

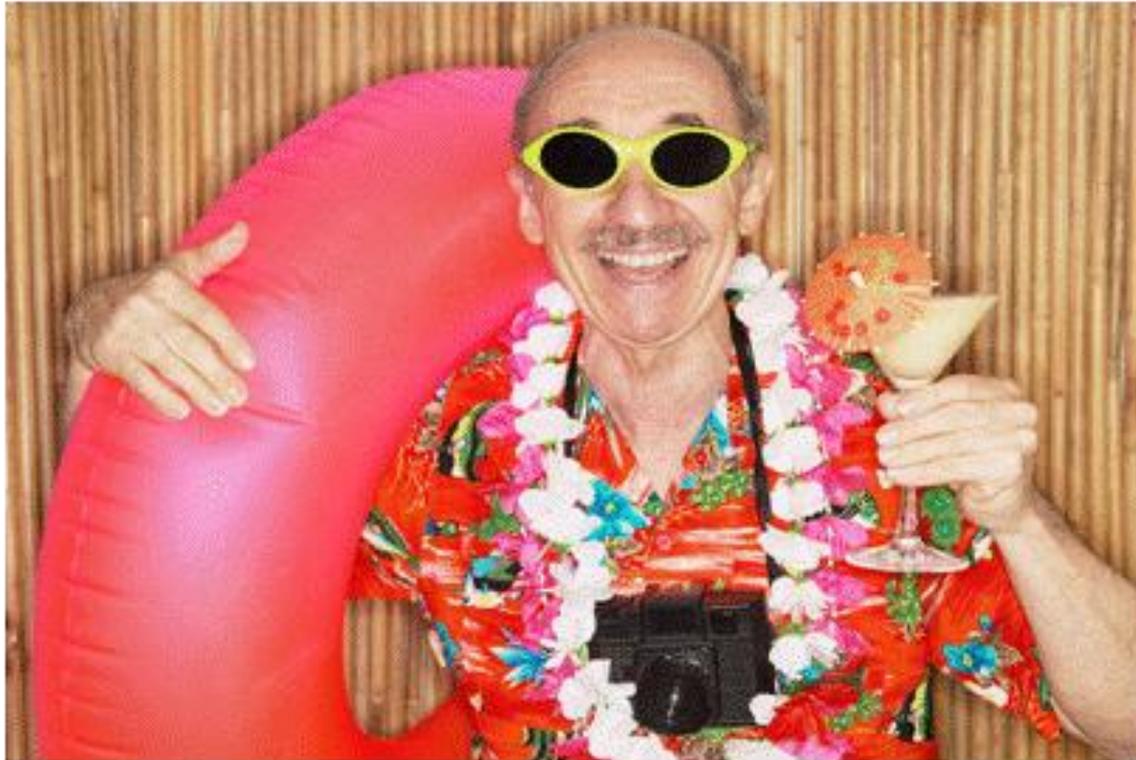
- Need **pre-formed** long chain Omega-3s, ALA inadequately converted
- Population median intakes **not** appropriate for Adequate Intake recommendations
- 500mg long chain Omega-3s for children over 14 years – adjusted for younger children
- Public health recommendations to refer to:
 - Dietary sources of long chain Omega-3s
 - Oily fish, other seafood, enriched foods

Recommendations for children

- Communications to parents, health professionals:
 - Children need long chain Omega-3s from their diet
 - Clear and specific information on sources
 - Promote food sources of long chain Omega-3s – including cheaper options
 - Need to bridge gap between current and optimal intakes
 - Differentiate between ALA and long chain Omega-3s
 - Balance with warnings re mercury, etc

Recommendations for children

- Government & long chain Omega-3s
 - Revise nutrition policy re key role in health & development
 - Include Omega-3 advice in diet and nutrition communications
 - Determine optimal levels for children to 14 years
 - Ensure food choices in schools provide Omega-3 choices
 - Cost benefit analysis
 - contribution of optimal Omega-3 intakes on health status and healthcare costs
 - Research – Omega-3 status, behaviour, learning, mood, asthma, bone health



Current level of evidence – Baby Boomers

Ranking	Meaning	Area	Evidence strength	Dose/dietary intake
+ 1	Interesting evidence	Mental health: - Depression	Interesting, possible	Not possible to define at this time
		- Mood - Cognition - Dementia, Alzheimer's disease	Weak evidence to date, important to follow up	
		Obesity	Interesting but insufficient evidence to date	Not possible to define at this time
		Metabolic health	Possible	Not possible to define at this time
+ 2	Positive evidence, no harm	Visual health	Possible	Not possible to define at this time

Current level of evidence – Baby Boomers

Ranking	Meaning	Area	Evidence strength	Dose/dietary intake
+ 3	Some good evidence	Vision: age-related macular degeneration	Probable (no intervention trials at this stage)	1-2 serves fish/w
+ 4	Conclusive evidence	Long term analgesia associated with rheumatoid arthritis	Convincing Useful alternative to NSAIDS	3g/d EPA + DHA
		CVD: - prevention	Convincing	0.5g/d EPA + DHA = 2 oily fish/w
		- management of existing disease	Convincing	1g/d EPA + DHA
		- blood triglycerides	Convincing	1.2-4g/d EPA + DHA (or DHA alone)

Key recommendations for Baby Boomers

- 500 mg per day of DHA + EPA
- Adequate Intakes (AI) levels reflect ***the current low intakes of long chain Omega-3s*** in the Australian population

Calls to action for baby boomers

- 500 mg per day of DHA + EPA from
 - 2 or more serves of oily fish per week and/or
 - foods enriched with long chain Omega-3s and/or
 - dietary supplements of fish oil
 - within the context of an energy-balanced diet.
- People with disease conditions such as RA and CVD may benefit from higher levels of long chain Omega-3s and should seek medical advice

Communication to health professionals

- New HF recommendations
- Recommended intakes for rheumatoid arthritis
- Help us gain understanding, acceptance and support for The Omega-3 Index
- Understand differences: ALA, EPA, DPA & DHA
- Able to provide clear guidance on how to achieve desired levels of long chain Omega-3s
 - Specific information on amount and type of appropriate food sources, including fish varieties is also required

Government and policy makers

- Be part of the process to develop a strategy for acceptance and support of The Omega-3 Index
- Sufficient evidence for health claims on foods in the proposed *Nutrition, health and related claims* standard
- A key role:
 - To revise nutrition policy to take account of the key role of long chain Omega-3s
 - To encourage *Baby Boomers* to have an optimal intake of long chain Omega-3s

Government and policy makers

- A key role (cont):
 - Omega-3 research (see next slide)
 - Government institutions supply adequate long chain Omega-3s
- Messages to government:
 - Use Suggested Dietary Targets (SDTs) not Adequate Intakes (AIs) as basis for advice
 - Cost benefit analysis
 - contribution of optimal Omega-3 intakes on health status and healthcare costs

Research recommendations

- Intakes and status
- Roles & mechanisms of Omega-3s in mental health
- Intervention trials on visual benefits
- National database - To monitor RBC Omega-3 levels in adults in Australia/NZ
- Food analyses - Standardisation and harmonisation
- Cost benefit analyses - Healthcare costs vs benefits re Omega-3s
- Consumer research - barriers

Watch this space...
2009 Report coming
soon!



Omega-3 Centre Consensus Meetings: science translated to health action

Some outcomes:

- Education of health professionals
- Better marketing messages
- Improved analysis of Omega-3s
- Food regulatory impact
- Working with researchers
- Consumer awareness & understanding

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Thank you to the experts who participated in the workshop for their volunteered time and tremendous effort and thank you to the International Life Sciences Institute (ILSI) and the International Society of the Study of Fatty Acids and Lipids (ISSFAL) for sponsoring the scientific consensus workshops.



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Membership: 4 categories with different benefits

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