



May 2015

### **A cinnamon and benzoate free diet for orofacial granulomatosis:**

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Orofacial granulomatosis (OFG) is a condition which affects mainly the mouth and lips. Swelling and redness are the most common symptoms but other symptoms such as mouth ulcers and cracked lips can occur too.

The cause is not known but a cinnamon and benzoate free diet helps 70% of people with OFG.

Avoiding foods which contain cinnamon and benzoates may help your oral symptoms.

You should try and follow this diet for 12 weeks and monitor any improvements in your symptoms diary.

Keep to fresh or home cooked food where possible.

If you are unsure whether a food or drink may contain cinnamon or benzoate, it is best to avoid it.

It is important that you read the labels of any manufactured or prepared foods you consume.

## Cinnamon

Cinnamon is a natural substance, which because it is used in very small quantities does not always have to be stated on food labels. Look for the word **spices, spice extracts, ground cinnamon, mixed spice, cinnamon oil, cinnamal or cinnamic aldehyde** on food labels.

## Benzoates

Most benzoates are added to food and drinks as a preservative. They are commonly added to fizzy drinks and processed foods. High levels of benzoates may also occur naturally in certain foods. Benzoates includes any of these preservatives:

E210 or Benzoic acid

E211 or Sodium benzoate

E212 or Potassium benzoate

E213 or Calcium benzoate

E214 or Ethyl 4-hydroxybenzoate or Ethyl para-hydroxybenzoate

E215 or Ethyl 4-hydroxybenzoate, sodium salt or sodium ethyl para-hydroxybenzoate

\*E216 or Propyl 4-hydroxybenzoate or Propyl para-hydroxybenzoate

\*E217 or Propyl 4-hydroxybenzoate, sodium salt or sodium para-hydroxybenzoate

E218 or Methyl 4-hydroxybenzoate or Methyl para-hydroxybenzoate

E219 or Methyl 4-hydroxybenzoate, sodium salt or sodium methyl-hydroxybenzoate

\*banned in foods produced within the European Union but may be found in imported products.

## Flavourings

These are chemicals that can be added to many processed foods to improve the flavour. They are often added to biscuits, crisps, sweets, chutneys, sauces, soft drinks, soups, ready meals and many more. Some flavourings are compounds related to cinnamon and benzoates. European law does not require labels to specify the chemicals used but does require use of the term "flavouring". As it is not possible to identify the compound added, it is recommended that products labelled with "flavourings" or "natural flavourings" be avoided where possible.

## Food and drink directory

The following pages provide lists of foods that commonly contain cinnamon and benzoates. This list is correct at the time the information was collected, **HOWEVER**, manufacturers may change ingredients from time to time, and you should therefore ensure that your diet sheet is current and check the list of ingredients on the package label.

<b>Foods Allowed</b>		<b>Foods to avoid</b>
	Foods with naturally occurring benzoates	Foods with added cinnamon and benzoates
<b>Meat:</b>		
Any plain fresh or frozen meat, meat dishes without spices or benzoates		Meat in a spicy sauce, cold meat containing spices, any made up meat dishes or pie and pastry fillings containing spices or benzoates
<b>Fish:</b>		
Any plain fresh or frozen fish and fish dishes without spices and benzoates		Fish in a spicy sauce, any made up fish dishes containing spices. (N.B. Be aware of over the counter delicatessen fish products with no labels as benzoates can be added)
<b>Fats and Oils:</b>		
Pure butter, shortening. Pure vegetable oils, lard and dripping. Margarine, homemade salad dressings.		Ready prepared salad dressings with restricted ingredients.
<b>Eggs and Dairy Produce:</b>		
All types of milk, cream, sour cream and fromage frais. Cheese, ice-cream made with allowed ingredients. Eggs.	Yogurts with added cinnamon or fruits rich in natural benzoates. Cheeses with spices. Blue and gorgonzola cheese.	
<b>Cereals, rice and pasta;</b>		
Bread, rice, pasta, flour, sago, tapioca, oats (e.g. porridge) custard powder and cornflour. Cracker breads, water biscuits, cream crackers, original ryvita, oat cakes, bread sticks, and rice cakes. Breakfast cereals without added cinnamon, dried fruits and chocolate.		Baked beans, tinned spaghetti, ravioli and spaghetti hoops with spices. Look at labels carefully on packaged pasta dishes.
<b>Cakes and biscuits:</b>		
Any plain fresh bread, buns, pizza dough. Any home-made or manufactured cakes or biscuits with allowed ingredients.		Any manufactured cakes containing spices. Fruit cake, carrot cake, gingerbread, apple strudel, mince pies, garibaldi, ginger biscuits are likely to contain cinnamon.

Foods allowed	Foods to avoid	
	Foods with naturally occurring benzoates	Foods with added cinnamon and benzoates
<b>Fruit and vegetables</b>		
All fresh and frozen fruits or vegetables not listed on the right. Examples of fruit include: apples, oranges, pears, bananas, satsumas, tangerines, melon, pineapple, grapefruit, lemon, lime, grapes, mangos. Examples of vegetables include: broccoli, cauliflower, cabbage, carrots, green beans, runner beans, broad beans, spring greens, lettuce, cucumber, onion, garlic, peppers, bean sprouts, rhubarb	Dried fruit, fruit sauce. Avocado, pumpkin, kidney beans, soy beans <sup>1</sup> , spinach, berries e.g. blackberries, cranberries, blueberries, strawberries, raspberries, prunes, peaches, papaya, nectarines Tomato puree <sup>2</sup> & sundried tomatoes	Jams and marmalades, fruit sauces e.g. toppings, tins or jars of fruit or fruit puree, glace fruit
<b>Crisps, savoury snacks and nuts</b>		
Plain nuts, seeds and plain or ready salted crisps without spices.		Dry roasted nuts, <b>Bombay</b> mix, spicy nuts or flavoured crisps.
<b>Sweets and chocolates<sup>3</sup></b>		
All sweets, chewing gum with allowed ingredients, sugar, honey, ginger, apple and pear preserves, lemon curd, molasses, maple syrup, corn syrup and icing sugar. All other artificial sweeteners.	Cocoa, cinnamon sticks	Chocolate and chocolate products, cake decorations. Cola cubes, cola chewits etc. Liquid artificial sweetener e.g. Sweetex liquid.

**Soy** is often used as a flour alongside wheat flour in breads. The quantities used are very small and so it is unlikely that this source of soy will cause a reaction. (There are breads available that do not contain soy flour although these are often more difficult to find).

**Soy (Soya) Labelling;** The food industry is required by law to highlight ingredients which are common allergens in their products. This includes ingredients used in other food products prepared in the same environment which could be potential contaminants. Soy (or soya) is one of these allergens and would usually be prefixed with the words "may contain". This would mean that soy would only be found in trace amounts (if at all) in foods labelled in this way. These potential traces would be unlikely to cause a reaction in OFG.

**Soya Lecithin** is mainly found in very small quantities in margarines, and is unlikely to cause a reaction in OFG. It is possible however to find alternatives without soya lecithin.

<sup>2</sup> **Tomato puree** is tomato concentrate. Benzoic acid is found naturally at very low levels in tomatoes. Tomatoes do not need to be avoided but due to the higher concentration of tomatoes in tomato puree, levels of benzoic acid will be higher and should potentially be avoided in large quantities. Sundried tomatoes may be more concentrated sources of benzoic acid if used in large quantities.

<sup>3</sup> **Chocolate** can often cause a reaction and is usually best avoided in OFG for at least 12 weeks.

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	Foods with naturally occurring benzoates	Foods with added cinnamon and benzoates
<b>Miscellaneous:</b>		
Pickles or sauces with allowed ingredients. Lemon curd, peanut butter, vegemite.		Pickles and pickled products e.g. herring, beetroot, ketchup, soy sauce, deli products, marmite, Check sauces
<b>Herbs and Spices:</b>		
Salt, pepper, herbs e.g. basil, chives, mint, thyme, oregano, rosemary, single spices e.g. chilli, ginger, cumin, coriander seed, turmeric.	Cinnamon sticks, cinnamon powder, cloves, nutmeg, sage, curry powder, all spice, mixed spice, cassia, garam masala.	
<b>Drinks:</b>		
All drinks with allowed ingredients e.g. unflavoured still and carbonated water. Fruit juices  Coffee, fruit and herbal infusions.  Alcohol, lager beer, white wine, red wine, cider, whiskey.	Fruit juices made with fruits containing natural benzoates (e.g. berries, strawberries, raspberries, prunes, peaches, papaya, nectarines)  Tea including black tea, green tea, rooibos tea.	Some fizzy drinks e.g. cola drinks, Vimto, Dr Pepper, Fanta, Irn Bru, Sprite. Flavoured bottled waters. Squash, cordial, glucose drinks e.g. Lucozade. Milk shake syrups, flavoured milk, Slush Puppie, non-alcoholic grape drinks, liquid coffee and chicory drinks, e.g. Camp  Alcohol: Gin, red and white Martini and Cinzano, perfumed drinks, e.g. Dubonnet, Malibu, dark rum, Tia Maria, mulled wine.
<b>Medicines, vitamins and minerals:</b>		
		Some tablets contain benzoates in the white coating. Check with your pharmacist.
<b>Toothpaste and mouthwash:</b>		
Most toothpaste and mouthwashes e.g. Colgate total whitening toothpaste, Mcleans total health white, Kingfisher fennel toothpaste, Corsodyl mouthwash (mint and original) Dentyl PH minty citrus mouthwash.		Some toothpastes and mouthwashes (read labels). Avoid those labelled with benzoates, "clove oil", "aroma and cinnamal"

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## Sample meal plan

### Breakfast

Cereal (e.g. Cornflakes, Weetabix, Shreddies) with milk and/or  
 Bread with butter and honey or lemon curd or peanut butter or vegemite and/or  
 Natural yoghurt or fromage frais with honey and fresh fruit (e.g. banana, apple, pear etc)

Coffee or fruit/herbal infusion  
 Fresh orange/grapefruit juice

### Mid morning

Coffee or fruit/herbal infusion  
 Tea biscuits or suitable fruit

### Snack meal

Sandwich with butter, cold meat or fish (e.g. chicken, salmon, tuna, beef, lamb, ham) or cheddar cheese or egg or peanut butter or vegemite or houmous and salad and/or Jacket potato with cheddar cheese or tuna and sweetcorn and salad

Yoghurt and suitable fresh fruit

Water or orange/grapefruit juice diluted with water

### Mid afternoon

Coffee or fruit/herbal infusion  
 Cake or biscuits (see manufactures list) or suitable fruit

### Main meal

#### Starters:

Soup (made from allowed ingredients) or melon or grapefruit

#### Main course:

Meat or poultry or fish with vegetables e.g. carrots, peas and mashed potatoes with butter and milk and gravy (see basic recipes) or

Pasta with fresh pesto sauce or other suitable sauce and salad or vegetables or Rice with meat or poultry or fish in suitable sauce and salad or vegetables

#### Puddings:

Rice pudding  
 Yoghurt and fruit

Custard and tinned fruit Ice cream

Water or orange/grapefruit juice diluted with water

### Supper

Cheddar cheese on toast or

Toast and butter or margarine with honey or lemon curd or peanut butter

Coffee or fruit/herbal infusion  
 Milk

## Eating out:

Eating out is often the biggest challenge as cross contamination with cinnamon and not knowing exact ingredients can make this difficult. Be aware of certain ingredients like pickles and sauces from an unknown origin. Preserved and processed meats, and fish or those with added spices and cheese with spices or blue veins need to be avoided. Cakes and pastries that are unpackaged and sold as individual items are more likely to be contaminated with cinnamon (e.g. those sold in coffee shops and bakeries or patisseries).

### Snack or light meals:

It may be possible to read ingredients on pre-packaged foods. If not then sandwiches, salads and jacket potatoes can be a good alternative.

Choose plain fillings e.g. chicken, beef, pork, lamb, tuna, salmon, prawns, Cheddar cheese with salad.

It may be possible to include some of the ingredients (such as mayonnaise, houmous, yoghurt) if you can read the labels.

Snack on suitable fruit and vegetables.

### Restaurants:

Try to avoid restaurants that would use cinnamon and other spices as part of their regular cuisine. The risk of cross contamination is quite high even if you order food without added spice. These might include, Indian, Thai and Chinese restaurants. Use of cinnamon, curry powder and soy sauce are key ingredients in Asian cooking and a high concentration of spices are more likely to cause a reaction.

A greater selection of food choice might be found in Italian, French, British, European and American restaurants. Ask the staff about the food and check it is free from spices (particularly if you are ordering foods that may contain sauces).

<b>Possible options:</b>	<b>Be cautious and ask for further information from restaurant:</b>
Garlic bread Olives Breaded garlic mushrooms  Most plain meats, calves liver, steak, fish, shellfish. Pizza (usually tomato base spread thin) check with suitable toppings. Pasta with cream sauce or soured cream or pesto or olive oil and allowed vegetables. Salads Freshly made burgers (check ingredients) with salad and chips. Omelette  Suitable fruit with cream or yogurt	Cured meats, avocado, tomato puree, marinades, sauces, sun-dried tomatoes.  <b>NB</b> Fresh nutmeg is traditionally used in béchamel sauces, rice puddings and is sometimes added to baked or stewed fruits, sauces, soups.  <b>Always</b> ask about cooked puddings and ice-cream as cinnamon and nutmeg are often used.

## Basic Recipes:

The following recipes are to help you avoid frequently used gravies and dressings that often contain benzoates or spices.

### Traditional gravy from roast meat:

#### Ingredients:

1 tablespoon of flour  
1 pint of stock (used cooked vegetable water or allowed stock powders or cubes)

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Remove the cooked meat from the roasting tin leaving the juices of the meat in the tin. Tilt the tin and with a metal spoon remove the most of the fat (leave approx. 1 – 2 spoons). With a wooden spoon, scrape the tin to release the extracts (and flavour) of the cooked meat. Put the tin over a low heat and it should start to simmer. At this point, add a tablespoon of flour and stir vigorously with the wooden spoon. You are aiming for a smooth paste. Add approx. 500ml water from cooked vegetables to provide liquid. Allow the gravy to boil and then reduce over a gentle heat to your preferred consistency. For paler meats, you can add some onion and let them caramelize a little before adding the flour or you can add a little gravy browning.

### Meatless onion gravy:

#### Ingredients:

3 large sliced onions  
2 crushed garlic cloves  
1 tablespoon brown sugar  
75g flour  
75ml gravy browning  
500ml stock (use cooked vegetable water or allowed stock powders or cubes)  
Salt and pepper  
Oil for frying the onions

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In a saucepan, fry the onions, garlic and sugar until they are golden brown and caramelised. Sprinkle in the flour and mix together. Stir in a small amount of stock and mix to a smooth paste. Add the rest of the stock and boil. Reduce over a gentle heat to your preferred consistency.

### Vinaigrette:

#### Ingredients:

100ml olive oil  
50mls white wine vinegar  
1 crushed clove of garlic (or a small blob of garlic puree)  
1 teaspoon mustard if desired  
Salt and pepper

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Put all the ingredients in a sealed container (e.g. a jam jar with a tight lid). Shake vigorously.

Spicy food is often avoided on a cinnamon and benzoate free diet in case the spices used include cinnamon or other spices that may be high in naturally occurring benzoates such as cloves or nutmeg. It is possible to have spicy food but requires a little more thought. Below is an example of a curry paste that you can make and add to meat, fish and vegetables to make a curry.

**Curry paste Ingredients:**

1 inch of ginger — peeled and chopped  
1 green or red chilli (all provide different strengths of heat and flavour so experiment. Remove the seeds unless you want a very hot curry paste)  
3 fat cloves of garlic crushed  
1 teaspoon coriander powder  
1 teaspoon cumin powder  
1/2 teaspoon turmeric powder  
(ideally if you buy the seeds there will be less chance of contamination from cinnamon and cassia, which would normally be manufactured in the same location) — to prepare seeds, lightly toast and grind in a pestle and mortar or a coffee grinder to a powder.  
Add a little water or oil

**Instructions:**

Mix all of the above ingredients together — you are aiming for a puree consistency (you can also buy readymade ginger and garlic purees which might be easier)

**How to serve:**

This paste can be the basis of many curry dishes. You simply need to add a few teaspoons to a vegetable or meat/fish dish. Meat or vegetables can be marinated in this to provide it with flavour and can then be cooked. Alternatively to make a curry with a sauce, you can add fresh chopped tomatoes, natural yoghurt or cream. Coconut is often used in curries and coconut milk, cream or desiccated can be used to add extra flavour to your curry.

## **Snacks on a cinnamon and benzoate free diet**

Some snacks can contain added spices and initially it can seem difficult to know what have when you are following a cinnamon and benzoate free diet. Below are some ideas to help you with this. N.B. some of the following foods can have flavourings added so always check your labels.

### **Savoury snacks**

Prawn crackers

Rice cakes

Popcorn

Plain or salted crisps or nuts

Plain crackers and water biscuits

Cracker breads

Taramasalata, hummus and tzatziki (check labels)

Vegetable sticks (e.g. cucumber, peppers, carrots)

Cheese (e.g. such as cheddar, Wensleydale, goats cheese, Edam, Brie, Camembert)

Olives

Plain croissants and butter

Crumpets with butter (and/or marmalade, lemon curd, honey, peanut butter or other allowed preserves)

Muffins with melted cheese

Toast with butter or peanut butter or cheese (and/or marmalade, lemon curd, honey or other allowed preserves)

### **Sweet snacks**

Meringues (mix with double cream and lemon curd or ginger preserve for an easy pudding)

Plain yoghurt (add some allowed fruit e.g. banana, kiwi, apple, pear etc or lemon curd, honey, ginger preserve)

Plain scones and butter (and allowed preserves e.g. pear, ginger, apple preserve, honey, lemon curd)

Sweet waffles

Crumpets with butter

Muffins with melted cheese

Tea biscuits, ginger nut biscuits, short bread biscuits, digestive biscuits

## **Cosmetics, toiletries and hygiene products**

Most hygiene products and cosmetics contain derivatives of cinnamon and benzoates. Cinnamon and benzoates may be added to cosmetics as preservatives or perfume agents.

It is not clear if cinnamon and benzoates added to cosmetics contribute or exacerbate symptoms in OFG but there is some evidence that they can be absorbed through the skin. For this reason we advise wherever possible that you try and find products free from cinnamon and benzoates particularly ones you would use directly on your face such as face creams, lip balms, •make up and sunscreens.

Cinnamon and benzoate free products can be difficult to find and manufacturers can change the ingredients they use at any time making it difficult to provide up-to-date information on suitable hygiene products and cosmetics. Some may contain cinnamon or cinnamon derivatives so it is always important to check the ingredients before you buy and use a product.

Ingredients to check include:

- Benzoic acid
- Sodium benzoate
- Potassium benzoate
- Benzyl alcohol
- Ethylhexyl methoxycinnamate
- Parfum, benzyl benzoate
- Cinnemaldehyde
- Amyl cinnemaldehyde
- Amyl cinnamyl alcohol
- Amyl cinnamyl acetate
- Benzyl cinnamate
- Cinnamyl cinnamate
- Parabens: Methyparaben, ethylparaben, propylparaben and butylparaben

Please note this list is not exhaustive as derivatives for cinnamon and benzoates are extensive but it does provide a rough guide.

Below are 10 tips to help you select and use suitable products:

1. Wherever possible (although often difficult) try to minimise your use of products with fragrance as "parfum" can contain cinnamon or cinnamon derivatives to which you may be sensitive.
2. Baby products are sometimes free from fragrances. Baby products often contain minimal preservatives and additives so it may help to use these rather than normal versions.
3. Lip balms can grow germs which may exacerbate symptoms or increase your risk of infection particularly if your lips are cracked or prone to bleeding. If you are using a stick you can clean it with a little tissue before and after application. When using lip balms or lip sticks, replace them regularly and apply with clean hands.
4. Mineral make-ups are often free from cinnamon and benzoates and are useful when looking for suitable make-up products.
5. Health food shops and manufacturers specialising in "organic" or "natural" products are often useful for finding suitable products. You will still need to check the ingredients as the majority will contain added cinnamon, cinnamon derivatives and benzoates.
6. Cinnamon and benzoate free sunscreens can be very difficult to find in high street shops. It is best to be prepared and purchase these products before going on holiday or being exposed to the sun.
7. Crystal mineral deodorants are free from cinnamon and benzoates and are often stocked in High Street chemists.
8. Parabens (methylparaben, ethylparaben, propylparaben and butylparaben) are derivatives of benzoates that can be used in foods and cosmetics. Products will often state if they are free from parabens which can be helpful but check that there are not other ingredients that are cinnamon and benzoate derivatives.
9. If you are going to use a new product that is going to be used on your face or lips and are worried that it might cause a reaction, try it first on a small area to assess your response. Try a small amount of the product on one part of your lips or face and only use this part for the assessment. Do this for a minimum of 4 days before using the product freely. Before starting anything new it is best to be symptom free or at least have stable OFG (i.e. you are not having a flare up). Do not make any other dietary or cosmetic changes whilst undertaking this assessment.
10. When reading labels, ingredients are listed in order of quantity. The lower down the ingredient list a compound is the less of it there is in that product.

**Notes:**