

In pursuit of science, innovating for life



FOOD INTOLERANCE

PATIENT BOOKLET



Patient Information Booklet for Food Intolerance 60 Allergens Tests



Table of Contents

1	INTRODUCTION	2
2	PROTIA IGG - A (60 ALLERGENS)	3
3	NON COMMUNICABLE DISEASES	4
	3.1 Lactose	5 8
	3.2 Celiac Diseases	
	3.3 Eggs	11
	3.4 Nuts	13
	3.5 Fructose	15
	3.6 Yeast	18
	3.7 Shellfish	20
	3.8 Meat	22
4	Keeping a Food Diary	24
5	References	25



INTRODUCTION

Food intolerance

A food intolerance is when you have difficulty digesting certain foods or ingredients in food. It's not usually serious, but eating the food you're intolerant to can make you feel unwell.

Check if you have a food intolerance

If you have a food intolerance, you usually get symptoms a few hours after eating the food or ingredient you're intolerant to.

Common symptoms include:

- diarrheas
- bloating
- farting
- tummy pain

But there are lots of other possible symptoms, including headache, feeling tired or exhausted, feeling sick, constipation, joint pain or rashes.

Symptoms can last for a few hours or days.

Treatment for a food intolerance

If you have a food intolerance, try to avoid or reduce eating the food you're intolerant to, including foods where you're intolerant to any of the ingredients.

But it's important to not cut foods out of your or your child's diet without the advice of a GP or food and nutrition specialist (dietitian).

This is because you or your child could miss out on certain vitamins and minerals, which are especially important for a child's growth and development.

PROTIA-FOOD IGG (60 ALLERGENS)

PROTIA Allergy-Food IgG panel

is an in vitro diagnostic test in the quantitative determination of allergen-specific IgG concentrations in human serum or plasma using the immunoblotting technique.

Specification

- Multiple screening 60 allergen in total one Panel
- \bullet Small serum or plasma volume for testing: 50 μL ideal for paediatrics
- Multiplex, Quantitative detection of allergen specific IgG
- On strip Internal Calibration lines



Allergens list

- ALMOND
- HAZELNUT
- PINE NUT
- SESAME
- CACAO
- SWEET CHESTNUT
- PEA
- SOY BEAN
- PEANUT
- WALNUT
- PSTACHIO NUT
- SUNFLOWER
- CORN
- RYE
- BUCKWHEAT
- BARLEY
- RICE
- WHEAT
- EEL
- CODFISH

- MACKEREL
- SALMON
- TUNA
- PLAICE
- ANCHOVY
- TROUT
- OYSTER
- SCALLOP
- CLAM
- BLUE MUSSEL
- LOBSTER
- PACIFIC SQUID
- CRAB
- SHRIMP
- EGG YOLK
- EGG WHITE
- MILK
- LAMB MEAT
- BEEF
- CHICKEN

- PORK
- CARROT
- CELERY
- MUSHROOM
- POTATO
- CUCUMBER
- GARLIC
- ONION
- TOMATO
- EGG PLANT
- APPLE
- BANANA
- COCONUT
- GRAPE
- PEACH
- STRAWBERRY
- ORANGE
- MANGO
- KIWI
- YEAST, BAKER'S

Noncommunicable diseases



What are Non-Communicable Diseases?

- Non-communicable diseases (NCDs) are diseases that are not transmitted (spread) directly from one person to another.
- NCDs are also known as lifestyle diseases or chronic diseases.
- The majority of these diseases are caused by the way people live and are preventable

Overview

Noncommunicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

NCDs disproportionately affect people in low- and middle-income countries, where more than three quarters of global NCD deaths (31.4 million) occur.

People at risk

People of all age groups, regions and countries are affected by NCDs. These conditions are often associated with older age groups, but evidence shows that 17 million NCD deaths occur before the age of 70 years. Of these premature deaths, 86% are estimated to occur in low- and middle-income countries. Children, adults and the elderly are all vulnerable to the risk factors contributing to NCDs, whether from **unhealthy diets**, physical inactivity, exposure to tobacco smoke or the harmful use of alcohol or air pollution.

These diseases are driven by forces that include rapid unplanned urbanization, globalization of **unhealthy lifestyles** and population ageing. Unhealthy diets and a lack of physical activity may show up in people as raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors and can lead to cardiovascular disease, the leading NCD in terms of premature deaths.

Metabolic risk factors

Metabolic risk factors contribute to four key metabolic changes that increase the risk of NCDs:

- · raised blood pressure;
- overweight/obesity;
- · hyperglycemia (high blood glucose levels); and
- hyperlipidemia (high levels of fat in the blood).

In terms of attributable deaths, the leading metabolic risk factor globally is elevated blood pressure (to which 19% of global deaths are attributed) (1), followed by raised blood glucose and overweight and obesity.

Lactose Intolerance

Lactose intolerance is when your body can't break down or digest lactose. Lactose is a sugar found in milk and milk products.

Lactose intolerance happens when your small intestine does not make enough of a digestive enzyme called lactase. Lactase breaks down the lactose in food so your body can absorb it. People who are lactose intolerant have unpleasant symptoms after eating or drinking milk or milk

Lactose intolerance is not the same thing as having a food allergy to milk.

Lactose intolerance can affect you every time you eat a snack or meal. So you need to be careful about the foods you eat every day. However, many people can tolerate a certain amount of lactose and don't need to completely avoid it.



often added to some boxed, canned, frozen, food has lactose in it, such as: and prepared foods such as:

- Bread
- Cereal
- Lunch meats
- Salad dressings
- Cake and cookie mixes
- Coffee creamers

It's important to read food labels. Lactose is Check food labels for words that may mean a

- Butter
- Cheese
- Cream
- Dried milk
- Milk solids
- · Powdered milk
- Whey



Dairy

What causes lactose intolerance?

Both children and adults can have lactose intolerance. Here are some common causes of this condition:

- Lactose intolerance often runs in families (hereditary). In these cases, over time a person's body may make less of the lactase enzyme. Symptoms may start during the teen or adult years.
- In some cases, the small intestine stops making lactase after an injury or after a disease or infection.
- Some babies born too early (premature babies) may not be able to make enough lactase. This is often a short-term problem that goes away.
- In very rare cases, people are born with an inability to make any lactase at all.

What are the symptoms of lactose intolerance?

Each person's symptoms may vary. Symptoms often start about 30 minutes to 2 hours after you have food or drinks that have lactose.

Symptoms may include:

- Belly (abdominal) cramps and pain
- Nausea
- Bloating
- Gas
- Diarrhea

How severe your symptoms are will depend on how much lactose you have ingested and how much lactase your body makes.



How is lactose intolerance treated?

There is no treatment that can help your body make more lactase. But you can manage your symptoms by changing your diet.

In the past, people who were lactose intolerant were told to avoid dairy products. Today, health experts suggest you try different dairy foods and see which ones cause fewer symptoms. That way you can still get enough calcium and other important nutrients.

Lactose intolerance symptoms can be unpleasant, but they won't hurt you. So try to find dairy foods that don't cause severe symptoms.

Here are some tips for managing lactose in your diet:

- Start slowly. Try adding small amounts of milk or milk products and see how your body reacts.
- Have milk and milk products with other foods. You may find you have fewer symptoms if you take milk or milk products with your meals. Try eating cheese with crackers or having milk with cereal.
- Eat dairy products with naturally lower levels of lactose. These include hard cheeses and yogurt.
- Look for lactose-free and lactose-reduced milk and milk products. These can be found at many food stores. They are the same as regular milk and milk products, but they have the lactase enzyme added to them.
- Ask about lactase products. Ask your healthcare provider if you should take a lactase pill or lactase drops when you eat or drink milk products.

If you have trouble finding dairy products that don't cause symptoms, talk to your healthcare provider. He or she can suggest other foods to be sure you get enough calcium. You may need to take calcium supplements.

Children with lactose intolerance should be seen by a healthcare provider. Children and teenagers need dairy foods. They are a major source of calcium for bone growth and other nutrients essential to children's health and development.



Celiac Disease

Celiac disease is an illness caused by an immune reaction to eating gluten. Gluten is a protein found in foods containing wheat, barley or rye.

If you have celiac disease, eating gluten triggers an immune response to the gluten protein in your small intestine. Over time, this reaction damages your small intestine's lining and prevents it from absorbing nutrients, a condition called malabsorption.

The intestinal damage often causes symptoms such as diarrhea, fatigue, weight loss, bloating or anemia. It also can lead to serious complications if it is not managed or treated. In children, malabsorption can affect growth and development in addition to gastrointestinal symptoms.



The symptoms of celiac disease can vary greatly. They also may be different in children and adults. Digestive symptoms for adults include:

- Diarrhea.
- Fatigue.
- · Weight loss.
- Bloating and gas.
- · Abdominal pain.
- Nausea and vomiting.
- Constipation.



Children with celiac disease are more likely than adults to have digestive problems, including:

- Nausea and vomiting.
- · Chronic diarrhea.
- · Swollen belly.
- Constipation.
- Gas.
- · Pale, foul-smelling stools.

The inability to absorb nutrients might result in:

- Failure to thrive for infants.
- Damage to tooth enamel.
- Weight loss.
- · Anemia.
- Irritability.
- Short stature.
- Delayed puberty.
- Neurological symptoms, including attention-deficit/hyperactivity disorder (ADHD), learning disabilities, headaches, lack of muscle coordination and seizures.

However, more than half the **adults** with celiac disease have symptoms that are not related to the **digestive system**, including:

- Anemia, usually from iron deficiency due to decreased iron absorption.
- Loss of bone density, called osteoporosis, or softening of bones, called osteomalacia.
- Itchy, blistery skin rash, called dermatitis herpetiformis.
- · Mouth ulcers.
- Headaches and fatigue.
- Nervous system injury, including numbness and tingling in the feet and hands, possible problems with balance, and cognitive impairment.
- Joint pain.
- Reduced functioning of the spleen, known as hyposplenism.
- Elevated liver enzymes.

Foods containing gluten (not safe to eat)

If you have **coeliac disease**, do not eat the following foods, unless they're labelled as glutenfree versions:

- bread
- pasta
- cereals
- · biscuits or crackers
- cakes and pastries
- pies
- · gravies and sauces

It's important to always check the labels on the foods you buy. Many foods (particularly processed foods) include additives which contain gluten, such as malt flavouring and modified food starch.

Gluten may also be found in some non-food products, including some medicines.

Cross-contamination can happen if gluten-free foods and foods that contain gluten are prepared together or served with the same utensils.

Gluten-free foods (safe to eat)

If you have coeliac disease, you can eat the following foods, which naturally do not contain gluten:

- most dairy products, such as cheese, butter and milk
- fruits and vegetables
- meat and fish (although not breaded or battered)
- potatoes
- · rice and rice noodles
- · gluten-free flours, including rice, corn, soy and potato flour

By law, food labelled as gluten-free can contain no more than 20 parts per million (ppm) of gluten.

For most people with coeliac disease, these trace amounts of gluten will not cause a problem.

Advice on feeding your baby



Do not introduce gluten into your baby's diet before they're 6 months old. Breast milk is naturally gluten-free as are all infant milk formulas.

Supplements

As well as cutting gluten out of your diet, a GP or dietitian may also recommend taking vitamin and mineral supplements if you need them, for example for iron deficiency anaemia

This will ensure you get all the nutrients you need while your digestive system repairs itself.

Egg Intolerance

People with an **egg intolerance** experience adverse reactions to eating eggs. This can result in various symptoms, including bloating, cramps, nausea, or diarrhea.

Although an egg intolerance is not typically dangerous, it can be uncomfortable and bothersome. If a person has an egg intolerance, they may need to avoid eating eggs or only consume small amounts. However, egg alternatives are available to help people find a replacement.

Identifying egg products

If a person is trying to avoid eggs altogether, they may wish to read the labels on food products before consuming them.

These are some **common food** ingredients that contain eggs:

- egg whites, dried eggs, egg yolks, or powdered eggs
- albumin
- apovitellin
- globulin
- livetin
- lysozyme
- ovalbumin
- ovoglobulin
- ovomucin
- ovomucoid
- ovotransferrin
- ovovitelia
- ovovitellin
- silicialbuminate
- simplesse
- vitellin

One way to be sure a product is egg-free is to look for products that are certified vegan. If a product is vegan, it will not include eggs or any other animal products.

As eggs are a common food allergen, the Food and Drug Administration (FDA) requires food manufacturers to list them on the label.



Symptoms of an egg intolerance may include:

- nausea
- bloating
- stomach pain or cramps
- diarrhea
- vomiting
- indigestion

Egg alternatives



If a person needs to avoid eggs entirely, there are alternatives.

Tofu

Applesauce and other pureed fruits,

such as banana, can be a replacement for eggs in baking.

Flax or chia seeds

mixed with water can replace the eggs in baking.

Manufacturers make egg replacers

from plant-based starches, soy, nuts, or seeds.

Aquafaba

which is the liquid that results from cooking chickpeas and other legumes, can replace egg whites.

Risks

Eggs are a good source of protein and other nutrients.

If a person must avoid eggs, they should be sure their diet includes other sources of essential nutrients. People who avoid certain foods or who follow a special diet should see a doctor or nutritionist to ensure they are getting all the nutrients they need.

NUTS INTOLERANCE

If you have an intolerance (defined as a food-specific IgG reaction) to nuts, your body produces an inflammatory response to one or more of the particular nut proteins. It is important to understand that a nut Intolerance is very different to nut allergy.

If you have an allergy to nuts, you may feel unwell immediately after consuming them, experiencing a serious reaction which often requires instant medical attention. If you have nut intolerance, the reaction you may experience would be delayed and less severe.

As with all food intolerances, nut intolerance symptoms might take up to 72 hours to appear. This means that pinpointing nuts as the exact trigger can be difficult, and when experiencing symptoms it can be easy to assume that something eaten more recently is the cause*.

If you suspect that nuts could be making you feel ill but can't be certain, then taking a **food intolerance test** is a good idea.

This way you can eliminate any guesswork, and find out whether it really is nuts, or something else, that's triggering your food intolerance symptoms. Finding out your own personal dietary intolerances and the effects they have on your health and wellbeing is important to ensure you make the best possible food choices to balance your diet.



Symptoms of an nut intolerance may include:

- Nausea
- Boating
- Wind
- Stomach pain or cramps
- Diarrhea
- Running nose / Sinusitis
- Ezcema/ Itchy Skin/ Acne
- tiredness
- indigestion



A true food allergy affects the immune system. Even small amounts of the offending food can trigger a range of symptoms, which can be severe or life-threatening. In contrast, a food intolerance often affects only the digestive system and causes less serious symptoms.

If you have a food intolerance, you may be able to eat small amounts of the offending food without trouble. You may also be able to prevent a reaction.

Causes of food intolerance include:

- Absence of an enzyme needed to fully digest a food.
- Irritable bowel syndrome. This chronic condition can cause cramping, constipation and diarrhea.
- Sensitivity to food additives. For example, sulfites used to preserve dried fruit, canned goods and wine can trigger asthma attacks in people who are sensitive to food additives.



Fructose Intolerance

What to know about fructose intolerance!

Fructose is a sugar that occurs naturally in fruits, vegetables, and honey. People with fructose intolerance cannot digest these sugars as normal.

People with a more severe form of fructose intolerance called hereditary fructose intolerance will develop symptoms in infancy. Without treatment, they may develop life threatening complications such as liver and kidney failure.

As with other food sensitivities, a combination of genetics, lifestyle factors, exposure to fructose, and overall health may play a part in causing it.

Hereditary fructose intolerance is a serious type of fructose intolerance. However, it is treatable and manageable.

It occurs when a person cannot digest fructose and fructose precursors such as brown sugar.

Those with hereditary fructose intolerance <u>l</u>ack sufficient activity of an enzyme that helps digest fructose.

The undigested fructose accumulates in the liver and kidneys. This may lead to serious and even life threatening complications such as liver failure and kidney failure.



Types of fructose intolerance symptoms

Fructose malabsorption may cause:

- gas
- bloating
- diarrhea
- nausea

Hereditary fructose intolerance is present at birth, which means that most babies will experience symptoms when they begin eating solid foods.

Symptoms include:

- a strong dislike of sweets
- · growth delays
- vomiting
- jaundice
- impaired physical development
- hyperventilation
- · liver or kidney failure

Treatment and management

Fructose malabsorption

People with fructose malabsorption should keep a food log and follow a low fructose diet. Reducing fructose intake typically eases symptoms within about 2-6 weeksTrusted Source, according to 2014 research.

After symptoms reduce, a person can gradually reintroduce foods to determine how much fructose they can tolerate.

Typically, those with fructose malabsorption can consume 10–15 grams of fructose a day without experiencing symptoms.

Hereditary fructose intolerance

No treatment can cure hereditary fructose intolerance. Instead, a person should avoid consuming fructose.

As a fructose-free diet requires a person to avoid all fruits and numerous other foods, they may need support to eat a balanced, nutritious diet.

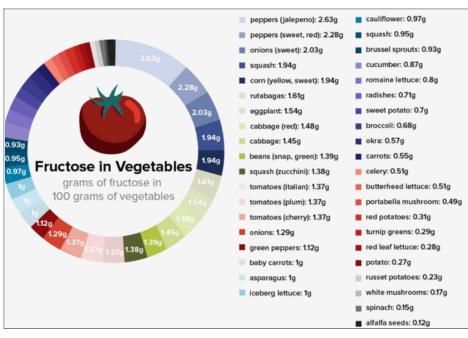
People with **fructose malabsorption** often find their symptoms ease by eating less fructose but not completely removing fructose from their diet.

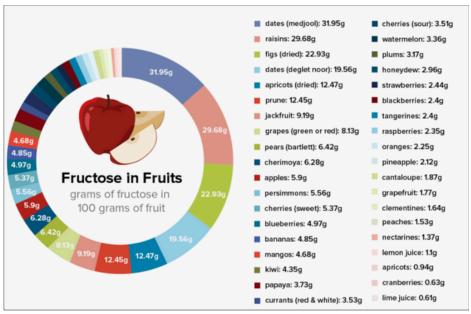
However, people with **hereditary fructose intolerance** must eliminate fructose from their diet.

To do this, they will need to avoid the following foods:

- any foods and beverages containing high fructose corn syrup, which includes many processed items such as soda and prepackaged baked goods
- · sorbitol, which is present in many candies and gums
- fruit
- fruit-sweetened snacks







Yeast Intolerance

Yeast is present in a variety of different foods, most commonly baked goods and alcoholic beverages. If you suspect you are intolerant to a food product you should keep a food diary, which should include the foods you eat and the associated symptoms. This way your doctor can identify which food groups trigger an adverse reaction and whether there is a common ingredient in these offending foods.

The more effective way of finding out whether you're intolerant to yeast is to follow a yeast-free diet for a couple of weeks, and see whether there is any improvement in symptoms. If there is a significant improvement a yeast intolerance may be the reason.

Symptoms of Yeast Intolerance

Yeast intolerance has a very broad range of symptoms, which include:

- Flatulence
- Bad breath
- Fatigue
- Irritable
- Excessive cravings for sugar filled foods
- Stomach cramps
- Feel bloated
- Bad skin e.g. ache and eczema
- Indigestion



Following a yeast-free diet should help reduce the onset of symptoms. Yeast is found is used in food manufacturing processes such as the fermentation of wine and beer, and can be found In everyday food products such as bread and cheese. A yeast-free diet may seem challenging, but it sometimes it can be the best preventative measure against symptoms arising.

Here is the main yeast containing foods to avoid:

- Baked goods contain baker's yeast and should be avoided this included bread and pastries
- Vinegar and vinegar containing foods
- · Beer and wine
- Foods that have gone through fermentation in your manufacturer process this includes most alcohols
- Dried fruits, processed fruit juices and canned tomatoes contain yeast or moulds
- Fruits e.g. dates, figs, grapes, prunes and raisins
- Cereals and grains e.g. cane sugar and malt
- Cheeses
- Ice cream
- Fried meats
- Hot dogs
- Nuts and seeds e.g. peanuts and pistachios
- Condiments e.g. black pepper, ketchup, mayonnaise, pickles, relish, salad dressings, vanilla, vinegar and yeast extracts
- Vegetables e.g. mushrooms and olives



You should wash all fresh fruits and vegetables before consumption to remove any moulds growing on their surfaces. Medication and supplements may be made from yeasts and moulds and should be avoided, these include: penicillin and vitamin B tablets.



To help keep to your yeast-free diet; you should always check food labels for any yeast containing ingredients. Also, many find it helpful to keep a food diary. In a food diary you should include all foods eaten along with any associated symptoms. This way you can find the pin point the exact causes of any symptoms and eliminate those offending foods from your diet. Also, it is helpful to make a list of all foods that trigger an adverse reaction.

Shellfish Intolerance

Fish and shellfish consumption has seen a steady rise in the past decade as more people add it to their diets. Whether it's a shrimp scampi or a summer clambake, shellfish can be a great way to get Omega-3 and 6 fatty acids into your diet. But not everyone's body reacts well to seafood. If you have an intolerance or sensitivity (defined as a food-specific IgG reaction), eating these shellfish may actually be a problem food. Could your stomach cramps actually be a sign of shellfish sensitivity?

What Causes Shellfish Intolerance?

- A shellfish intolerance occurs when your digestive system does not have the
 appropriate enzymes to break down shellfish protein, producing an inflammatory
 response and difficulty digesting. This is different from a shellfish food allergy which
 induces adverse reactions by the body's immune system. These reactions tend to be
 more serious and could be life threatening especially if they cause an anaphylactic
 reaction affecting the respiratory system.
- Whilst you need to actually eat shellfish to experience intolerance symptoms, with a shellfish allergy you can experience symptoms from just touching or cooking shellfish depending on the severity of the food allergy.
- It's also important to note that one off digestive reactions to shellfish could also stem from food poisoning rather than a food intolerance if the shellfish is appropriately prepared or not fresh. It is for this reason that it's a good idea to keep a food diary to monitor offending foods.



Signs Of Shellfish Intolerance

Shellfish sensitivity intolerance can appear up to 72 hours after eating shellfish and can range from mild symptoms to hypersensitive reactions. If you are suffering from a seafood or shellfish intolerance, it is important to discover which particular seafood is the offending food.

Digestive symptoms of shellfish sensitivity may include:

- · Abdominal pain
- Bloating
- Nausea
- Vomiting
- Diarrhea

Where To Look

If shellfish is present in a food product, it is usually listed on the packaging. However, it is a good idea to familiarise yourself with the various types of seafood and shellfish to be aware of if you have a seafood intolerance.

- White fish (cod, plaice, sole, coley, haddock, pollock, monkfish)
- Oily fish (mackerel, tuna, sardines, anchovies, salmon, pilchards, herring, trout, tuna)
- Molluscs (clams, mussels, oysters, snails, scallops, squid, octopus)
- Crustaceans (crab, lobster and shrimp)

Replacements For A Balanced Diet

White fish is an excellent source of protein, vitamins and minerals. The Food Standards Agency recommends that we eat at least two portions of fish a week, with at least one of these being oily fish which is particularly nutritious.

However, if you are suffering from a seafood intolerance, it is important to discover which seafood in particular you react to and to make sure you include suitable fatty acid replacements in your diet such as:

- · Leafy greens such as spinach
- Avocado
- · Walnuts, brazil nuts, hazelnuts and pecans
- Olive oil and flaxseed oil
- Eggs
- · Sesame butter, pumpkin seed butter
- Tofu
- Coconut oil

If you have found out that you are intolerant to seafood or shellfish, changing your diet need not be daunting. Nutritional Therapists are here to help you understand how to optimise your food choices.

Meat Intolerance

Meat Intolerance Explained

Meat intolerance refers to your body's difficulty in digesting meat (beef, lamb, and pork) and experiencing adverse physical reactions to them.

This condition, while not life-threatening, could be a sign of other issues such as **irritable** bowel syndrome (IBS) or Crohn's disease.

Causes:

- Inadequate chewing: If you don't chew meat properly, your digestive system may have a hard time processing huge chunks of it. Try taking smaller bites of meat so you can digest it properly.
- Insufficient fibre intake: You may experience meat intolerance if your diet is low in fibre, which is an invaluable digestion aid. Eating plenty of fibre-rich vegetables such as Brussels sprouts, spinach, and broccoli will help you tolerate meat better.
- Large portion sizes: Eating huge portions of meat such as steak or ribs can cause meat intolerance. It can take your digestive system two days to digest meat because its fat and protein content contain complex molecules. Eating smaller portion sizes should help your body digest meat properly.



What are the Symptoms of Meat Intolerance?

Symptoms of meat intolerance include:

- Bloating: Eating huge amounts of meat can slow down the elimination of waste from your stomach. This, in turn, may cause <u>bloating</u>.
- Nausea: This is one of the most common symptoms of meat intolerance. If your stomach feels uneasy after consuming meat, it could be a sign your body isn't digesting it properly.
- Fatigue: Meat intolerance may cause your bowels to get stuck, giving you a heavy feeling in your gut which makes you feel tired.
- Weaker immunity: Red meat has a natural sugar known as Neu5Gc. Since the human body doesn't produce it, it considers this sugar as a foreign invader. When your body cannot tolerate meat, you may experience a toxic immune reaction which weakens your immunity and makes you susceptible to various ailments.
- Bad breath/body odour: Improperly-digested meat has a foul odour that will eventually get released through your mouth and pores
- High blood pressure: Too much sodium in the meat you consume may result in hypertension which is a leading cause of heart attacks and strokes.
- Dark circles under the eyes: Your body will try to produce antibodies to expel meat particles in your bloodstream which it considers as foreign invaders. This defence mechanism may produce an unwanted side effect dark circles under your eyes.
- Constant hunger pangs: Whenever you eat too much protein and not enough carbohydrates, your blood sugar levels decrease. The end result: you feel constant hunger.
- Constipation: Red meat has high iron content. If your digestive system retains too much iron, you may feel constipated.

What Should I Do If I Have Meat Intolerance?

If your doctor or dietitian determines you have meat intolerance, you should avoid consuming the particular meat which triggered your symptoms. Take the necessary precautions when eating out. Cook your own food as often as possible. Not only is this a safer alternative, but it's also cheaper.

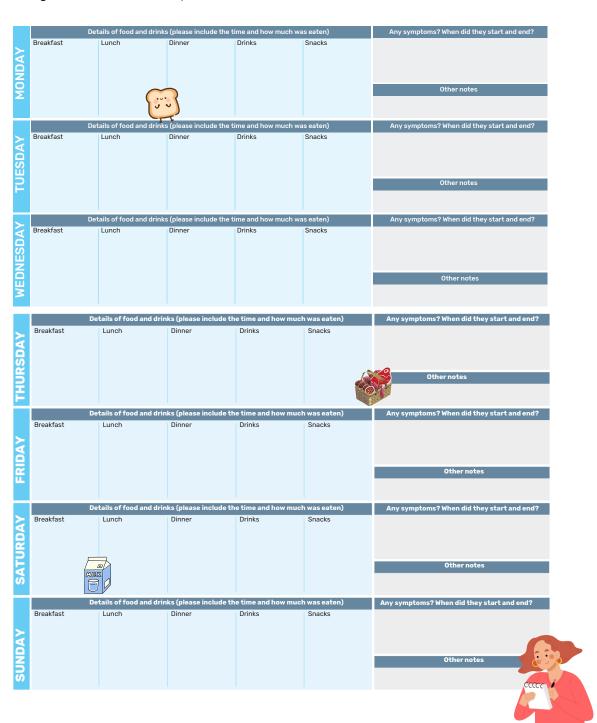
Instead of eating beef, pork, or lamb, try consuming plant-based protein sources such as lentils, quinoa, kidney beans, chickpeas, eggs, nuts, seeds, tofu, tempeh, and edamame.

Using IgG Food Test to Identify Your Meat Intolerance

Recommendation using an IgG food test to help you identify exactly which meat triggers your symptoms and how that particular food affects you. It will also help your doctor or dietitian develop the most suitable intervention plan for you.

Keeping a Food Diary

Having a food and symptom diary is a great tool to help you identify allergies and intolerances to specific foods. It can also help you understand what worsens an existing condition. Take a look at our food diary template below and fill it out with as much detail as possible. Then, present it to your doctor or dietitian during your next appointment. It will assist them in planning and providing better treatment for you.



INTOLERANCE

REFERENCES

- 1 https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases#:~:text=The%20main%20types%20of%20NCD,disease%20and%20asthma a)%20and%20diabetes.
- 2 https://www.hopkinsmedicine.org/health/conditions-and-diseases/lactose-intolerance
- 3 https://www.nhs.uk/conditions/food-intolerance/#:~:text=A%20food%20intolerance%20is%20caused,such%20as%20cheese%20and%20yoghurts.
- 4 https://www.mayoclinic.org/diseases-conditions/celiac-disease/symptoms-causes/syc-20352220
- 5 https://www.medicalnewstoday.com/articles/egg-intolerance
- 6 https://smartblood.co.uk/foods-that-cause-food-intolerance/food-intolerances-tonuts-seeds-beans
- https://www.mayoclinic.org/diseases-conditions/food-allergy/expert-answers/food-7 allergy/faq-
 - 20058538#:~:text=A%20true%20food%20allergy%20affects,and%20causes%20less% 20serious%20symptoms.

8https://www.medicalnewstoday.com/articles/fructose-intolerance

- https://www.healthcentre.org.uk/allergies/food-intolerance-symptoms-of-yeast-intolerance.html
- 10 https://www.yorktest.com/us/intolerance/shellfish/#:~:text=A%20shellfish%20intolerance%20occurs%20when,by%20the%20body's%20immune%20system.
- 11 https://www.newlifenutrition.com.au/food-intolerances-and-allergies/how-do-i-know-if-i-have-meat-intolerance/#:~:text=One%20way%20to%20test%20intolerance,next%20two%20to%20six%20weeks

About Us

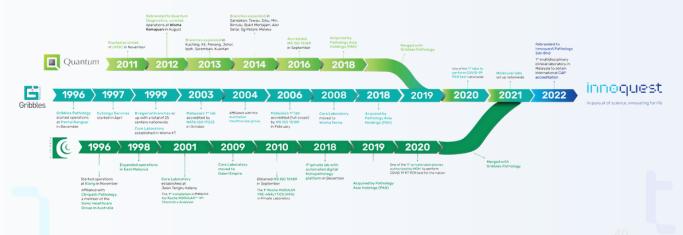
Innoquest Pathology, formerly known as Gribbles Pathology, started operations in Malaysia in 1996 and is now the largest private provider of diagnostic laboratory services in the country. Headquartered in Petaling Jaya, we employ over 1,200 staff nationwide and have an established network of over 85 electronically-linked pathology facilities throughout Peninsular Malaysia, Sabah and Sarawak.

Currently, Innoquest Pathology performs over 4 million patient episodes per year. It provides multidisciplinary diagnostic testing to over 10,000 Medical Practitioners, Hospitals and Corporate Clients.

Supported by a deep bench of industry expertise and our groundbreaking technology, Innoquest is proud to serve clinicians, hospitals, medical centers and their patients through the deployment of advanced diagnostic testing methods and technology. Our extensive network of laboratories offer a wide range of in-vitro diagnostic ("IVD") tests across laboratory medicine to help detect diseases or conditions and to monitor a person's health.

Innoquest Pathology is the ONLY multidisciplinary clinical laboratory in Malaysia to hold both College of American Pathology (CAP) and MS ISO15189 accreditations, reinforcing its best-in-class standards, services, and laboratory practices. Moving forward, this gives the diagnostics company greater opportunity to strengthen its global presence as a centre of excellence in testing.

Our Timeline





In pursuit of science, innovating for life

Innoquest Diagnostics Sdn. Bhd. [149031-W (198501016573)]

Headquarter Office

2nd Floor, Wisma Tecna 18A, Jalan 51A/223 46100 Petaling Jaya

Customer Careline: 1300 88 0234
International Call/ Emergency Backup Call: +603 7841 7752

Facsimile

03-7955 8454 (Client Services) 03-7957 7732 (Accounts) 03-7956 4916 (Marketing)

Email: enquiry@innoquest.com.my

