

Thyroid Cancer Canada

Low

Iodine

Diet

A short-term diet to prepare for

radioactive iodine treatment or scan

www.thyroidcancercanada.org

What is a low iodine diet?

Your doctor may prescribe a low iodine diet to prepare your body for radioactive iodine (RAI) treatment or scanning. A low iodine diet (LID) means that you should have foods and drinks that contain as little iodine as possible. Iodine is a mineral found naturally in many foods, especially those from the sea. In Canada, iodine is added to table salt. This is called iodized salt.

In a LID, the total amount of iodine you take in each day should be less than 50 micrograms (mcg). This will be much less than you are used to having. For example, the amount of iodine allowed on this diet in a day is equal to the amount found in less than 1/8 teaspoon of iodized table salt.

To lower iodine in your diet:

- choose foods and drinks low in iodine
- prepare foods and drinks without adding iodine

You will be asked to follow a LID for 7 to 14 days before your RAI treatment or scan and for about 2-5 days after your treatment or scan. Then, you can go back to eating as usual. Your doctor or dietitian will tell you the exact schedule.

How does a LID help with RAI treatment or scanning?

A low iodine diet starves the body of iodine. Thyroid cells will crave iodine more than others. When RAI is given, thyroid cells take up the radiated iodine, which makes them able to be seen in the scan. When given at treatment levels, RAI destroys thyroid cells including those that are cancerous.

Is a LID the same as a low sodium diet?

No. Salt is also called sodium chloride. You need to avoid iodized salt and sea salt because they contain iodine, not because they contain sodium. You can still have foods with sodium if they are low in iodine.

How can I avoid foods with iodine?

Iodine comes from many food sources. Iodine is found:

- in iodized salt and foods containing iodized salt
- naturally in many foods such as fish and other sea foods
- in dairy products, because iodine occurs naturally in milk especially because the solutions used to clean cows and milking equipment contain iodine
- in foods coloured with red food dye (erythrosine/red dye #3)

Do not eat foods and drinks that contain high levels of iodine. High iodine ingredients to AVOID are listed in the chart on the next page. Before you purchase a product, check the ingredient list on the package label.

Avoid foods that list salt or sea salt. Salt is used in most canned foods, take-out and restaurant foods, and pre-packaged foods. It is important to avoid them. All table salt packaged in Canada has iodine; however some table salt from the United States may be iodine-free (check the label).

There may be times when you are not sure if a food contains iodine. ***If you are in doubt, leave it out!***

How can I prepare foods without iodine?

Make home-made foods "from scratch" and have fruits and unsalted vegetables on hand. Add flavour with fresh or dried herbs, salt-free spice mixes or vinegars. Hide or move your salt shaker so that you won't be tempted to use it. We suggest you plan ahead and prepare meals in advance, especially if you will be hypothyroid while on the diet.

Look for recipes in low-iodine cookbooks and on-line at www.thyroidcancercanada.org. Remember that American recipes use iodine-free salt.

This publication has been written using techniques of clear language and design.

Scientific and medical references available on *Thyroid Cancer Canada* website

www.thyroidcancercanada.org

For serving-size information see Canada's Food Guide at

<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>

and LID section of TCC website

Also available from *Thyroid Cancer Canada*:

- An "Info Card" about our support group and information resources
- A booklet: *A Patient's Guide to Thyroid Cancer: for those diagnosed with Papillary or Follicular Cancers*
- *Thyroid Cancer Canada* Information Sheet: Thyrogen®
- *Thyroid Cancer Canada* Low Iodine Diet Recipes

The Thyroid Cancer Canada website contains our quarterly newsletter, new patient resources, and updates on topics of interest to Canadian thyroid cancer patients and medical specialists. Please visit the website regularly to learn more about TCC projects and events. If you would like to be added to our mailing list please contact us at:

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Food Guide for a Low Iodine Diet

Start LID on _____ and Stop LID on _____.

Foods and Ingredients to AVOID	Foods and Ingredients that are ALLOWED
Salt & Seasonings	
<ul style="list-style-type: none"> × iodized salt (all table salt in Canada) × any foods prepared with iodized salt (including any package with salt listed as an ingredient) × sea salt 	<ul style="list-style-type: none"> ✓ fresh or dried herbs ✓ salt-free spices and spice mixes ✓ vinegars ✓ non-iodized salt, such as Windsor Coarse Salt
Fish, Seafood & Sea-based Food Additives	
<ul style="list-style-type: none"> × all fish and shellfish × all sea products such as nori, dulse, seaweed and kelp × foods made with fish or seafood, such as fish sticks, sushi, maki × foods with ingredients such as alginate, algin, algae, agar, carrageenan 	NONE
Milk & Milk Products	
<ul style="list-style-type: none"> × all dairy products such as milk, cheese, butter, yogurt × foods that contain dairy products or ingredients such as whey, casein and caseinates 	NONE
Meat & Alternatives	
(no more than 2 servings of meat/poultry a day – one serving of cooked meat/poultry is equal to ½ cup or approximately the size of the palm of your hand)	
<ul style="list-style-type: none"> × any meat or poultry prepared with salt or sea salt, such as those prepared in brine × cured meats such as ham, bacon, corned beef, lox, wieners and luncheon meats × soybeans or soy protein products such as soy sauce, soy milk and tofu (the exception is soybean oil) × egg yolks × salted nuts 	<ul style="list-style-type: none"> ✓ fresh meats or poultry prepared without salt or brine (ask the butcher how the meat was prepared) ✓ wild game ✓ lentils, beans and legumes ✓ egg whites ✓ unsalted nuts
Grain Products	
(no more than 4 servings a day. One serving = 1 slice whole-wheat bread or 1/2 cup cooked grains, cereal or pasta)	
<ul style="list-style-type: none"> × breads, cereals or crackers made with salt, egg yolks, soy or dairy products × red-coloured ready-to-eat breakfast cereals × salted pasta, rice or popcorn 	<ul style="list-style-type: none"> ✓ breads, cereals, pasta and crackers made without salt, egg yolks, soy or dairy products ✓ unsalted grains, rice, rice cakes, matzoh and popcorn
Vegetables & Fruits	
<ul style="list-style-type: none"> × fruit with red dye such as maraschino cherries or red/pink fruit punch with artificial colour × frozen peas 	<ul style="list-style-type: none"> ✓ fruits and “100% juice” varieties of fruit juice ✓ unsalted vegetables ✓ raisins
Oils & Spreads	
<ul style="list-style-type: none"> × salted peanut butter or nut butters × butter or spreadable cheese products × mayonnaise 	<ul style="list-style-type: none"> ✓ unsalted peanut butter or nut butters ✓ vegetable oils including soy or soybean oil ✓ unsalted, dairy-free, soybean-free margarine
Desserts & Sweets	
<ul style="list-style-type: none"> × desserts or sweets made with salt, egg yolks, dairy products, soymilk, tofu, salted nuts or red dye × jams or jellies with red dye or sea products × milk chocolate 	<ul style="list-style-type: none"> ✓ white or brown sugar, honey, maple syrup ✓ cocoa powder ✓ juice popsicles (“100% juice” varieties), ✓ jams and jellies without red dye or sea products ✓ marshmallows, hard candy, dark chocolate ✓ dairy-free sorbet
Drinks	
<ul style="list-style-type: none"> × milk, cream or drinks made with dairy products × soy milk × punch, fruit cocktail and other drinks coloured with red dye × powdered drinks × soft drinks (pop) with red dye (e.g. red soda pop) 	<ul style="list-style-type: none"> ✓ coffee or tea without milk or cream ✓ homemade nutmilk and/ or Yü Rice beverage (rice milk) ✓ “100% juice” varieties of fruit juice ✓ fruit smoothies made without dairy or soy products ✓ beer, wine and spirits if allowed by your doctor ✓ soft drinks (pop) without red dye ✓ coconut milk (salt-free variety)
Supplements & Other	
<ul style="list-style-type: none"> × all restaurant and take-out food, including black coffee × red dye (#3/ erythrosine) used in red foods, drinks and medications (e.g. some cough medicine) × medications or vitamins that contain salt or milk × supplements with iodine or ingredients from the sea, such as kelp, glucosamine, chondroitin, selenium, coral or oyster shell calcium × some medications for cardiac arrhythmia such as Amidarone × skin creams or antiseptics made with iodine, such as betadine 	<ul style="list-style-type: none"> ✓ medications, vitamins and supplements without salt, milk, sea ingredients, iodine or red dye #3 (check with your pharmacist) <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 10px;"> <p>Do not stop taking any medications without talking to your doctor</p> </div>
<p>All radiographic contrast media contains iodine. Thus, if you have had a CT/CAT scan with contrast, it may delay having a RAI scan or treatment by at least four months, due to the iodine content of the contrast. Consult with your doctor for specific medical advice.</p>	
Notes	

Thyroid Cancer Canada's Low Iodine Diet Shopping List

This Shopping List includes foods allowed on the LID. Before choosing any food, read the *list of ingredients*. Make sure all the ingredients are allowed on the LID. The "Nutrition Facts" chart does not give you this information.

In the Shopping List, brand names are printed in **green** letters. These product names were correct when we printed this list, but products change often. Always check the list of ingredients on the package.

Make sure every ingredient is allowed on the LID.

Choose food items from the following list:

Salt, Seasonings & Condiments

Non-iodized table salt (clearly labelled 'not a source of dietary iodine'). **Note:** Iodine-free table salt is allowed, however, it may only be available in the USA. Sea salt is not allowed.

Windsor Coarse Salt or ***Windsor Kosher Salt***

Fresh or dried herbs and pure spices

Jams or Jellies – salt-free varieties

Tomato/pasta sauce, tomato paste, ketchup, dry mustard, pure vinegars – salt-free varieties

Honey, sugar, brown sugar

Meat & Alternatives

Beef, pork and/or poultry (no sauce, no brine, no seasoning) such as steak, whole chicken, etc. (if you cook it on a barbeque, be sure to scrape the grill clean first)

Egg whites. When cooking or baking, separate whole eggs and use only the egg whites (almost all of the iodine is in the yolk). Or buy egg whites in a carton (***Naturegg Simply Egg Whites***).

Chick peas, kidney beans, legumes, pintos (buy dry in a package; cans usually have salt added)

Lentils and split peas

Almonds, peanuts, cashew nuts, walnuts, hazel nuts – salt-free varieties

Sunflower seeds, pumpkin seeds (pepitas) – salt-free varieties

Peanut butter (or other nut butters) — salt-free (e.g. ***President's Choice Just Peanuts***)

Grain Products

Baking supplies: flour, baking soda, baking powder, sugar, honey, maple syrup, yeast

Bread: salt-free and dairy-free (e.g. ***Nature's Path Manna Bread*** and ***Dimpflmeier Salt-Free Rye Bread***)

Crackers: salt-free varieties of Matzoh crackers, rice cakes, rice crackers, ***Melba Toast***, no-salt tortilla wraps, ***Quaker Muffets***, corn tortilla triangles and/or other salt-free chips

Cereal whole grains: oatmeal (not individual portion size), farina, boxed grain cereal without salt (e.g. ***Quaker Whole Oats***, ***Red River Cereal***, ***Bob's Red Mill Muesli***, ***Post Shredded Wheat***, ***Kellogg's Frosted Mini Wheats***)

Grains: bulgur, cornmeal, couscous, rice

Pasta: plain wheat or rice noodles or ***No Yolks*** pasta

Vegetables & Fruits

Fruit — a variety

Vegetables – a variety (with the exception of frozen peas, as they are soaked in brine during processing)

Dried fruits (check ingredients for salt or additives; do not purchase from a bulk-bin)

Oils & Spreads

Cooking & salad oil (any vegetable oil)

Margarine (must be salt-free, dairy-free and soy-free)

Snacks

Chips – salt-free corn chips, potato chips, tortilla chips – or make your own homemade

Dark chocolate – salt-free, dairy-free, soy-free (e.g. ***Camille Bloch***, ***Droste Bittersweet***, ***Lindt Dark***, ***Rapunzel Bittersweet***, ***Schmerling***)

Hard candies such as ***Kerrs*** brand

Marshmallows — plain, salt-free, no colour

Popcorn – plain seeds for air-pop popcorn or stovetop

Real fruit popsicles or sorbet (e.g. ***Del Monte***) — milk-free and salt-free

Drinks

YÜ Rice Beverage — original, vanilla or chocolate (or make your own homemade nut milk or rice milk)

Oat Dream Enriched Original

Juice (100% juice; not fruit punch)

Tea (loose or bagged) and coffee (ground, or instant freeze-dried)

Pop and other unsalted carbonated drinks without red dye (**no** red cream soda)

Lemons, limes and oranges to make lemonade, citrus drinks and tea-juice coolers

Product brand names have been included solely on the basis of their LID-friendly ingredients at time of publication. Thyroid Cancer Canada did not solicit nor accept any paid endorsement of any products listed in this shopping guide.

Thyroid Cancer Canada's LID Menu Planner — Sample Menus for a Low Iodine Diet

Use the Menu Planner to plan meals and snacks, along with the allowed foods on the TCC LID Shopping List.

Your doctor may prescribe the LID for 1 to 2 weeks to prepare your body for radioactive iodine treatment or scanning. The LID is meant to be used for a short time. It is not recommended as healthy eating for a longer period.

The Menu Planner is a general guide to provide examples of meals and snacks on a LID.

For specific medical advice, check with your doctor or dietitian.

The Menu Planner was correct at the time of printing, but products change often. Always check the list of ingredients on food packages. Make sure every ingredient is allowed on the LID.

**All of the following suggested foods are to be made with salt-free versions of packaged foods.
If you add salt, be sure to use an iodine-free salt**

Day One

Breakfast

Hot oatmeal or *Cream of Wheat* cereal with honey or brown sugar
Rice milk (homemade or *YÜ Rice Beverage*)
Fresh fruit
Coffee/ tea with lemon or rice milk (or nut milk)

Lunch

Jam and peanut butter, or roasted garlic in olive oil spread on salt-free rice cakes, crackers or matzoh
Homemade soup (e.g. chicken or vegetable)
Fruit juice (100% juice)

Dinner

Salad with homemade dressing
Homemade beef or vegetable stew
Pop/ water/ juice
Sorbet (dairy-free)

Snacks

Fruit
Marshmallows
Air-popped popcorn (made from kernels)
Popsicles (made from 100% juice)
Raw veggies

Day Two

Breakfast

Fruit smoothie (fresh fruit blended together, optionally with *YÜ Rice Beverage*)
Pancakes (home made from scratch) or dry cereal
Coffee/ tea with lemon or rice milk (or nut milk)

Lunch

Scrambled eggs made with the egg whites only and vegetable oil, fried vegetables
Toast or rice crackers/matzoh crackers
Fresh fruit
Pop/ water/ juice/ homemade ice green tea

Dinner

Homemade roasted chicken (made from scratch)
Roasted potatoes or rice with olive oil
Steamed vegetables
Or, homemade vegetable stir-fry
Tropical fruits
Pop/ water/ juice/coffee/tea

Snacks

Dark chocolate (free of milk, salt & soy)
Homemade sorbet (puréed frozen fruit)
Fruit

Day Three

Breakfast

Homemade muffins or toast/crackers with jam or peanut butter
Fruit
Coffee/ tea with lemon or rice milk (or nut milk)

Lunch

Salad with homemade dressing
Sandwich on LID-friendly bread. Fillings may be: roasted vegetables, peanut butter & jam, homemade sliced beef or chicken. Mashed avocado can be used as substitute for mayonnaise
Pop/ water/ juice

Dinner

Salad with homemade dressing
Pasta & meat balls/meat sauce, made with store-bought or homemade tomato sauce
Or, pasta with pesto sauce
Homemade cake or muffins
Pop/ water/ juice/ coffee/tea

Snacks

Homemade treats (such as oatmeal cookies, almond or coconut macarons)
Raw veggies
Marshmallows

Thyroid Cancer Canada's recipes available at www.thyroidcancercanada.org

The Low Iodine Diet Cookbook, by Norene Gilletz, is available at <http://www.gourmania.com/pages/lidckbk.htm>

Note: recipes on American websites list iodine-free salt in many recipes as it is readily available in the USA. If iodine-free salt is not available to you, omit salt from the recipe

This information was prepared for general educational purposes only. It is not intended as specific medical advice or direction.

The information was current at the time of printing, however we encourage you to **always check labels for appropriate ingredients.**

For information about serving sizes, see Canada's Food Guide
<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>

For more information about the low iodine diet, speak to a member of your healthcare team.

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