

 <p>Winnipeg Regional Health Authority Office régional de la santé de Winnipeg Caring for Health À l'écoute de notre santé</p> <p><b>BEST PRACTICE GUIDELINE</b></p>	<p><b>NUTRITION &amp; FOOD SERVICES</b> Clinical Nutrition</p>	<p>Number: 400.610</p>	<p>Page: 1 of 3</p>
	<p>Name: Omega-3 Fatty Acid Recommendations</p>	<p>Approved by: Kathleen Richardson</p>	
	<p>Date: August, 2009</p>	<p>Supercedes:</p>	

1.0 **PURPOSE:**

- 1.1 To provide consistent recommendations on Omega-3 fatty acid intake from diet and/or supplements for adult clients.

2.0 **DEFINITIONS:**

- 2.1 Omega 3 Fatty Acids - are a family of unsaturated fatty acids that have in common a final carbon-carbon double bond in the omega-3 position; that is, the third bond from the methyl end of the fatty acid.
- 2.2 Docosahexanoic Acid (DHA) - an omega 3 fatty acid found mainly in fatty fish and some commercially made sources from algae.
- 2.3 Eicosapentaenoic acid (EPA) – an omega 3 fatty acid found mainly in fatty fish.
- 2.4 Alpha-linolenic acid (ALA) – an omega 3 fatty acid found in plant sources like flax, canola and soy. It is the precursor to DHA and EPA, but the conversion rate is very low in humans, therefore DHA and EPA sources are recommended over ALA.
- 2.5 Primary Prevention avoids the development of a disease. Most population-based health promotion activities are primary preventive measures.
- 2.6 Secondary Prevention activities are aimed at early disease detection, thereby increasing opportunities for interventions to prevent progression of the disease and emergence of symptoms.

3.0 **PRACTICE GUIDELINES:**

- 3.1 Omega 3 fatty acid recommendations are as follows:
- **General/Primary Prevention:** 300-500 mg DHA + EPA per day, equivalent to 2-3 servings of oily fish per week. No recommendations available for supplementation for non-fish eaters.
  - **Secondary Prevention:** ~1000 mg DHA + EPA per day, equivalent to 6-7 servings of oily fish per week or by supplement under MD supervision.
  - **Hypertriglyceridemia:** 2-4 g DHA + EPA per day, as capsules (supplement) under MD supervision. Note: 4-8 capsules per day would be required to obtain 2-4 g of DHA + EPA.
- 3.2 Food sources versus supplements are recommended as the primary source for obtaining recommended amounts of omega-3 fatty acids. (EPA & DHA Per Serving of Fish, Practice Issue Evidence Summary Omega 3 Recommendations, Appendix 2.)

- 3.3 Some foods are fortified with omega-3 fatty acids, which can be counted as part of a person's total daily omega-3 fatty acid intake, provided that the source of omega-3 fatty acid in the food is DHA and/or EPA, not ALA. (see Omega-3 Content of Selected Omega-3 Fortified Foods, Practice Issue Evidence Summary Omega 3 Recommendations, Appendix 2).
- 3.4 If supplements are considered, recommend omega-3 fatty acid (DHA and EPA) supplements only; omega 3-6-9 pills have very little omega-3 in them. (Omega-3 Content of Selected Supplements, Practice Issue Evidence Summary Omega 3 Recommendations, Appendix 3).
- 3.5 Do not recommend fish liver oils (e.g. Cod liver oil) which contain high amounts of vitamin A and may increase the risk of vitamin a toxicity. (Vitamin A & D Content of Selected Cod Liver Oil Supplements, Practice Issue Evidence Summary Omega 3 Recommendations, Appendix 4).

**Note:** the above recommendations encourage DHA + EPA as the recommended form of omega-3, not ALA, as the evidence available in the literature is based on studies using DHA + EPA.

**Cautionary Note:** Refer to Practice Issue Evidence Summary – Omega-3 Recommendations to review side effects and warnings prior to making recommendations.

#### 4.0 **PROCEDURE: (When Applicable)**

- 4.1 Primary Prevention
  - 4.1.1 Acute Care/Long Term Care: general primary prevention guidelines are applied through menu planning.
  - 4.1.2 Community: reinforce general healthy eating per Eating Well with Canada's Food Guide.
- 4.2 Secondary Prevention
  - 4.2.1 Acute Care: As per WRHA Diet Compendium (2007), the cardiac diet food based recommendations for Omega-3 fatty acids fall below the current evidence that suggests approximately 1 gram EPA plus DHA per day improves cardiac outcome. Logistically, food trays meeting the daily recommendations for Omega-3 fatty acids provided within a hospital setting would not be acceptable or palatable for out patient population. Physicians/Health Care Providers may choose to suggest an Omega-3 fatty acid supplement as part of their discharge plan.
  - 4.2.2 Acute Care: Use of the Omega-3 fatty acids will be discussed by the Registered Dietitian as part of the diet teaching component of the MI Care Map.
  - 4.2.3 Long Term Care: Use of the WRHA diet compendium cardiac diet needs to be individualized with consideration of benefits of liberalization of the diet. Increased meal satisfaction, improved intakes, and reduction in indicators of poor nutrition status as well as decreased requirement for nutritional supplements are potential positive results of the liberalization of the diet in long term care.
  - 4.2.4 Primary Care/Ambulatory Care: Recommendation for omega-3 fatty acids will be discussed by the Health Care Provider as part of client education.

5.0 **REFERENCES:** (includes cross-references)

- 5.1 Practice Issue Evidence Summary Omega 3 Recommendations, Approved June, 2009
- 5.2 WRHA Nutrition and Food Services Executive Summaries for 2008 Adult and Pediatric Diet Compendiums

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