



## EXECUTIVE SUMMARY- Low Iodine Diet

### Name of Expert Review Group:

Medicine RD Network

### Rationale:

Low iodine diet (LID) recommendations were reviewed to determine current best practice guidelines. The goals of the medicine expert review group are to review current literature regarding clinical guidelines and nutritional management specifically for:

1. Need for low iodine diet

### Recommendations:

1. A LID is required to reduce the body's pool of iodine prior to radioactive iodine ablation therapy (RAIT); therefore, it is recommended that the diet be maintained.
2. Review current diet criteria and update with current recommendations.

### Evidence Review:

Based on the literature, an iodine deficiency in a patient increases the efficiency of treatment of thyroid cancer with radioactive iodine (I-131). The literature recommends restricting iodine to 50 mcg per day<sup>1,2</sup>. Current practice is to follow a low iodine diet for one to two weeks prior to treatment<sup>1,2,3</sup> to achieve appropriate depletion of the body's pool for optimal radiation doses for successful RAIT and 48 hours post procedure<sup>1,3</sup>.

The average adult should aim for 150 mcg per day to a maximum of 1100 mcg per day<sup>4</sup>. Iodine content in food varies greatly due to differing ingredients and methods of processing. Foods that are removed to reduce iodine content in the diet will be based on diet criteria for the <100 mmol Sodium diet. The <100 mmol sodium diet automatically reduces iodine based on reduction of salt in the diet.

Foods that are most highly laden with iodine and should be avoided include: table salt, dairy products, egg yolks and sea foods of all types. Soy is also restricted due to its interference with RAI uptake.

In Canada, it is mandatory to fortify salt with iodine. A teaspoon (5 g) of salt contains 380 mcg of iodine<sup>13</sup><sup>4</sup>. Kosher, pickling and sea salt are a source of natural iodine but do not contain as much as iodized table salt<sup>4</sup>.

Refer to Appendix 1: Low Iodine Adult Diet Criteria

### Anticipated Impact:

None

### Practice Change:

Compliant Food Items may need to be adjusted

### Diets Included in the Review:

Low iodine diet

**References:**

1. Thyroid Cancer Canada (2014). Retrieved from [www.thyroidcancerCanada.org](http://www.thyroidcancerCanada.org)

2. Sawka, A.M., Ibrahim-Zada, I., Galacgac, P., Tsang, R.W., Brierley, J.D., Ezzat, S., and Goldstein, D.P. (2010). Dietary Iodine Restriction in Preparation for Radioactive Iodine Treatment or Scanning in Well-Differentiated Thyroid Cancer: A Systematic Review. *Thyroid*, 20(10), 1129-1138.

3. Lee, M., Lee, Y.K., Jeon, T.J., Chang, H.S., Kim, B., Lee, Y.S., Park, C.S., and Ryu, Y.H. (2014). Low Iodine Diet for One Week is Sufficient for Adequate Preparation of High Dose Radioactive Iodine Ablation Therapy of Differentiated Thyroid Cancer Patients in Iodine-Rich Areas. *Thyroid*, 24(8), 1289-1296.

4. Dietitians of Canada. Practice-Based Evidence Nutrition. (2010). Retrieved from <http://www.dietitians.ca/Downloads/Factsheets/Food-Sources-of-Iodine.aspx>

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**These recommendations have been reviewed by:**
