

Dietary Guide - Two Food Elimination Diet (2FED) for Eosinophilic Oesophagitis (EoE)

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Eosinophilic oesophagitis (EoE) happens when white blood cells (called eosinophils) build up in the lining of the oesophagus, which is the tube that connects the mouth to the stomach. This can be the result of an allergic reaction to food or the environment.

Most cases of EoE are seen in people with other allergies such as allergic rhinitis (hay fever) and asthma. It is estimated to affect around one in 1,000 people (children and adults), and the frequency of EoE appears to be increasing. The reasons are unclear, but it is known that allergies of all types have become more common.

More information about EoE can be found on the ASCIA website:

www.allergy.org.au/patients/food-other-adverse-reactions/eosinophilic-oesophagitis

The 2FED diet eliminates the two most common trigger foods for EoE – cow's milk (dairy) and wheat

Diet Instructions

1. This diet plan outlines how to follow a diet free from **cow's milk (dairy) and wheat**. The diet involves strictly avoiding all foods and drinks that contain cow's milk (dairy) and wheat even in very small quantities.
2. This diet is to be used for **8 to 12 weeks** as a trial to see if avoiding certain foods will help reduce symptoms. You should regard this diet as a test to see if foods are making symptoms worse and not necessarily a long term treatment.
3. You will be asked to complete diaries recording foods eaten and details of any symptoms whilst following this diet.
4. The effect of the diet will be assessed by symptoms and/or a repeat endoscopy (a procedure to look inside the body with a small tube with a camera and light attached), and biopsies (samples of cells) of the oesophagus are taken.
5. Each food will then be reintroduced one by one. Introduction of foods will be discussed in detail by the doctor and dietitian at follow up appointments.

What foods can be eaten?

If you have existing food allergies it is important to continue to avoid those foods whilst following this diet for EoE. Otherwise, all plain meat, fish, chicken, egg, legumes, non-wheat grains, fruits, nuts, seeds and vegetables can be included. Your specialist may recommend excluding all gluten containing grains (wheat, barley, rye and oats).

What about packaged foods?

Many packaged food products will contain ingredients made from wheat or milk. In Australia and New Zealand, food manufacturers must declare the presence of any cow's (and other animal) milk (dairy), wheat and other gluten containing grains however small the amount. It is important to check package labels, including ingredients lists carefully, and avoid products with any of the ingredients in the following tables.

What are “may contain traces of” statements?

These statements are voluntary and used by manufacturers to indicate that the product may be contaminated with food allergen ingredients through processing and packaging. Products that do not directly contain cow’s milk (dairy) or wheat as an ingredient but have a “may contain _____” style statement are safe to include on this diet.

Cow’s milk protein

The following foods and ingredients contain cow’s milk protein and should be avoided:

A2 milk	Dried milk	Low fat milk
Acidophilus milk	Dried milk solids	Malted milk
Butter	Evaporated milk	Milk
Buttermilk	Fat-free milk	Milk derivative
Casein/caseinates	Ghee	Milk powder
Cheese	Butter oil	Milk protein
Cheese powder	Butter fat	Milk solids
Condensed milk	Hydrolysates (casein, milk protein, whey)	Non-fat dairy solids
Cottage cheese	Ice cream	Non-fat milk solids
Cream	Infant formula – cow’s milk based including partially hydrolysed (HA) formula	Skim milk
Cultured milk	Kefir	Skim milk solids
Curds	Lactalbumin	Sour cream
Custard	Lactoglobulin	Whey
Dairy solids	Lactose free milk	Yoghurt

Note: Other animal milks such as goat, sheep, camel, buffalo products are too similar to cow’s milk (dairy) products, so they should not be used as substitutes. **Check labels on all foods.**

The following foods may contain cow’s milk protein unless the label says otherwise and need to be avoided:

Cocktails (alcoholic and non-alcoholic)	Breads, breadcrumbs	Caramel or butterscotch desserts
Biscuits, cakes, pastry	Breakfast cereal	Chocolate
Bottled water that is flavoured or protein enriched	Canned spaghetti	Probiotic drinks
Confectionary	Instant mashed potatoes	Processed meats
Drinking Chocolate	Malted milk powder	Protein powders
Gravy	Margarine	Salad dressings
High energy foods and powders with added protein	Milk ice blocks	Snack food
High protein fruit juice drinks	Non-dairy creamers	Soy cheese
Icing	Nougat	Soups
Infant rusks/rice cereals	Pasta sauces	Sports drinks

Wheat

The following foods and ingredients contain wheat and should be avoided:

Atta flour	Graham flour	Wheat
Bulgar	Kamut	Wheat bran
Burghul	Matzoh	Wheat flour
Couscous	Seitan	Wheat germ
Cracker meal	Semolina	Wheat meal
Durum	Spelt	Wheat starch
Farina	Tabouleh	Wheat berries
Gluten	Triticale	

Check labels on the following foods to see if they contain wheat and if they do, avoid them:

Baked goods	Flavouring (natural/artificial)	Pastry/tarts
Battered foods	Hydrolysed vegetable protein (HVP)	Playdough (use wheat free)
Beer	Ice cream cones	Processed meats
Biscuits	Icing sugar	Rusks
Bread (other than gluten free)	Instant drink mixes	Sauces/gravy mixes
Breadcrumbs	Liquorice	Soy sauce
Breakfast cereal	Lollies	Soups
Cakes/muffins	Malt, malted milk	Snack foods
Canned soups/stocks	Meat/seafood substitutes	Starch
Cereal extract	Multigrain or wholemeal foods	Stock cubes
Coffee substitutes	Mustard	Surimi
Cornflour (from wheat)	Pancakes/waffles	Vegetable gum/starch
Donuts	Pasta/noodles	

Foods to include whilst following the 2FED diet for EoE

Ingredients listed in the table below do not contain cow's milk or wheat proteins and are safe to eat whilst following the 2FED diet for EoE.

Wheat	<ul style="list-style-type: none"> • Glucose • Glucose syrup • Glucose powder • Dextrose • Caramel colour • Monosodium glutamate
Milk	<ul style="list-style-type: none"> • Cocoa butter • Cream of tartar • Lactic acid - some lactic acid starter cultures may however contain milk (check label) • Lactose in medication - lactose is the sugar contained in cow's milk and the pure sugar form is used in medications • Sodium or calcium lactate • Sodium or calcium stearoyl lactylate <p>Note:</p> <ul style="list-style-type: none"> • Lactose free products should not be consumed as part of the 2FED diet as they still contain normal amounts of cow's milk protein

Cow's milk (dairy) alternatives

Instead of:	Use:
Cow's milk infant formula for a child less than one to two years of age	Breast milk or appropriate formula as advised by your child's medical specialist.
Cow's milk for children over one to two years of age and adults	Soy, rice, oat, nut, pea protein-based drinks. Choose one with 120-160 mg calcium per 100 ml. If tolerated calcium fortified soy milk is preferred due to higher protein and fat content.
Yoghurt	Soy, coconut, nut or other plant based, custards and chia puddings, homemade desserts with milk substitute. Note: <ul style="list-style-type: none"> • Some products contain a small amount of cow's milk protein. • Check labels carefully and ideally choose one with added calcium.
Cheese, sour cream	Plant based. Note: Some soy cheeses contain cow's milk protein. Check the label carefully.
Ice cream	Plant based Check the label carefully.
Butter and margarine	Oil or milk free margarine
Cream and condensed milk	Plant based
Chocolate	Plant based

Considerations for infants and young children

If your child will not drink the milk substitute, a dietitian can advise how to encourage your child to accept it, or how to supplement the diet with essential nutrients such as calcium, energy and protein.

It is important to have an adequate calcium intake, as recommended in the following table.

Recommended daily intakes of calcium

AGE	CALCIUM (mg)
1 – 3 years	500
4 – 8 years	700
9 – 11 years	1000
12 – 18 years	1300
Men 19 - 70years	1000
Men >70 years	1300
Women 19 - 50 years	1000
Women >50 years	1300

A calcium supplement may need to be taken if inadequate volumes of milk replacement or specialised formula are taken. Your dietitian will assess this and discuss this with you if required.

Wheat alternatives

The biggest challenge when avoiding wheat is finding alternative breads, cereals and pasta. The following table outlines some substitutes.

Instead of:	Use:																							
Breads, cereals, pastas made from wheat flours and grains.	Breads, flours, cereals, pastas made from:																							
	<table border="1"> <tbody> <tr> <td>Amaranth</td> <td>Lentil</td> <td>Quinoa</td> </tr> <tr> <td>Arrowroot</td> <td>Lupin</td> <td>Rice</td> </tr> <tr> <td>Barley</td> <td>Millet</td> <td>Rye</td> </tr> <tr> <td>Buckwheat</td> <td>Oat</td> <td>Sago</td> </tr> <tr> <td>Chickpea (besan)</td> <td>Pea</td> <td>Soy</td> </tr> <tr> <td>Coconut</td> <td>Polenta</td> <td>Sorghum</td> </tr> <tr> <td>Corn (maize)</td> <td>Potato</td> <td>Tapioca</td> </tr> <tr> <td>Gluten-free flours</td> <td>Psyllium</td> <td></td> </tr> </tbody> </table>	Amaranth	Lentil	Quinoa	Arrowroot	Lupin	Rice	Barley	Millet	Rye	Buckwheat	Oat	Sago	Chickpea (besan)	Pea	Soy	Coconut	Polenta	Sorghum	Corn (maize)	Potato	Tapioca	Gluten-free flours	Psyllium
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Snacks such as muesli bars and muffins	Rice and corn crackers/cakes, gluten free savoury biscuits and crackers, gluten free muesli and snack bars																							
Treats such as biscuits and chocolate	Plain salted potato chips, corn chips, rice chips, and gluten free sweet biscuits																							
Beer (alcoholic and non-alcoholic)	Brands made from hops or barley. Gluten free beer.																							

Meal and snack ideas

Breakfast

Oat porridge made with calcium fortified alternative milk or yoghurt (check label for wheat or gluten traces)
Gluten free cereal with calcium fortified alternative milk or yoghurt
Gluten free packet mix or home-made pancakes with wheat and milk substitutions
Wheat free bread with toppings such as honey, jam, nut spreads
Cooked breakfast options such as egg, wheat free baked beans, tomatoes, mushrooms, bacon, wheat free sausages, avocado with wheat free bread
Smoothie made with fruit, oats, seeds, calcium fortified alternative milk and yoghurt
Fruit or vegetable juice, calcium fortified alternative milk (in coffee or tea)

Lunch and Dinner

Plain grilled, BBQ or roast beef, chicken, lamb, fish, legumes, egg with salad/vegetables and rice, quinoa, barley or millet based couscous
Homemade crumbed chicken or fish using gluten free crumbs
Risotto/fried rice dish
Barley, quinoa and other alternative grains based salads and other meals
Wheat free pasta with homemade tomato-based sauce or bolognese sauce
Gluten free pizza base and toppings (use soy or coconut cheese)
Meat or fish-based curry and vegetables with rice, rice noodles or millet based couscous
Gluten free wraps with chicken, lamb, beef or ham and salad
Rice cakes with hummus, avocado, nut spreads, sliced meats (check ingredients), salad vegetables
Rice paper rolls
Sushi (check ingredients)
Tacos or burritos with corn-based taco shells or gluten free wraps
Baked potato or sweet potato with various toppings
Baked beans, egg (or other cooked breakfast options) on wheat free toast

Snacks

Smoothies made with calcium fortified alternative milk or yoghurt
Ice blocks with calcium fortified alternative milk or yoghurt
Homemade cakes and biscuits
Protein or energy balls made with ingredients such as ground nuts, honey, cocoa, plant based protein powder, dried fruit and coconut
Fresh and dried fruit
Calcium fortified alternative custard, ice-cream or yoghurt with fruit
Plain popcorn
Corn chips, rice crackers with tomato salsa or avocado
Plain potato chips
Jelly
Salsa or hummus dip with rice crackers or vegetable sticks

Note: The food lists included in this document are not exhaustive. People with food allergy should check foods labels each time products are purchased.

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For more information go to www.allergy.org.au/patients/food-allergy and

www.allergy.org.au/patients/food-other-adverse-reactions

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