

## Bird Flu (Avian Influenza)



Occupational advice for Poultry Workers and others who may have contact with live birds, their feathers, droppings or other by-products to include Live Bird Handlers, Poultry Farmers, Fallen Stock Collectors, Certain Poultry Processing and Hatchery Workers and those Veterinarians, Hauliers, Rendering Plant Workers and Maintenance Workers whose work involves such contact.

This booklet has been produced by a Working Group chaired by the Health and Safety Executive for Northern Ireland. It aims to provide information on bird flu and describes how to minimise the risks to people's health when working with poultry not suspected of being infected with avian flu.

This booklet is about bird flu. If you need the information in a different format or language, please contact HSENI or, alternatively, download it from HSENI's website [www.hseni.gov.uk](http://www.hseni.gov.uk)

Česky (Czech)	Tento leták je o ptačí chřipce. Pokud potřebujete informace v jiném formátu nebo jazyce, kontaktujte, prosím, HSENI nebo si dokument stáhněte z HSENI web stránky: <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Latviski (Latvian)	Šis buklets ir veltīts jautājumu izskaidrošanai par putnu gripu. Ja Jums ir nepieciešama informācija citās valodās vai arī citā formātā, lūdzam sazināties ar HSENI (Ziemeļīrijas Veselības un drošības Pārvaldi) Informācija ir pieejama arī HSENI interneta mājas lapā <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Lietuviškai (Lithuanian)	Šis bukletas yra apie paukščių gripą. Jeigu jums reikia informacijos, pateiktos kitame formate ar kita kalba, prašome kreiptis į Šiaurės Airijos Sveikatos Apsaugos Vykdomąjį (HSENI) arba alternatyviai aplankykite HSENI svetainę <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Polski (Polish)	Niniejsza broszura zawiera informacje na temat ptasiej grypy. Jeżeli potrzebujesz informacji w innym formacie lub języku, prosimy o kontakt z HSENI lub pobranie informacji ze strony internetowej HSENI <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Português (Portuguese)	Este livrete é sobre a febre das aves. Se necessitar da informação num formato ou língua diferentes, contacte por favor, o HSENI ou, alternativamente, faça o seu download através do website do HSENI - <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Romana (Romanian)	Acest indrumar contine informatii despre gripa aviara. Daca aveti nevoie de aceste informatii intr-un alt format sau alta limba, va rugam sa contactati HSENI, sau puteti sa-l descarcati de pe website-ul <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Slovensky (Slovak)	Tento leták je o vtácej chřipke. Ak potrebujete informácie v inom formáte alebo jazyku, prosím kontaktujte HSENI alebo alternatívne si stiahnite leták zo stránky HSENI na <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>
Tetum (Tetum)	Iha suratan ida kona ba gripe manu nia. Se hakarak informasaun ida ne'e ba formato oh lian sira seluk, halo favor telefone ba HSENI oh selai download husi website <a href="http://www.hseni.gov.uk">www.hseni.gov.uk</a>

## Introduction

This guidance targets groups of workers in the poultry industry as defined by the Health Protection Agency who may be potentially at risk from avian influenza (Appendix A).

Since 2003 large outbreaks of the H5N1 strain of avian influenza have occurred in poultry in South East Asia. Countries such as China, Thailand, Cambodia, Indonesia and Vietnam have been particularly affected. More recently some wild birds and domestic flocks have died from H5N1 infection in Europe. An up-to-date list of countries can be found at <http://www.oie.int>



## What is bird flu?

Bird flu is an infectious disease of birds caused by several strains of the influenza virus some of which cause more serious disease in poultry. The disease tends to be more severe in chickens and turkeys than in waterfowl. Sometimes large outbreaks of highly infectious disease occur in poultry leading to large numbers of bird deaths.

## How does it affect poultry?

The symptoms and severity of disease depend upon the strain of virus and the type of bird infected. Birds infected with bird flu may die suddenly or show a range of clinical signs including respiratory signs, swollen heads, dullness, a drop in egg production, and a loss of appetite. Some birds, especially waterfowl, can be infected without showing any signs of disease. Infected birds shed flu virus in their saliva, nasal fluids and droppings, spreading it to their feathers.

## Can bird flu viruses cause infections in people?

Up to now, human infection with bird flu has been very rare. Even after contact with infected birds, dead or alive, the risk of catching bird flu is extremely low. Symptoms and the severity of illness depend on the strain of bird flu. Several strains cause mild disease, usually conjunctivitis, however, people who become infected with the H5N1 strain may become very ill and of all the laboratory confirmed cases of human disease approximately half have died. (see the World Health Organisation (WHO) website for the latest information). General information can be found on:  
<http://www.dhsspsni.gov.uk/avianflu-faqs.pdf>

## How does the disease spread to people from birds?

The disease has mainly been associated with close contact with live infected birds or their droppings, or following slaughtering, plucking, butchering or preparing diseased poultry for eating. It appears that the infection spreads directly from infected birds, their feathers or faeces to people. Indirect spread through contaminated hands or surfaces can also occur.

## Can a person who develops bird flu infect another person?

There have been a limited number of well documented cases in which there is evidence to suggest person-to-person transmission of H5N1 but to date there is no evidence that this specific avian influenza virus has adapted to spread easily in humans.

[http://www.hpa.org.uk/infections/topics\\_az/influenza/avian/avianflufaq.htm](http://www.hpa.org.uk/infections/topics_az/influenza/avian/avianflufaq.htm)

[http://www.who.int/csr/disease/avian\\_influenza/avian\\_faqs/en/index.html#isit](http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/index.html#isit)

## What are the symptoms?

People infected with bird flu caused by the H5N1 strain get fever (38°C or higher) followed by flu-like symptoms, including cough, runny nose, sore throat, muscle aches and shortness of breath. Diarrhoea may be present early on in the illness, but may also start up to one week before the flu-like symptoms. People can also have stomach pain, vomiting or headache. Symptoms get progressively worse so that after a few days hospital admission is required.

## Why is it so important to prevent H5N1 infections in people?

It is still extremely rare for people to catch H5N1. However, when somebody does catch it, they may become very ill or die. Flu viruses change all the time so the virus itself could change so that it could spread more easily from person-to-person. It could also change if a person catches bird flu when they are already infected with the ordinary flu. If this happened the two viruses could mix and change to a “new” one that spreads easily from person-to-person. If this happens it could start a world-wide flu outbreak, known as pandemic flu.

## Is there a human vaccine against bird flu?

No, at present there is no vaccine to prevent bird flu in people.

## Can regular vaccination against ordinary flu prevent bird flu in humans?

No. The ordinary flu vaccine does not protect against bird flu. However, it will be recommended for those who have to deal with an outbreak of bird flu in poultry. This is to stop ordinary flu virus combining with bird flu virus to produce a ‘new’ virus which can spread from human to human and cause serious disease.

## How does the virus spread from birds to people?

In South East Asia, the plucking or preparation of diseased birds, contact with ducks and possibly eating undercooked poultry from infected birds have all been implicated.

## There are three possible routes of infection:

- Breathing in infectious droplets or dust containing infectious material
- Eating or swallowing infectious material
- Contact between infectious material and the lining of the eyes, nose or mouth



## How can the health of workers be protected?

### Step 1: Healthy birds is the first priority

Protecting the birds:

Stick to sound biosecurity measures to protect the birds from infection. A list of approved disinfectants is available on the DARD website at -

<http://www.dardni.gov.uk/index/animal-health/animal-disease-control-and-prevention/avian-influenza/dard-approved-disinfectants.htm>

- Keep a supply of all necessary disinfectants and cleaning equipment;
- Provide and use foot dips at all times (replace foot dip disinfectant as required);
- Birds should only be bought from reputable and safe sources;
- Only essential workers should have access to the birds;
- Maintenance contractors should adhere strictly to biosecurity measures and should take only essential tools or equipment on site;
- All tools and equipment brought to the site should be thoroughly disinfected;
- Never use river, lake or shallow well water for cleaning purposes or for drinking water for the birds.

Full biosecurity information is available on the DARDNI website at -

<http://www.dardni.gov.uk/index/animal-health/animal-disease-control-and-prevention/avian-influenza/preparing-for-avian-influenza/welfare-and-biosecurity.htm>

### Step 2: Be vigilant

- Pay attention to the health of the stock and contact your supervisor/employer/vet where you have concerns.

## Step 3: Safeguard health

### Working Environment:

- Certain lung diseases and infections are potential risks from work in poultry houses;
- Avoid unnecessary entry to poultry houses;
- Wherever practicable avoid work activities which create dusty environments in poultry houses;
- Protect your health by reducing contact with poultry, their droppings, feathers etc. and avoid contact with surfaces which are likely to be contaminated;
- Wear the appropriate personal protective clothing and respiratory protective equipment on entering poultry houses and when working with live birds, their feathers, manure or by-products (see below).

### People:

- Wash hands (and arms if necessary) before eating, drinking, smoking, using the telephone, taking medication, applying make-up and inserting contact lenses (see Appendix C);
- Cover all new and existing cuts and grazes with waterproof dressings before starting work;
- Don't touch your face or eyes with your hands or gloves;
- Wash your hands after touching surfaces which could be contaminated;
- Wear the correct personal protective equipment (PPE). This is:

- > Disposable or polycotton coveralls, (with, as appropriate, disposal or thorough cleaning after use);
- > Disposable nitrile or vinyl gloves or heavy duty rubber non-latex gloves that can be easily disinfected;
- > Wellingtons/overshoes;
- > PP3- type respiratory protection should be worn where there is a risk of exposure to live poultry, their feathers, droppings, or by-products or to dust containing such material;
- > EN 166 Class 3, 4, 5 eye protection should be worn in addition to the respiratory protective equipment where there is a risk from body fluids / blood.

- Make sure that your PPE is put on and taken off in the correct order - see Appendix B;
- Poultry house workers should remember to protect themselves, as should contractors, visitors and family members who enter the poultry house;
- Plan the working day to allow for disinfection before the main breaks;
- So far as is practicable take breaks away from the work area having first removed PPE;
- Good practice dictates that PPE should not be worn outside the work area;
- Leave PPE in a covered container in a clean area within the biosecure area;
- Never eat, drink or smoke in the poultry house;
- Bring this information booklet to the attention of anyone who has access to poultry.





### What will happen if the poultry in your workplace become infected with avian influenza?

In the event of an outbreak of avian influenza in your poultry, officials from the Department of Agriculture and Rural Development will implement stringent controls on site. The website of the Department of Health Social Services and Public Safety contains useful information including health and safety guidance for use in the event of an outbreak: <http://www.dhsspsni.gov.uk/index/phealth/avianflu>

### What are my legal duties as an employer or an employee?

Employers have duties under The Health and Safety at Work Order and the Control of Substances Hazardous to Health Regulations (COSHH) to control risks to health. Further guidance on managing the risks from biological agents in the workplace can be found at the following website: <http://www.hse.gov.uk/biosafety/information.htm>

Employees have a legal duty while at work to take reasonable care for the health and safety of themselves and of others who may be affected by their work activities.





The following groupings are those who may be potentially at risk from avian influenza.

- 1** Workers employed at or regularly visiting registered poultry units who fall into one, or more, of the following categories:
  - a routinely access enclosed poultry rearing or egg production areas;
  - b perform initial sorting of poultry eggs if the sorting area is an integral part of the production unit;
  - c catch or cull poultry within enclosed poultry rearing or egg production areas;
  - d perform final clean down of poultry sheds following depopulation of a poultry house.
- 2** Workers who collect and remove poultry manure or litter from within enclosed poultry rearing or egg production areas of registered poultry units.
- 3** Workers in poultry processing units that:
  - a catch and handle live birds;
  - b kill and eviscerate birds;
  - c cleanse and disinfect areas and equipment contaminated by poultry faeces. <sup>2</sup>

The following workers are not considered to be at higher than normal risk of exposure to avian influenza viruses:

- Workers in and around farms that have registered poultry units, but do not enter the enclosed poultry management areas or egg sorting facilities;
- Workers delivering materials to poultry units;
- Workers collecting or delivering eggs or poultry (live or dead) from poultry premises (unless also undertaking duties included in 1(c));
- Workers in poultry processing units handling poultry carcasses but not involved in killing or eviscerating poultry (unless also undertaking duties included in (3) above).

<sup>1</sup> Derived from the Health Protection Agency.

<sup>2</sup> These include workers/maintenance contractors who may have to clear or carry out maintenance work on broken down lines and transport workers who have to clean vehicles contaminated by poultry faeces.



### Essential Equipment

- 1 Brush / boot scraper for cleaning debris from boots
- 2 Brush for use with foot dip
- 3 Disinfectant
- 4 Suitable container for 'dipping' gloved hands during removal of PPE
- 5 Footbath and brush for disinfecting boots
- 6 Disposable wipes
- 7 Plastic bag for disposable PPE / soiled wipes
- 8 Cable tie for sealing plastic bag



### Suitable PPE

- 1 Coverall
- 2 Respirator
- 3 Goggles
- 4 Gloves
- 5 Wellington Boots



## Putting on PPE

- 1 Put on coverall
- 2 Put on boots ensure legs of coverall are outside boots
- 3 Put on face mask
- 4 Put on goggles
- 5 Put up hood of coverall
- 6 Put on gloves, ensuring sleeves of coverall are over the cuffs of the gloves
- 7 Full PPE Kit

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## Removing PPE



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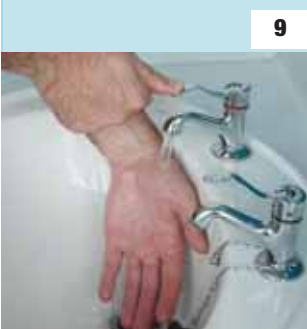
- 1 Remove rough debris from boots using brush / boot scraper
- 2 Dip gloves in disinfectant solution
- 3 Wash / scrub boots and soles in disinfectant solution
- 4 Dip gloves in disinfectant solution
- 5 Remove hood
- 6 Wipe outside of goggles and any obvious soiling to the protective equipment with a disposable wipe
- 7 Place wipe in plastic bag
- 8 Dip gloves in disinfectant solution
- 9 Remove coveralls by 'peeling' or rolling material gently from hood to legs (invert sleeves and legs of coverall during this process) and step out of boots at the same time
- 10 Slip feet into outdoor shoes
- 11 Place coveralls in plastic bag
- 12 Dip gloves in disinfectant solution
- 13 Remove goggles holding the face-piece
- 14 Wash goggles in disinfectant
- 15 Dip gloves in disinfectant solution
- 16 Remove respirator by leaning forward and shedding mask towards ground
- 17 Place mask in plastic bag
- 18 Remove gloves by rolling and inverting from cuff seal
- 19 Place gloves in plastic bag
- 20 Seal plastic bag and dispose of as domestic waste
- 21 Wash hands

Note - If re-usable polycotton overalls are used, they should be laundered separately with a minimum of handling



**When washing hands:**

- Use soap and warm running water;
- Wash all surfaces thoroughly, including wrists, palms, backs of hands, between fingers and under fingernails;
- Rub hands together for up to 20 seconds;
- Rinse away all soap;
- Dry hands with paper towel, clean fabric towel or warm air dryer.



## Sources of Information

Health and Safety Executive for Northern Ireland (HSENI), 83 Ladas Drive, Belfast BT6 9FR. Telephone: (028) 9024 3249. Helpline: 0800 0320 121 or  
Employment Medical Advisory Service (EMAS), Avenue House,  
Rosemary Street, Belfast BT1 1QE. Telephone: (028) 9040 8004.  
E-mail: [emasmail@detini.gov.uk](mailto:emasmail@detini.gov.uk)

Health and Safety Executive (HSE), Rose Court, 2 Southwark Bridge, London, SE1 9HS Telephone: (020) 7556 2100  
<http://www.hse.gov.uk/biosafety/diseases/avianflu.htm>

The Department of Health, Social Services and Public Safety,  
Castle Buildings, Stormont, Belfast BT4 3SJ.  
Telephone: (028) 9052 0500  
<http://www.dhsspsni.gov.uk/avianflu>

Veterinary Service, Department of Agriculture and Rural Development for Northern Ireland (DARDNI), Dundonald House, Upper Newtownards Road, Belfast BT4 3SB  
Telephone: (028) 9052 4580  
<http://www.dardni.gov.uk/index/animal-health/animal-disease-control-and-prevention/avian-influenza.htm>

Health Protection Agency, Centre for Infections, 61 Colindale Avenue, London NW9 5EQ Telephone: (020) 8200 4400  
[http://www.hpa.org.uk/infections/topics\\_az/influenza/avian/default.htm](http://www.hpa.org.uk/infections/topics_az/influenza/avian/default.htm)

## Useful Websites

[www.hseni.gov.uk](http://www.hseni.gov.uk)

[www.hse.gov.uk](http://www.hse.gov.uk)

[www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)

[www.dardni.gov.uk](http://www.dardni.gov.uk)

[www.hpa.org.uk](http://www.hpa.org.uk)

[www.who.int](http://www.who.int)



**This guidance is endorsed by the following organisations and government bodies:**

The Health and Safety Executive for Northern Ireland  
The Department of Agriculture and Rural Development  
The Department of Health, Social Services and Public Safety  
The Communicable Disease Surveillance Centre (NI)  
The Ulster Farmers' Union  
The Poultry Association of Northern Ireland  
The Northern Ireland Poultry Federation  
The Northern Ireland Rendering Association

It has been the subject of consultation with those mentioned above and also with South Tyrone Empowerment Programme. The Northern Ireland Grain Trade Association has assisted with the distribution of the booklet.

**Further advice can be obtained from:**

Health and Safety Executive for Northern Ireland  
83 Ladas Drive  
Belfast  
BT6 9FR

Tel: (028) 9024 3249  
Fax: (028) 9023 5383  
Helpline: 0800 0320 121  
Textphone: (028) 9054 6896  
Website: [www.hseni.gov.uk](http://www.hseni.gov.uk)  
E-mail: [hseni@detini.gov.uk](mailto:hseni@detini.gov.uk)

A large type version of this text is available on request from HSENI