

Avian Influenza Health and Safety Guidance for Workplaces

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Who are these guidelines for?

These guidelines are for workplace managers and people who work with birds and other animals at risk of avian influenza in Aotearoa New Zealand. They provide advice for at-risk occupational groups on how to protect their health against avian influenza. It is intended to complement other available guidance and does not alter employers' or workers' obligations to follow appropriate Health and Safety practices.

At-risk occupational groups include those in contact with potentially infected birds and other animals, their products and contaminated materials, or their environments and habitats.

There are different strains of avian influenza. While this guidance is focused primarily on assisting organisations (including government agencies and industry) to plan for and help protect their staff from the High Pathogenicity Avian Influenza (HPAI) H5N1 strain, it is also applicable to other strains of avian influenza that have the potential to infect humans.

Separate health and safety guidance for the general public is available [here](#).

What is avian influenza?

Avian influenza (sometimes called bird flu) is a viral disease that mainly affects birds (including wild birds and domestic poultry). However, it can also infect a variety of land-based and marine mammals (including dairy cows and seals).

Avian influenza strains are categorised by the severity of disease they cause in poultry. High pathogenicity avian influenza (HPAI) strains cause severe disease in poultry, and low pathogenicity avian influenza (LPAI) cause no, or mild disease in poultry.

While LPAI is already present in wild birds in New Zealand, and some strains of LPAI have in rare cases been known to cause disease in humans, the overall risk of infection from both LPAI and HPAI in humans is considered low. Globally, human infection with avian influenza has been rare and has generally only occurred in people who have had a lot of contact with infected birds or other infected animals without personal protective equipment (PPE). There is currently no evidence that avian influenza can spread easily from human to human, and New Zealand has never had a human case of avian influenza.

More information is available [here](#).

What are the symptoms of avian influenza?

Avian influenza symptoms in humans generally appear between two and 10 days after exposure to the virus, and can include:

- A fever (>38 C) or feeling hot
- Upper respiratory tract infection symptoms (sore throat, cough, cold, congested nose)
- Flu like symptoms (including aching muscles, sore throat, cough, cold, lethargy)
- Conjunctivitis
- Shortness of breath

- Diarrhoea
- Stomach pain
- Chest pain.

How does avian influenza spread to humans?

The spread of avian influenza from animals to humans is rare, but can occur if people have close contact with or are exposed to:

- An infected animal (e.g. through handling, culling, slaughtering, or processing)
- Infected animal materials (e.g. faeces, droppings, mucus, raw milk from cows)
- An environment contaminated with infected animal materials.

People are exposed when infectious droplets or contaminated dust in the air are inhaled or contact a person's eyes, nose, or mouth. Exposure can also occur when people touch contaminated surfaces, objects, or materials and then touch their mouth, nose, or eyes.

People cannot get avian influenza by consuming properly cooked meat or eggs.

Humans with avian influenza do not easily spread the virus to other humans. When this occurred, it was due to close and prolonged contact with a sick person.

Who is at risk?

The following occupational groups may be exposed:

- Farmers, farm workers or processors of poultry (chicken and eggs) and dairy cattle (should they become infected)
- Workers involved in slaughter or disposal of infected animals, or in disinfection of contaminated sites
- Outbreak responders, including government personnel, animal vaccinators, and other workers
- Veterinary staff
- Staff at zoos, animal sanctuaries/recovery centres, breeding centres and pet shops
- Commercial fishers and conservation workers who may have contact with wild birds/marine mammals
- Staff and visitors at animal events, e.g. bird fairs, animal shows.
- Animal laboratory staff
- Healthcare workers, including clinicians, public health responders, medical laboratory workers, and staff handling clinical waste
- Staff, volunteers, researchers, and associated animal welfare groups working with wildlife; including those handling and manipulating wildlife for conservation purposes
- Road or roadside workers who remove dead birds from the road or roadside
- Workers exposed to unpasteurised milk and milk products (if dairy cows become infected).

General recommendations for employers

All businesses and self-employed people have a primary duty of care and must comply with the Health and Safety at Work Act 2015¹(HSWA).

To be prepared, employers of the above occupational groups:

- Must identify if there is a risk of exposure to avian influenza in the workplace, and if so, must take reasonably practicable steps to protect workers from becoming infected
- Should offer eligible workers in high-risk settings [vaccination](#) against human (seasonal) influenza every year
- Must have methods in place to protect workers, which might include isolation of the risk from the worker, or isolation of the worker from the risk, such as:
 - a hard barrier or booth
 - engineering controls such as machinery with enclosed and ventilated cabs,
 - safe work practices
 - administrative controls such as an appropriate biohazardous waste management plan and personal protection.
- When working with other businesses or workers sharing the same workplace or worksite, all should work together to coordinate hazards, risk mitigations and work activities under HSWA. This is known as [overlapping duties](#)
- Should ensure they have an incident reporting system and investigation process for workers experiencing avian influenza-like symptoms
- Should plan for the recommendations listed below in the 'Once avian influenza is detected in Aotearoa New Zealand'.

If cases of HPAI* are detected in Aotearoa New Zealand, employers should:

- Provide appropriate, well fitted PPE and PPE training (including annual refresher training) to be used when needed (appendix 1)
- Provide information on the use of PPE in the workplace in print or audiovisual form (appendix 2)
- Provide training around the risks, how exposure can occur, how workers protect themselves and others, and what symptoms might occur
- Provide appropriate signage reminding workers of PPE and other safe work procedures
- Provide separated designated clean/dirty areas, ideally one for putting on, and one for removing PPE
- Provide facilities (and ensure they are kept clean) for:
 - handwashing
 - disposal of contaminated PPE
 - laundering of contaminated clothing and PPE
 - laundering of potentially contaminated clothing worn under PPE
 - disinfection of equipment if required on site.
- Undertake health monitoring for those working in a higher risk exposure workplace
- Support workers to isolate at home and seek medical advice immediately should they become unwell with influenza-like symptoms

- Support workers with influenza-like symptoms who work with live animals to not return to work until their symptoms have resolved (even if they do not have avian influenza). This is to further reduce the risk of a pandemic strain of influenza developing if a worker is simultaneously infected with the human seasonal influenza and then a strain of avian influenza
- Not expose workers who are pregnant (or within 6 weeks postpartum) or immunosuppressed to animals or environments where avian influenza is known or suspected.

*In the event that LPAI is detected locally, discuss PPE requirements with your [local public health service](#). The above precautions may be required since some strains of LPAI can cause disease in humans.

General precautions for workers

- Avoid contact with birds, other animals, their secretions, droppings, or faeces where avian influenza is suspected
- If you must work in or enter any buildings or sites where these may be present, or are handling potentially infected animals or animal materials, you should:
 - wear appropriate PPE for the risk level (appendix 1), and continue to wear any other protective equipment you normally use during your duties, such as hearing protection
 - wash hands thoroughly and frequently with soap and warm running water - lather with soap for at least 15-20 seconds, then rinse hands under running water and dry with a clean towel
 - ensure hands are washed immediately after any contact with animals or contaminated surfaces and after removing gloves
 - if soap and clean water are not available for handwashing, use an alcohol-based hand gel with at least 60% ethanol concentration
 - avoid eating, drinking, or smoking while handling birds or in areas housing birds
 - shower and wash hair after handling contaminated materials and before putting on street clothes
 - cover open wounds with a water-resistant dressing or bandaging.
- Anyone with influenza-like symptoms should not return to work until their symptoms have resolved. This is to further reduce the risk of a pandemic strain of influenza developing if simultaneously infected with the human seasonal influenza and a strain of avian influenza.

PPE for workers

Appropriate PPE will vary according to the level of risk and requires a site-specific risk assessment. Refer to appendix 1 for guidance about recommended PPE at different risk levels. Additional hazards may be present in the environment (e.g. chemicals involved in decontamination). A site-specific approach should be taken, and additional PPE may be needed if additional hazards are identified.

If you have questions on the type of PPE to use or how to fit it properly, ask your supervisor.

Recommended PPE may include:

Gloves	Nitrile gloves must be worn when handling animals or objects (such as tools, equipment, or bedding) that could be infected with or exposed to avian influenza. Double gloving is recommended when handling tasks involve higher risks or invasive procedures where gloves might tear.
Protective eyewear (unvented safety glasses)	Goggles (tight-fitting and completely covering the eyes, eye sockets, and the facial area immediately surrounding the eyes) should be worn during activities with potential exposure to aerosolized virus particles or fluid splashes.
Designated footwear (closed and waterproof)	Use designated footwear whenever possible to prevent the transfer of the virus between sites. If not feasible, wear footwear that can be thoroughly cleaned and disinfected.
Reusable and disposable coveralls	<p>Category III Type 4 or 5/6 protective clothing (coveralls) provide full coverage of underclothing and skin, helping prevent contamination plus impermeable disposable apron that can be discarded.</p> <p>Protective fluid-resistant or chemical-impermeable clothing (e.g., long-sleeved coveralls with a waterproof apron that can be cleaned and disinfected or disposed of is preferred).</p> <p>Reusable coveralls should be cleaned and disinfected after each use.</p> <p>Disposable coveralls are preferred as they can be discarded on-site or off-site, eliminating the need for cleaning and disinfection (see below for details on disposal). For use at chicken farms, the use of overalls the same colour as business as usual (BAU) overalls is advised, and larger size than usual will prevent material from ripping.</p>
Head or hair cover	Head cover of CE type 5 & 6 that offers protection against dusts, splashes, and liquid sprays if hooded coverall not used.
Respiratory protection	<p>Respiratory protection must have P2 or N95 filters to provide protection from the virus. This can include disposable, half face, full face respirator, or loose fitting headtop with a powered air unit or airline. All negative filtering respirators must be fit tested before use, such as disposable and reusable respirators.</p> <p>Powered air units or supplied air respirators provide the highest level of protection and should be considered for the highest risk activities in enclosed environments with high viral loads, such as depopulation of poultry sheds.</p>

Putting on PPE

Wash hands with soap and water and then put PPE on in a clean environment avoiding contamination. PPE should be put on in the following order:

1. Coveralls
2. Waterproof apron, if needed
3. Respirator
4. Safety goggles or face shield
5. Head cover or hair cover (if hooded coverall not used)
6. Gloves (consider using double gloves for reducing re-contamination on removal of PPE)
7. Boots or boot covers.

While wearing PPE

- Use separate designated clean/dirty areas, ideally one for putting on PPE and one for taking off the PPE
- Do not eat, drink, smoke, vape, chew gum, or use the toilet
- Take regular breaks
- Avoid touching your eyes, mouth, and nose
- Remove gloves after use, change gloves and wash hands if gloves are torn, punctured or damaged. Consider wearing two pairs of gloves if they are repeatedly damaged by the nature of the work, or for reducing risk of re-contamination on removal of PPE.

Removing PPE

Remove PPE in the following order, ensuring you are touching the least contaminated part of each piece of PPE:

1. Apron, if worn
2. Clean and disinfect boots, then remove
3. Gloves (turned inside out) and coveralls
4. Headcover or hair cover (if hooded coverall not being used)
5. Goggles or face shield (if reusable, clean and disinfect as it is removed if possible)
6. Respirator
7. Perform hand hygiene (as below).

After removing PPE

- Immediately wash hands, arms, and face with warm soapy water, or if not available an alcohol-based hand rub
- If possible, shower at the end of the work shift and put on clean uncontaminated clothing. If there are no shower facilities on site, clean up as much as possible, put on uncontaminated clothing, leave straight from work to a shower, and put on a different set of clean clothing immediately afterward
- Leave all contaminated clothing and equipment at work
- Never take contaminated equipment or wear contaminated clothing outside the work area.

Safe disposal of non-reusable PPE

- Recommended safe disposal of PPE will be dependent on risk level, as it may be considered a controlled waste (if PPE L3 being used – appendix 1)
- Specific procedures regarding PPE disinfection and disposal should be provided by the PPE user`s workplace
- Note - many N95 and P2 filters are not reusable as they have a porous exterior surface).

To clean and disinfect reusable PPE

- All reusable PPE (e.g., rubber boots, goggles, face shield) should ideally be cleaned as it is removed. If not practical, it should be set aside and placed in a separate sealed bag until ready for cleaning and disinfected. This should be done after every use
- If cleaning heavily soiled PPE or footwear, suitable PPE should also be worn to protect against the contaminated items
- Clean reusable PPE with detergent until visible dirt is removed
- Select a disinfectant that has [label claims against influenza viruses](#) (e.g. bleach)
- Follow manufacturer/label directions for contact times and safe use of disinfectants
- Disinfect reusable PPE according to the disinfectant and PPE manufacturer`s instructions.

Washing soiled laundry:

- Wash laundry onsite with standard laundry detergent, and completely machine-dry at the highest temperature suitable for the material
- Wear gloves and protective outerwear (e.g., coverall) when handling soiled laundry.
- Use separate storage and transport bins for clean and dirty laundry
- Ensure storage and transport bins are cleaned and disinfected after each use
- Any clothing worn under PPE that is soiled or contaminated should not be taken off site
- If there is no laundry on site, clothing worn under PPE could be laundered by a commercial laundry or at home (if not soiled or contaminated) and should be transported in a plastic bag, kept separate from items, washed separately, and then thoroughly machine-dried at the highest temperature suitable for the material. The bag should then be disposed of.

Contaminated environments:

Avian influenza can persist for extended periods in water and faeces. If avian influenza has been detected on a poultry farm or other animal facility, the Ministry for Primary Industries (MPI) will undertake a risk assessment. Quarantine of the affected area may be required until the risk is deemed to be low. If the affected area must be accessed during this period, relevant infection prevention and control measures, including appropriate PPE, should be implemented.

What to do if a worker is exposed to avian influenza

- Your local public health service will contact the worker or workplace to undertake a risk assessment and provide further information. The strain of avian influenza may affect what public health measures are recommended
- If level 3 PPE (appendix 1) was used with no breaches throughout their exposure, self-monitoring for symptoms of avian influenza will be advised. This should be done every day when a person is working with infected or potentially infected animals or contaminated materials, and until 10 days after the last day of exposure
- If a lower level of PPE, or no PPE was used, or a there was a breach during their exposure, the public health service may advise taking a course of antiviral medicine (Tamiflu) to reduce the risk or severity of avian influenza symptoms. The public health team will discuss this with the exposed worker and arrange for it to be dispensed
- If a person develops symptoms of avian influenza in the 14 days after their last exposure, they should immediately isolate themselves as much as possible, inform their supervisor/employer and occupational health and safety officials (if available), and get instructions for seeking medical assessment.

Antiviral medication

Public health services will provide specific advice with regards to the use of antiviral medication for avian influenza. They can be used for:

- Treatment of symptomatic human cases of avian influenza. To be effective, treatment should ideally be given within 48 hours of onset of symptoms and may reduce the severity and length of infection
- Post exposure prophylaxis. This is to prevent disease developing after someone is exposed to avian influenza, but before they develop symptoms.

Vaccination

- Vaccination against avian influenza is not available in New Zealand. However, the seasonal human influenza (flu) vaccination is recommended for some people who work with animals, in healthcare, childcare or emergency and essential services where they may be at risk of exposure to avian influenza
- Although the seasonal flu vaccine does not protect specifically against avian influenza, if someone does become infected with both avian and human influenza, it will help prevent the risk of the two viruses combining to form a new and more highly infectious virus
- If you work with livestock or poultry or with animals in a vet or zoo, it is recommended you see your GP, doctor, hauora/healthcare provider, or local pharmacy to get a flu vaccination. For more information on the flu vaccine visit info.health.nz/flu.

Appendix 1: HPAI risk matrix and PPE guide

The purpose of this matrix is to assist organisations (including Government agencies and industry) to assess their risk and prepare guidance to help protect their staff from High Pathogenicity Avian Influenza (HPAI).

In the event that low pathogenicity avian influenza (LPAI) is detected locally, discuss PPE requirements with your [local public health service](#). PPE may be required since some LPAI strains can cause disease in humans.

This guide is not intended to provide detailed PPE or disinfection instructions, and it does not supersede employers' responsibilities to carry out a task specific risk assessment to protect their staff. Initial and refresher training tailored to each activity level is recommended.

This guidance is not intended to be used by the general public. Separate health and safety guidance for the general public is available [here](#).

How to use this guide:

1. Check the current context level (table 1).
2. Check the activity level (table 2).
3. Refer to table 3 to find the PPE level required for the context and activity levels identified in 1 and 2.
4. Table 4 lists the required PPE for each PPE level.

Table 5 provides examples of PPE requirements for different contexts and activities.

Table 1. Tiered context-based HPAI occupational exposure risk

Context Level 0	Context Level 1
No HPAI detected in NZ/NZ territories*.	HPAI has been detected in NZ/NZ *territories

*NZ territory includes outlying islands or island groups administered by New Zealand outside of the main archipelago, excluding the Ross Dependency.

Table 2. Tiered activity based occupational HPAI exposure risk

	Activity	Examples For occupations where specific guidance already in place, please refer to it.
Activity Level 0	No contact with birds or associated ^fomites or animal materials (e.g. droppings, eggs).	<ul style="list-style-type: none"> - Observational research work - Farmers (non-poultry)
Activity Level 1	Contact with apparently healthy birds (no disease/mortality) or associated ^fomites or animal materials in area**where HPAI is not detected and MPI assesses likelihood is low.	<ul style="list-style-type: none"> - Pigeon fanciers, pet owners, backyard poultry owners, etc - Veterinary staff - Zoo staff, rescue centre staff - Commercial fishers and conservation/local government workers who may have contact with wild birds/marine mammals - Egg processors - Vaccinators - Meat processors - Poultry workers - Surveillance sample collectors - Workers in remote locations, such as subantarctic islands
Activity Level 2	Contact with sick or dead birds, or associated ^fomites or animal materials in area** where HPAI is not detected and MPI assesses likelihood is low.	<ul style="list-style-type: none"> - Veterinary staff - Commercial fishers and conservation/local government workers who may have contact with wild birds/marine mammals - Surveillance sample collectors - Zoo staff, rescue centre staff - Workers in remote locations, such as subantarctic islands - Poultry farm workers - Road or roadside workers who remove dead birds from the road or roadside - Laboratory staff
Activity Level 3	Contact with healthy birds or associated ^fomites or animal materials in area**where HPAI is not yet	<ul style="list-style-type: none"> - Workers involved in the slaughter or disposal of suspected infected animals, or sampling of suspected or contaminated properties - Workers in remote locations, such as sub-Antarctic islands

	Activity	Examples For occupations where specific guidance already in place, please refer to it.
	detected/confirmed but MPI assesses likelihood is high.	<ul style="list-style-type: none"> - Conservation/local government workers who may have contact with wild birds/marine mammals - Zoo staff, rescue centre staff - Veterinary staff - Road or roadside workers who remove dead birds from the road or roadside - Laboratory staff
Activity Level 4	Contact with sick or dead birds or associated ^fomites or animal materials in area**where HPAI is not yet detected/confirmed but MPI assesses likelihood is high.	<ul style="list-style-type: none"> - Workers involved in the slaughter or disposal of suspected infected animals, or sampling of suspected contaminated properties - Workers in remote locations, such as sub-Antarctic islands - Conservation/local government workers who may have contact with wild birds/marine mammals - Zoo staff, rescue centre staff - Veterinary staff - Road or roadside workers who remove dead birds from the road or roadside - Laboratory staff
Activity Level 5	Contact with healthy, sick or dead birds/mammals and associated ^fomites, animal materials in area**which is confirmed via PCR* testing to have an HPAI outbreak.	<ul style="list-style-type: none"> - Workers involved in the slaughter or disposal of infected animals, or in disinfection of contaminated sites, sampling of infected properties - Workers in remote locations, such as sub-Antarctic islands - Conservation/local government workers who may have contact with wild birds/marine mammals - Zoo staff, rescue centre staff - Veterinary staff - Road or roadside workers who remove dead birds from the road or roadside - Laboratory staff - Surveillance staff sampling birds from unaffected sheds on diagnosed infected places

#Workers in remote locations, such as subantarctic islands under context 0 should consider using PPE recommended under context 1.

^Fomites are surfaces that can become contaminated by infectious pathogens. By touching fomites, you can pick up those pathogens.

*PCR testing – polymerase chain reaction test used and confirmatory laboratory and diagnostic test to rule in or out HPAI.

** area as defined by MPI at start of response.

Table 3. Matrix of tiered context-based and occupational activity-based HPAI exposure risk determining personal protective equipment (PPE) levels

	Context L0	Context L1
Activity L0	PPE L0	PPE L0
Activity L1	PPE L0	PPE L1
Activity L2	PPE L1	PPE L1
Activity L3	NA	PPE L2
Activity L4	NA	PPE L3
Activity L5	NA	PPE L3

Table 4. Tiered occupational personal protective equipment (PPE)

	PPE and disinfection procedures
PPE Level 0	BAU high personal hygiene should be maintained in the field e.g. hands, arms, and face should be washed with water and detergent, rinsed, and hand sanitiser applied to hands, after fieldwork.
PPE Level 1	Previous level, plus: BAU biosecurity. Gloves (nitrile) should be worn. Footwear (closed and waterproof) and clothes should be changed and, at the end of fieldwork, cleaned and disinfected before re-using.
PPE Level 2	Previous level, plus: Enhanced levels of biosecurity, disposable respirator P2 or N95 (fit- tested), protective eyewear, and protective clothing (fluid-resistant coveralls can be used).
PPE Level 3	Previous level, plus: Two layers of gloves (nitrile) and full-body Category III Type 4, or 5/6 protective splashproof clothing (coveralls) plus impermeable apron that can be discarded. Hair should be covered by the overall's hood. Respirator with P2 or N95 filters (fit-tested) or disposable, half face, full face respirator, or loose fitting headtop with a powered air unit or airline can be used. There should be no gap between gloves and sleeves (use tape if necessary).

Table 5. Examples of context levels can be matched with activity levels and PPE matrix.

Example / activity / scenario	Matrix results	PPE
<p>You are a researcher doing observational work in a bird colony.</p> <p>HPAI is not detected in the country.</p>	<p>Context Level = 0 Activity Level = 0 PPE Level = 0</p>	<p><u>PPE Level 0</u> BAU high personal hygiene should be maintained in the field e.g. hands, arms, and face should be washed with water and detergent, rinsed, and hand sanitiser applied to hands, after fieldwork.</p>
<p>Commercial fishers, conservation or local government workers who may have contact with wild birds/marine mammals.</p> <p>HPAI has been detected in the country, but not in your area.</p>	<p>Context Level = 1 Activity Level = 1 PPE Level = 1</p>	<p><u>PPE Level 1</u> BAU biosecurity. Gloves (nitrile) should be worn. Footwear (closed and waterproof) and clothes should be changed and, at the end of fieldwork, cleaned and disinfected before re-using.</p>
<p>You are working at a bird rescue and are coming into contact with sick birds.</p> <p>HPAI has been detected in the country, but not in your area.</p>	<p>Context Level = 1 Activity Level = 2 PPE Level = 1</p>	<p><u>PPE Level 1</u> BAU biosecurity. Gloves (nitrile) should be worn. Footwear (closed and waterproof) and clothes should be changed and, at the end of fieldwork, cleaned and disinfected before re-using.</p>
<p>You work at a poultry farm. There are no sick birds.</p> <p>HPAI has been detected in the country, including in your area*, but not on your farm.</p>	<p>Context Level = 1 Activity Level = 3 PPE Level = 2</p>	<p><u>PPE Level 2</u> Enhanced levels of biosecurity, disposable respirator P2 or N95, protective eyewear, and protective clothing (fluid-resistant coveralls can be used).</p>
<p>You work at a poultry farm. There are sick birds and likelihood of HPAI is high.</p> <p>HPAI has been detected in the country including in your area* but not on your farm.</p>	<p>Context level = 1 Activity level = 4 PPE level = 3</p>	<p><u>PPE Level 3</u> Two layers of gloves (nitrile) and full-body Category III Type 4 or 5/6 protective waterproof clothing (coveralls) plus impermeable apron that can be discarded. Hair should be covered by the overall's hood. Respirator with P2 or N95 filters (fit-tested) or disposable, half face, full face respirator, or loose fitting headtop with a powered air unit or airline can be used.</p>

Example / activity / scenario	Matrix results	PPE
		There should be no gap between gloves and sleeves (use tape if necessary).
You work at a poultry farm where HPAI has been detected.	Context Level = 1 Activity Level = 5 PPE Level = 3	<u>PPE Level 3</u> Two layers of gloves (nitrile) and full-body Category III Type 4 or 5/6 protective waterproof clothing (coveralls) plus impermeable apron that can be discarded. Hair should be covered by the overall's hood. Respirator with P2 or N95 filters (fit-tested) or disposable, half face, full face respirator, or loose fitting headtop with a powered air unit or airline can be used. There should be no gap between gloves and sleeves (use tape if necessary).
You are not at work and are walking on a beach (or other public place) and come across a large number of dead birds. HPAI has been detected in the country	N/A	Please do not touch these birds and notify it through 0800 80 99 66. Refer to https://info.health.nz/conditions-treatments/infectious-diseases/avian-influenza for health guidance for general public.

*area to be defined and communicated by MPI during response

Appendix 2: PPE diagram

Protect yourself from avian influenza when working with farm animals

Avian influenza (also sometimes known as bird flu) is a virus that could make you sick. Wear recommended personal protective equipment (PPE) when working directly or closely with sick or dead animals, animal faeces (poo), droppings, raw milk, and other animal materials that might have the virus.

Wash hands with soap and water, then put on PPE in this order



Health New Zealand
Te Whatu Ora

Scan for to see Worksafe
Mahi Maumaru Aotearoa
videos on respirator PPE



Adapted from: Protect Yourself From H5N1 When Working With Farm Animals (cdc.gov)

Follow these steps to safely put on PPE

1. Wash hands with soap and water, or if unavailable, use hand sanitiser.
2. Put on coveralls.
3. Put on waterproof apron if needed.
4. Put on the respirator, then safety goggles or face shield.
5. Use a head or hair cover if hooded coverall not used.
6. Put gloves on. You can use double gloves for reducing re-contamination when you remove the PPE.
7. Put on boots or boot covers.

While wearing PPE

- Do not eat, drink, smoke, vape, chew gum or use the toilet.
- Take regular breaks.
- Avoid touching your eyes, mouth and nose.
- Remove gloves after use.
- Change gloves and wash hands if gloves are torn, punctured or damaged.

Use separate clean and dirty areas if possible: one area to put on PPE and a different one for taking off the PPE.

Follow these steps to safely remove PPE (start with most contaminated items first)

1. Remove apron, if worn.
2. Clean and disinfect boots.
3. Remove boots.
4. Remove gloves (turned inside out), with coveralls.

5. Immediately wash hands with soap and water, or if unavailable, use hand sanitiser.
6. Remove head or hair cover if used.
7. Remove goggles or face shield. If reusable, clean and disinfect immediately.
8. Remove respirator.
9. Wash hands again with soap and water, or if unavailable, use hand sanitiser.

Always touch the least contaminated part of the PPE.

After removing PPE

- Immediately wash hands, arms, and face with soap and water.
- All reusable items (boots, goggles, face shield) should be cleaned right after removal. If not possible, put them in a separate sealed bag until ready for cleaning and disinfecting.
- Safely throw non-reusable PPE into biohazardous waste.
- If possible, shower and put on clean, uncontaminated clothes. If there are no showers, clean up as much as possible, put on uncontaminated clothing, shower as soon as you can, and put on clean clothes.
- Leave all contaminated clothes and equipment at work. Never take these outside the work area.
- Watch for symptoms of illness while you are working with potentially sick animals or materials. Continue watching for symptoms for 10 days after finishing working. If you get sick, tell your supervisor or talk with a doctor or Healthline.

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Appendix 3: Further information

- To report concerns about potential emergency animal diseases:
- Call [Biosecurity New Zealand's Exotic Pest and Disease Hotline](#) on 0800 80 99 66 or report [online](#)
- [Guidance on respiratory PPE](#)
- [Contact your local public health service](#)
- [Health information on avian influenza](#)
- [Ministry for Primary Industries – Biosecurity New Zealand](#)
- [Department of Conservation](#)