

Infected food handlers

Occupational aspects of management

Evidence-based guidance for
healthcare professionals



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This booklet summarises the findings of a review of current evidence¹ and sets out its resulting recommendations. It is intended to assist health professionals in providing advice to employers and food handlers.

Definition of a food handler

Food handlers are defined as employees who fall into the following categories:

- people employed directly in the production and preparation of foodstuffs, including those in the manufacturing, catering and retail industries
- people undertaking maintenance or repairing of equipment in food handling areas, whether permanent staff, workers on contract or visitors to food handling areas.

Food handling involves all aspects of treating and storing food from receipt of raw materials to the delivery of the final prepared product.

Transmission routes from an infected food handler

Infected food handlers are those individuals who carry an infection either with or without symptoms. The most common routes of transmission from infected food handlers are faecal–oral, person-to-person spread and via aerosol formation from vomit. Food handled frequently and raw foods are at the highest risk of becoming contaminated.

Types of food-borne disease from infected food handlers

Food-borne infections from infected food handlers result primarily in gastrointestinal infections.

Norovirus is the main agent of food-borne disease from infected food handlers in the UK, followed by *Salmonella enteritidis* and *Salmonella typhimurium*. Norovirus poses additional problems in the management of outbreaks of infection, as even very low numbers of particles can lead to infection.

Symptoms

Symptoms of infections which could be transmitted to food include:

- diarrhoea (with or without blood)
- abdominal cramps or pain
- nausea
- vomiting
- fever.

Occupational health advice

Pre-placement questionnaires are shown to be limited in their effectiveness in identifying gastrointestinal infections, as respondents may be asymptomatic and unaware of their disease status.

Recommendations

1 Recommendations based on the factors that have been associated with infected food handlers transmitting infection to food

Recommendation	Grade
Managers must ensure that a risk assessment of the food being prepared is carried out to ensure that effective controls are in place and accord with statutory requirements.	GPP
Food handlers need to be aware that they are at increased risk of infection if a household member has diarrhoea or vomiting.	B
Managers need to emphasise to food handlers the importance of reporting symptoms and signs of an infective illness.	B
Food handlers with diarrhoea or vomiting should refrain from work for 48 hours after symptoms subside. However, with <i>Salmonella typhi</i> , verotoxigenic <i>Escherichia coli</i> and hepatitis A, exclusion should be longer and advice should be sought from the Health Protection Agency.	D
Food handlers do not require hepatitis A vaccination at the current prevalence of hepatitis A levels in the UK.	D
Separation of food preparation from nappy changing areas would help to prevent contamination of food with <i>Shigella</i> .	B
Staff who both prepare food and change nappies need to pay particular attention to regular hand washing with a good technique.	B

2 What are the best methods for identifying food handlers who may have an infection that could be transmitted via food to the consumer?

Recommendation	Grade
Until further evidence is available, employers may wish to consider the use of a questionnaire, such as that recommended by the Department of Health, ² to detect potentially infected food handlers.	D

3 Which interventions are the most effective in preventing infected food handlers from transmitting infection to consumers via food?

Recommendation	Grade
Finger nails of food handlers need to be short enough to be effectively cleaned.	C
Use of soap and water should be the method of choice for hand washing. There is insufficient evidence to state how frequently hands should be washed.	B
A standardised hand-washing technique should be used, and demonstrated and explained by a competent staff member.	C
Demonstration of this technique should be repeated quarterly.	D
Standardised hand-washing procedures should be included in all inductions and regular training programmes for food handlers.	C
Hand-washing training sessions should be participatory and varied.	B
Food handlers need to thoroughly dry hands after washing, using either paper towels or a hot air dryer.	B
Gloves should not be used by food handlers solely for the prevention of transmission of micro-organisms to food.	C

Grades of recommendation

- A At least one meta-analysis, systematic review, or randomised controlled trial (RCT) rated as 1++, and directly applicable to the target population; *or* A systematic review of RCTs or a body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results
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- B A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or* Extrapolated evidence from studies rated as 1++ or 1+
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- C A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or* Extrapolated evidence from studies rated as 2++
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- D Evidence level 3 or 4; *or* Extrapolated evidence from studies rated as 2+

References

- 1 NHS Plus, Royal College of Physicians, Faculty of Occupational Medicine. *Infected food handlers: occupational aspects of management. A national guideline*. London: RCP 2008.
- 2 Department of Health. *Food handlers: fitness to work. Guidance for businesses, enforcement officers and health professionals*. London: DH, 1995.

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