

FoodAlert

Norovirus Guide



Introduction

With UK COVID-19 measures gradually being eased, the ongoing risk of a new Norovirus in a population with low levels of immunity is a concern for health professionals. Whilst everyone is currently aware of hygiene control measures, it is not known whether these significant societal and behavioural changes will continue and lead to a reduction in transmission of infectious diseases, such as influenza and norovirus, going forward.

What we do know is that we have seen an increase in cases of norovirus being reported and there have been reports of increasing numbers of norovirus outbreaks across China since the easing of COVID-19 restrictions there.

This guidance is here to help prevent norovirus becoming a problem in your business. The effects can be devastating not only for your customers' health but also for your business. This extremely contagious virus infects from between 600,000 to a million people in the UK each year. Symptoms include vomiting, diarrhoea and fever. Once the virus is present, it is very easy to pass on to others and throughout your establishment.

According to the European Food Safety Authority (EFSA), norovirus is a major cause of acute gastroenteritis throughout Europe. The virus is transmitted through the consumption of contaminated food or water, via person-to-person contact or contact with infected surfaces. Food hygiene and safety is therefore vital to protect reputation and safeguard consumers against illness

In the UK, high profile cases of norovirus have also been widely reported. For example an Exeter Toby Pub & Carvery faced a private lawsuit from nearly 200 customers following a norovirus outbreak in 2015. The restaurant managers failed to close the premises immediately after the first notification of a problem, and subsequently more diners were struck down with the virus. In 2016, more than 300 people were ill at the Whahaca restaurant chain and restaurants were temporarily closed.

Being prepared with a good food safety plan, an educated workforce, and a focus on good hygiene and sanitation will not only go a long way to controlling norovirus, but other microorganisms causing foodborne illness as well.



How Common is Norovirus?

Noroviruses (NoVs) are the most commonly identified cause of infectious diarrhoea and vomiting in the community, often causing outbreaks.

A study commissioned by the FSA that assessed the contribution of the food chain to UK acquired norovirus infection¹ found that of all food types, shellfish were implicated in the greatest number of definite foodborne outbreaks. Food handlers contributed to definite food handler outbreaks involving a diverse range of foodstuffs and in a wide variety of settings, including weddings and military establishments.

What are the symptoms of norovirus?

The most common symptoms are nausea, vomiting (often projectile) and diarrhoea.

Other symptoms include a high temperature, headache and aching arms and legs. Symptoms usually come on suddenly within 1 to 2 days of being infected. The symptoms usually last around 12 to 60 hours, although they may remain carriers of the virus for several days longer. The virus is a self-limiting illness in most people, although some people (usually the elderly or very young) may become dehydrated and require hospital treatment.



How is Norovirus spread?

“Norovirus” actually consists of a large number of different strains of the virus and new strains continue to evolve. Norovirus needs a living host to replicate but it can survive outside the body for several days and be carried in food or water. It takes only a few viral particles to make people ill, however the vomit and faeces of an infected person can contain tens of thousands of viral particles hence its ability to spread quickly.

The most common sources and routes of infection are:



Poor hand washing

after using the toilet leaves hands contaminated with the virus. Hands will then contaminate any surface they come in contact with. Toilets and bathrooms become a major risk area for environmental contamination.



Faecal oral route

Norovirus is shed in the stool and vomit of infected people. It can quickly spread to hands and surfaces and is easily transmitted by close contact with infected individuals. Once it reaches a person, the virus must be taken in by mouth to infect them.



Carried on foods

Norovirus does not reproduce in food but it can be carried on it and some foods are more likely to be contaminated with norovirus for example shellfish (due to filter feeding which can concentrate virus particles present in water contaminated with sewage) and fruits and vegetables may also become contaminated when irrigated with contaminated water. It can also survive freezing and there have been a number of examples of Norovirus outbreaks originating from consumption of thawed, contaminated foods such as soft fruits.



Infected food handlers

Food and water can become contaminated when prepared or served by an infected food worker or by contact with contaminated surfaces. Outbreaks often occur in places where people gather and/or share food, such as in restaurants, healthcare and schools.



Ready to eat foods

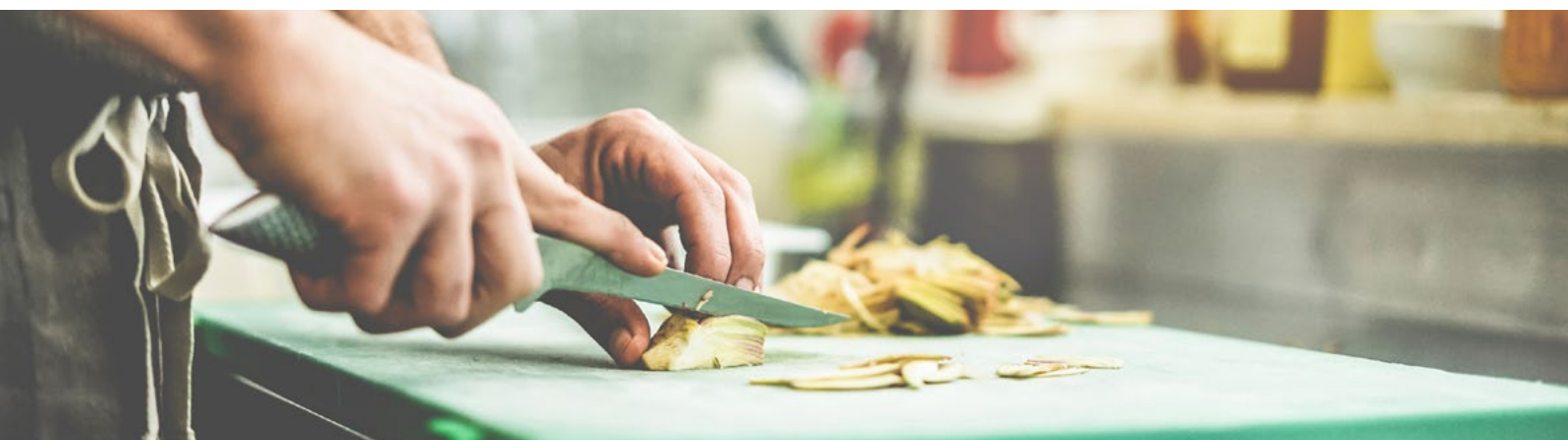
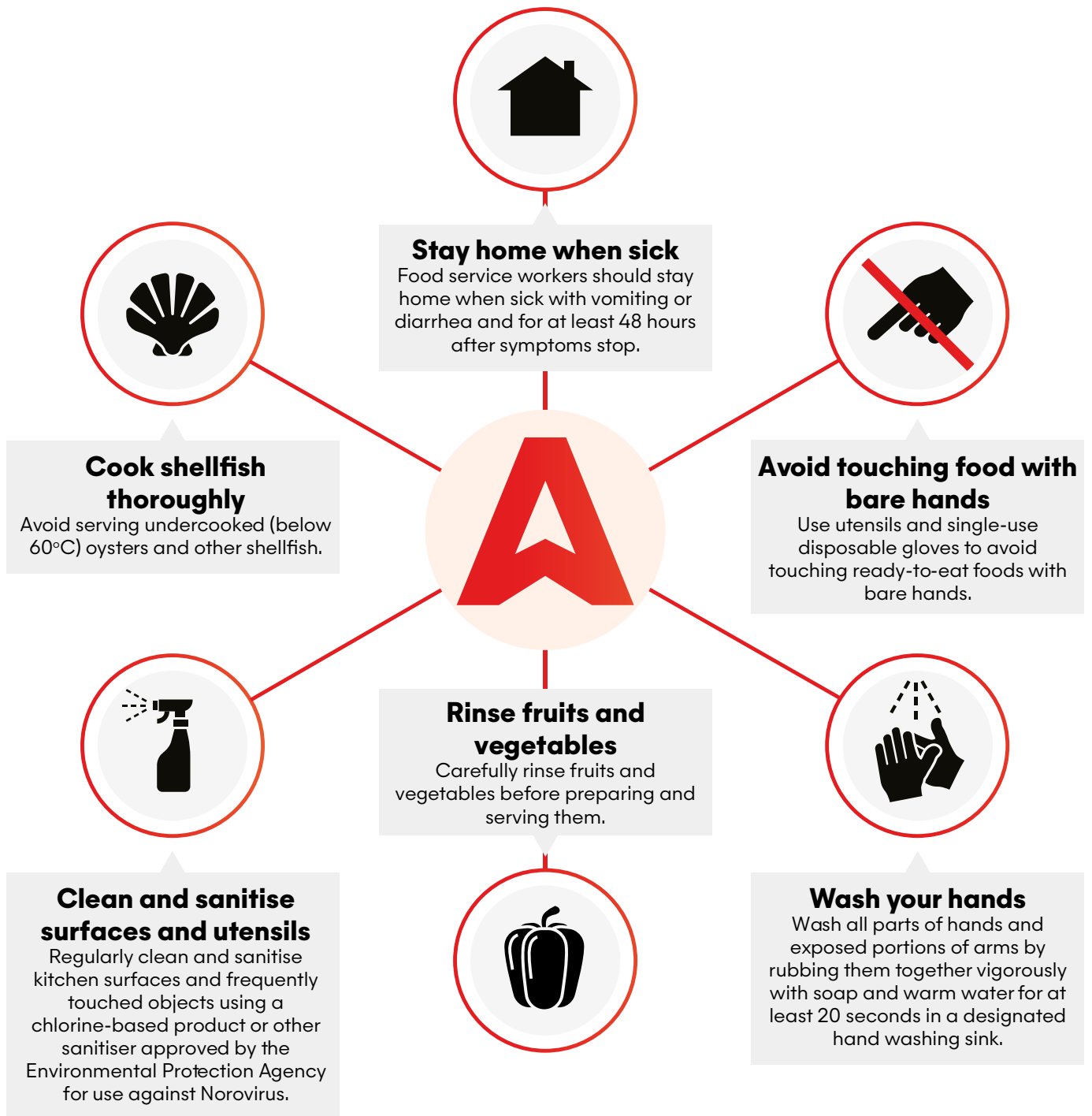
(e.g., salads, hand-sliced deli meats) can be contaminated by an infected food handler practicing poor personal hygiene.



Contact with contaminated surfaces or objects

Touching a contaminated surface and then placing the hand in the mouth can cause infection.

Preventing the spread of Norovirus



Practice good hand hygiene at all times

Food handlers have a role to play in preventing norovirus outbreaks and an FSA study showed that whilst food handlers were aware of risks, they sometimes exhibited poor behaviours such as not washing hands and returning to work too early after being sick.

Heightened awareness of infection control procedures following the COVID-19 pandemic may help to reduce these risks and creating a positive food safety culture is also key to ensuring that food handlers understand the consequences of not practising good food safety and do this as part of their everyday norms.

As with many viruses, washing hands thoroughly, particularly after using the toilet is a key control measure.

Hand washing with soap and warm water should be promoted and as with hand washing for COVID-19 this should last for 20 seconds.

You should provide an alcohol-based sanitiser as an additional precaution to hand washing for staff and guests but not instead of handwashing. Whilst alcohol hand gels are very effective against enveloped viruses such as COVID-19, norovirus (a non-enveloped virus) is more resistant. Higher alcohol levels are more effective - use above 70% alcohol.

Ensure handwashing stations are readily available and stocked at all times.

Follow Good Food Hygiene Practices

Therefore, quick cooking processes such as steaming shellfish may not be effective.

They can also survive freezing and outbreaks associated with frozen fruits have occurred.

You should thoroughly wash all fruit and vegetables.

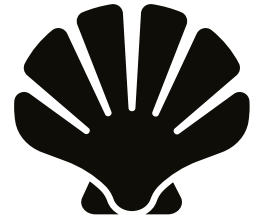
Food on open buffets or shared snacks in a bar area are a particular concern as there is a potential for contamination, especially if guests help themselves to food and transfer the virus from their contaminated hands.

If any food is suspected of being contaminated with norovirus throw it away.



A note on shellfish

Shellfish and salad ingredients are the most common foods to be implicated in Norovirus outbreaks without the presence of ill food handlers. Infection of raw or inadequately steamed clams and oysters can pose a high risk of infection.



- ✓ Always purchase shellfish from reputable sources.
- ✓ Keep consignment notes or traceability labels for any live bivalve molluscs.
- ✓ Ensure staff are trained on how to prepare shellfish safely for example shucking and rinsing of bivalve molluscs.
- ✓ Cook shellfish – whilst probing is not possible for some seafoods there will be other checks such as checking live bivalve shells have opened and they have shrunk in their shell, a change in colour to milky white and be firm to touch for scallops etc.
- ✓ Take extra care when preparing oysters to be served raw – follow your HACCP
- ✓ Only buy from suppliers who harvest from licensed beds and Grade A waters/ where there is an extended period of depuration.
- ✓ Ensure your suppliers carry out regular microbiological analysis of oysters for bacteria (this is a legal requirement) and check whether they are testing for norovirus. Many suppliers now do this although it is not legally required.
- ✓ Store oysters in the refrigerator below 8C with the concave shell downwards
- ✓ Throw away any oysters where the shell is damaged or remains open when tapped.
- ✓ Use clean shucking knives and shuck close to service.

Exclude Staff who are unwell

Employees working in foodservice or catering must inform their managers if they have suffered from food poisoning symptoms as soon as possible. Follow FSA Fitness to work Guidance.

Because of the ease with which Norovirus can be spread to other people, it is best practice to exclude symptomatic food handlers from the entire food business site and not just food handling duties and areas, even if Norovirus is only suspected

They **MUST** be excluded from work and not return until they have been free from symptoms for 48 hours. This is particularly important given the highly contagious nature of this virus.

Anyone who has household contact with someone infected with Norovirus should inform their manager.

Train staff

Educate staff in good food safety practices, norovirus symptoms, and ways to control the virus including exclusion from work periods.

Train new employees before they begin to work and provide refresher training to assure continued good practices.

Monitor staff Practices

Observe food safety practices of your staff and provide guidance when problems are identified. For example, make sure they are washing their hands properly as often as they should be, and are disinfecting surfaces correctly, with the right product, using the right concentration and contact time.



Regular Cleaning

Thorough cleaning and when necessary, disinfection will reduce the risk of norovirus outbreaks and you should follow your cleaning schedules.

In particular clean and disinfect hand contact and food contact surfaces regularly and clean all toilets frequently and regularly.

Know what to do if there is a vomiting incident

If an infected person vomits near other people or food, the virus can spread through the air in tiny particles of vomit and land on food and food-contact surfaces or infect people directly. Destroying any food that may have become unsafe and cleaning up and disinfecting over a wide area after someone has been sick in or near a food handling area is very important, including as a precaution even if Norovirus is not known to be the cause.

You should have a plan in place for cleaning after any episodes of vomiting/diarrhoea and this will help prevent confusion and panic if an incident occurs.

Ensure you have a stock of chemicals on site that can be used to clean up incidents of vomiting and diarrhoea and be aware of the necessary dilutions required to ensure a 0.1% hypochlorite solution (1000ppm) can be achieved.

It is a good idea to have an infection control kit that includes:

CHECKLIST

- Face coverings
- Disposable gloves and aprons
- Clinical waste bags or disposable household bags
- Sand/ body spillage granules
- Detergent and hypochlorite solution or a combined detergent and hypochlorite solution (1000ppm of available chlorine). Alternatively, a chlorine dioxide solution can be used
- Disposable paper towels and disposable cloths
- Plastic bucket and warm water
- Commercial body skill kits are available.

You should have written protocols for cleaning:

CHECKLIST

- Isolate the area and clear of guests
- Wear PPE – disposable gloves, aprons (and face coverings if available)
- Cover the spillage with sand/body spillage granules (or paper towels if not available).
- Scrape up vomit and dispose of in plastic bags – a plastic dustpan is useful as a scoop
- When as much of the material as possible has been removed, thoroughly wash the area and any equipment used with detergent and hot water.
- Disinfect using a 0.1% hypochlorite (bleach) based solution (1000ppm available chlorine). Cloths should be disposed of as waste.
- Thoroughly clean soiled carpets and soft furnishings with hot water and detergent or carpet shampoo.

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Steam cleaning can be used on soft furnishings (if the material can withstand cleaning with steam) and this will thoroughly decontaminate them. Carpets may need professional disinfection treatments

If food contact surfaces are contaminated, they should also be washed with detergent and hot water, using a disposable cloth, then disinfect with 0.1% bleach solution.

Otherwise, food preparation surfaces and hand contact surfaces should also be disinfected as part of normal cleaning and disinfection routines.

Staff members who may have been contaminated should remove their protective clothing and bag it up. They should wash their hands and arms thoroughly. Wash any contaminated laundry thoroughly on a hot cycle.

Bleach is the gold standard for cleaning body fluid spillages but if you do use other disinfectants, they must have proven efficacy against norovirus. Ensure employees applying cleaning products are knowledgeable in their safe use, effective concentrations and contact times.

Use the table below to achieve a 1000ppm (0.1%) bleach solution:

Strength of bleach (see label)		Disinfectant Ingredients		Volume in 10 litre bucket
%	Parts per million (ppm)	Parts of bleach	Parts of water	
1	10000	1	9	1000ml
2	20000	1	19	500ml
3	30000	1	29	333ml
4	40000	1	39	250ml
5	50000	1	49	200ml

It is important to take quick and decisive action as soon as cases are suspected and you need to be prepared with an action plan to prevent more cases occurring.

Strict hygiene standards must be followed to minimise the spread of norovirus.

Food Alert have qualified consultants who can help you with preventing and dealing with norovirus outbreaks so do contact us on [020 7244 1900](tel:02072441900) for advice and assistance. The quicker we are involved and the faster you act the less chance there will be of a serious outbreak occurring.



Further Guidance and References

- [FSA Funded Report Assessing the contribution made by the food chain to the burden of UK-acquired norovirus infection](#)
- [Guidelines for the management of norovirus outbreaks in acute and community health and social care settings.](#)
- [Food Handlers: Fitness to Work Regulatory Guidance and Best Practice Advice for Food Business Operators 2009](#)
- [RSPH: Norovirus: Preventing the spread of infection.](#)
- [Public Health England - Controlling Viral Gastroenteritis In hotels and other accommodation provide](#)
- [Norovirus Working Group Guidance for the Management of Norovirus Infection in Cruise Ships](#)



How can Food Alert help?

The measures and Food Alert solutions outlined in this guide only scrape the surface of what you need to do and how we can support you in order to prepare for norovirus.

If you'd like the backing of our expert team, simply give us a call on **020 7244 1900** and our team will be happy to discuss your compliance needs. Or get in touch with us **online** and we'll call you back at a time that suits you.