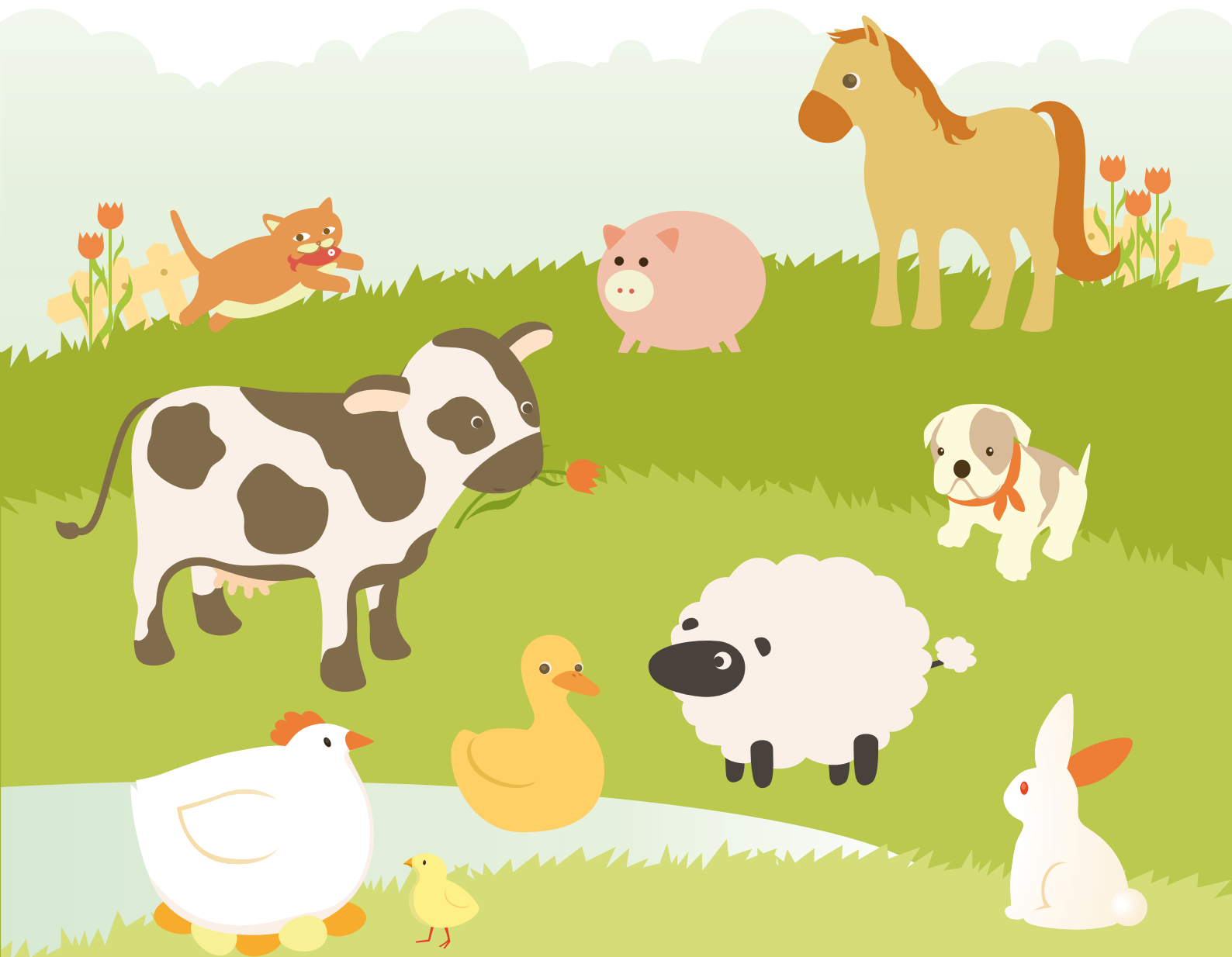


INFECTION CONTROL GUIDELINES *for* ANIMAL CONTACT

Petting zoo, animal farm and animal show operators

Wildlife exhibitors

Education and childcare services



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1. INTRODUCTION

Animal farms, animal shows, petting zoos, wildlife exhibitors and similar settings offer visitors the opportunity of seeing and coming into contact with animals – a valuable activity that brings many benefits to children and adults alike. Visiting these venues presents a very low, but possible, risk of visitors acquiring infection from the animals.

Zoonotic infections

Zoonoses are infections that can be passed from animals to humans. Sources of zoonoses reported in Australia include cattle, sheep, horses, pigs, dogs, cats, chickens, native birds, kangaroos, wild animals, rodents, reptiles (including turtles and tortoises) and bats. (see Appendix 1)

Reports of human illness associated with animal contact through farms, shows, petting zoos and wildlife exhibitors are infrequent in Australia. The following cases (all reported since 2002) illustrate however, that a small risk can exist:

- A cluster of four cases of Salmonella Reading in Queensland where all cases had contact with farm animals (calves, pigs and chickens) in the previous week. ¹
- Two Salmonella outbreaks associated with poultry hatching programs in childcare centres in Queensland and New South Wales. ¹
- An E. coli outbreak in six people who either visited or had contact with people visiting a petting zoo at a regional fair in South Australia. ¹
- A case of Haemolytic Uraemic Syndrome due to Enterohaemorrhagic E. coli in a toddler, suspected of being contracted whilst visiting several Queensland animal sanctuaries and handling kangaroos and koalas. ²

Providers of animal contact opportunities are committed to providing safe environments for animals and visitors. Most zoos and wildlife parks (wildlife exhibitors) in Queensland belong to a recognised industry association that requires adherence to professional levels in all areas of operation. Animal care in relation to husbandry, health, facilities, safety and hygiene are tightly regulated and subject to various Codes of Practice and Minimum Standards. Wildlife exhibitors work closely with veterinarians to ensure that their animals remain in excellent health. Wildlife exhibitors also have a strong commitment to occupational health and safety principles.

Aim of the guidelines

The aim of these guidelines is to reduce the risk of infection and ill health to visitors of petting zoos, animal farms, wildlife exhibitors and similar enterprises in Queensland. While supporting visits to these venues, the guidelines recommend anticipating possible risks, conducting risk assessments and consistently following infection control measures, the most critical of these being proper hand washing after coming into contact with animals. Guidance for animal exhibitors, education and childcare services is provided in separate sections of this publication.

The measures described here represent current best practice. While the guidelines are not legally binding, our aim is that those using them will endeavour to meet these standards.



2. DOES THE BUSINESS/ACTIVITY/EVENT INVOLVE ANIMAL CONTACT?

For the purpose of this document, ‘animal contact’ is the term used to encompass events (including animal rides), open farms, travelling shows or premises where animals are made available for contact with members of the public whether a fee is charged or not. They include (but are not limited to):

- Animal nurseries
- Zoos, wildlife parks and aquaria (wildlife exhibitors)
- Friendship farms
- Wildlife sanctuaries
- Nature education centres
- Travelling farms or animal troupes, including circuses
- Agricultural shows and field days
- Mini-farms and animal nurseries at schools
- Animal exhibits held at shopping centres/childcare centres/schools etc
- Native animal exhibitions
- Egg-hatching programs at childcare centres/schools.

The term ‘animal contact area’ as used in this document refers to an enclosure or defined area containing a number of enclosures where members of the public are invited, or encouraged to have direct contact with animals (e.g. petting or holding). In some settings, this contact may also occur outside a defined area – for example, where a keeper roams with an animal which the public are actively encouraged to pet. The term ‘animal contact area’ does not encompass every situation where the public may (of their own accord) have contact with animals.

3. THE WAYS ZOO NOTIC DISEASES ARE SPREAD

It should be noted that the vast majority of contacts between animals and humans do not result in any illness. Potentially, however, zoonoses can be spread by direct contact with animals, such as bites and scratches, or through indirect contact with animal faeces, bodily fluids, aerosols, birth products, or enclosures contaminated with these materials.³⁻¹⁰ Animals may carry a range of micro-organisms potentially harmful to humans without showing any signs of illness.¹¹

Some animals present a higher risk of zoonoses, because of increased shedding of harmful micro-organisms through their faeces, urine etc. These include newborn hoofed animals (for example, calves), newly-hatched chickens, some reptiles, and animals that are stressed or unwell.

There are several ways that zoonotic diseases can be spread:

Faecal-oral route

Animal faeces may pass directly from soiled hands to mouth, or indirectly by way of objects, surfaces, water or food contaminated with faeces. This spread may occur after touching animals or their enclosures and neglecting to properly wash hands with soap and running water. An example of a disease spread this way is Salmonella infection.

Inhalation

Humans may breathe in droplets containing harmful organisms (aerosols) originating from an infected animal. Dust or dried matter (for example, on the ground of animal enclosures) may also contain harmful organisms, become airborne and be inhaled. This can be a particular problem associated with birthing, or newly-born animals. An example of a disease spread this way is Q fever infection caused by the bacterium *Coxiella burnetii*.

Ingestion

Consuming contaminated food or water may lead to illness – for example, consumption of unpasteurised milk from an infected animal or eating animal feed. An example of disease spread this way is Salmonella infection.

Skin or mucous membrane contact

Infections may be spread directly through animal bites and scratches, or indirectly when broken skin or mucous membranes come in contact with contaminated animals or surfaces. An example of a disease spread this way is ringworm caused by fungi.

Urine

Some infections may be spread when urine is transferred from soiled hands or objects to the mouth, mucous membranes or cuts and scratches. An example of a disease spread this way is leptospirosis caused by the bacterium *Leptospira*, which can be carried by rats, pigs and cattle.



4. GROUPS AT INCREASED RISK

People who are at increased risk of contracting zoonoses and who may suffer more severe symptoms include:

- Pregnant women.
- Immuno-compromised adults or children (those with impaired immunity) including: people with diabetes, chronic kidney or liver disease, HIV, or other severe illnesses, and individuals who are taking medications that impair their immune system.
- Infants less than one year of age. This age group are at particular risk from direct and indirect contact with animals, and it is recommended that they do not touch animals or their enclosures.
- The elderly. Although this age group may have a reduced risk of contracting disease (because they are more likely to have acquired immunity), they may suffer more severe symptoms from any diseases to which they do not have immunity.
- Children under the age of five. This age group should be closely supervised when in contact with animals and their enclosures, to prevent animals licking their faces and hands, and to stop them putting contaminated fingers in their mouths.

People with known allergies

It is recommended that people with known allergies to some animals be aware of the potential risk for an allergic reaction, and in the case of asthmatics, have their relievers with them.

5. HOW TO REDUCE RISK OF DISEASE SPREAD

Hand-washing

Hand-washing is considered the most important practice in preventing the spread of disease for visitors to animal contact areas. Infectious diseases may be spread from either animals or their environment to people via contaminated hands. Good hygiene practices, such as the correct hand-washing technique and washing hands at appropriate times in the animal contact area, will decrease the risk of disease.

Always wash hands with soap and running water:

- after touching animals, their enclosures or food containers. Any part of the animal or its surrounds can be contaminated
- after being licked or bitten by animals
- after having contact with soil, urine or faeces in an animal contact area.

Always wash hands before eating, drinking or smoking. Teachers and carers should supervise children to ensure proper hand-washing.

Avoiding activities with a higher risk

While visiting animals do not:

- touch mouth with hands, or lick fingers
- eat food intended for animals

5. HOW TO REDUCE RISK OF DISEASE SPREAD

- eat inside the animal contact area (although there can be exceptions to this where the operator implements control measures to mitigate zoonotic disease risk in a visitor eating area)
- leave open wounds uncovered
- wipe hands on clothing, if avoidable
- use dummies, spill-proof cups or baby bottles in the animal contact areas
- return dummies or toys that have fallen on the ground or been in contact with animals to children until they have been washed with soap and water.

Unpasteurised milk

Unpasteurised (raw, untreated) milk is considered by Queensland Health as unsafe for human consumption because such milk may contain pathogenic micro-organisms. Boil milk to destroy these organisms before offering for human consumption. Unpasteurised or unboiled milk or milk products should not be offered for 'tasting'.

Animal birthing

Operators should ensure visitors are not exposed to aerosols from birthing domestic animals (particularly cattle, sheep, goats, cats) or their newborn. Therefore, if domestic animal births occur, operators should ensure that visitors have no contact with the birthing environment.

Egg hatching

Egg-hatching programs should obtain their eggs from a commercial hatchery. Particular care with hand-washing should be taken when children handle new-born chickens.

Bats

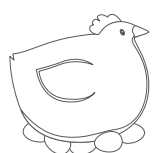
Bats and flying foxes may carry Australian Bat Lyssavirus.¹² The public should avoid bites or scratches from bats or flying foxes by not touching them under any circumstances.

Aquatic animals

A number of diseases are associated with direct contact with aquatic animals and their tank water.⁵ Apart from generic contact recommendations (such as hand-washing following the event, and avoiding puncture wounds), people with pre-existing skin wounds or diseases such as eczema should not contact potentially contaminated water, even if lesions are covered. Aquaria should be maintained and monitored following recommended guidelines on ensuring water quality and animal health.

Bites and scratches

In the event that skin penetration occurs, first aid in the form of thorough washing of the wound with soap and water and/or application of an appropriate skin antiseptic should be administered immediately. The visitor must then be advised to seek medical advice.



6. REQUIREMENTS FOR HAND-WASHING

Ideal sanitation facilities include the provision of hand-washing facilities with:

- running water
- soap (bar or liquid)
- disposable paper towels (preferred option) or air dryer if paper towels not available
- bins to put used disposable paper towels into
- sufficient numbers to be freely available to visitors.

Where this level of sanitation is not possible (for example, during a temporary animal fair in a country paddock with no water supply, or where the proper disposal of waste water is not possible), the minimum requirement is provision of alcohol-based handrub or alcohol-based wipes for hand-washing, and advice regarding the need to wash with soap and water as soon as possible.

Proper hand-washing methods:

- using soap and running water; warm to hot water is best (to avoid scalds the temperature must not exceed 50°C)
- wetting hands thoroughly and lathering with soap
- rubbing hands vigorously for at least 10-15 seconds as you wash them
- paying attention to back of hands, wrists, between fingers and under fingernails
- rinsing hands well under running water
- drying hands thoroughly with a disposable paper towel, or air dryer
- turning off the tap with the used paper towel, if applicable.

Accessibility

Studies have shown that people are more likely to wash their hands when they must pass by a hand-washing facility to exit the premises.¹³ Hand-washing facilities need to be accessible to visitors leaving the animal contact area and to those eating on the premises. Ensure small children and people with disabilities can reach and use the hand-washing facilities.

Signs directing visitors to hand-washing facilities should be obvious and adequate to ensure visitors are made aware of the importance of hand-washing. Signs should be prominently placed at locations before they enter and leave animal enclosures, and before they enter designated eating areas. (see Appendix 2 for examples of hand-washing signs).

If visitors are invited to touch animals during or after an animal presentation, effective communication regarding hand-washing could be achieved by the presenter verbally reminding people to wash their hands at the conclusion of the presentation.

7. SPECIFIC INFORMATION FOR PROVIDERS OF ANIMAL CONTACT OPPORTUNITIES

What are the responsibilities of providers of animal contact opportunities?

The operator is liable for people reasonably likely to be harmed by the operator's actions or lack of actions (negligence) if they are careless and there is a perceivable, avoidable risk. Therefore, operators should exercise their duty of care, and take precautions to protect visitors.

What precautions should operators take?

Operators should assume that all animals are capable of carrying micro-organisms potentially harmful to humans, and take appropriate precautions to prevent the spread of disease, including:

- practise and promote good, thorough hand-washing with soap and running water, or use of alcohol-based hand rub or alcohol-based wipes after contact with animals or their enclosures
- position hand-washing facilities so that visitors are encouraged to wash their hands on exiting animal contact areas, and before entering designated eating areas
- advise adults to supervise young children in hand-washing, to ensure good practice
- adequately label hand-washing products
- separate animal contact areas from visitor eating areas, and implement controls to manage any risk associated with animals in visitor eating areas
- provide adequate bins for visitors to dispose of tissues, paper towels and food
- maintain a first-aid kit in case of accidental scratching or biting to visitors
- keep birthing animals that may pose a risk out of public areas (as aerosols produced may be hazardous)
- only provide milk or milk products for tasting after they have been pasteurised or boiled
- provide adequate barriers and signage to prevent visitors from touching animals that are not available for touching or that should not be touched
- do not use animals with unsuitable temperaments as contact animals
- maintain animals in an environment appropriate to maintaining their health and well-being
- alleviate any stress and overcrowding of animals to reduce possibility of disease
- provide only healthy animals for public display or contact:
 - establish a close association with a vet to ensure animals are clinically healthy
 - maintain a comprehensive parasite control program with the vet
 - exclude animals which are unwell, for example with skin sores, diarrhoea etc.
 - vaccinate or screen animals when appropriate (as per veterinary advice).
- regularly remove and appropriately dispose of faeces and other wastes such as birth products
- place obvious and prominent hand-washing and directional signs in appropriate locations, such as the entrance and exits of animal contact areas, to remind visitors to:
 - use good hygiene practices in the animal contact area
 - only eat or drink in designated areas, generally not in animal contact areas



7. SPECIFIC INFORMATION FOR PROVIDERS OF ANIMAL CONTACT OPPORTUNITIES

- wash hands with soap and running water, or use alcohol-based hand rub or alcohol-based wipes when leaving animal contact areas and before eating.

(See Appendix 2 for suggested locations and elements of signage)

- consider providing the public with advice regarding groups at increased risk of contracting zoonoses (see Section 4), for example by:
 - including this information on signage at entry point
 - including this information in fine print on tickets
 - providing this information in a fact sheet at the front counter.
- consider sending pre-visit information to school groups (see Appendix 3) and encourage teacher pre-excursion visits before they attend the petting zoo, farm or wildlife exhibitor. This provides the teacher or carer with opportunities to enhance the educational experience for children. Pre-visit information could include the types of animals, their behavioural characteristics, activities offered, facilities available and the commonsense precautions to prevent spread of disease.

Alternatively a short presentation can be given by a staff member detailing appropriate conduct in the animal contact area, and the importance of washing hands after touching animals and before eating.

- the operator must take appropriate measures to manage any associated risk where contact between animals and visitors is promoted, or where visitors are allowed unsupervised access to animals.

8. ANIMAL CONTACT FACILITY: RECOMMENDATIONS FOR PERMANENT OR TEMPORARY FACILITIES

Permanent premises

Permanent premises need to provide adequate hand-washing facilities as described in Section 6, *Requirements for hand-washing*.

Temporary or mobile premises

Operators of temporary or mobile premises are faced with additional challenges in maintaining adequate infection control among visitors. The following represent some of the issues and methods of dealing with them:

Hand hygiene options (in decreasing order of preference)

- Provide hand-washing facilities that conform to the recommended requirements for hand-washing (see Section 6).
- Hire portable hand-washing facilities that conform to the recommended requirements for hand-washing (see Section 6). If a portable basin is not feasible, water containers with taps (such as those used for drinking water) can be mounted above basins. However, water used for washing hands must be running from the tap (using water in a basin is not acceptable), and soap should be used. Provide single use paper towels to dry hands.
- Utilise existing permanent hand-washing facilities, and locate animal activities as close as practicable to these.
- Provide alcohol-based hand rub or alcohol-based wipes, and inform visitors who use these of the need to wash with soap and running water as soon as able.

Premises placement

- When arranging to hold an exhibition in a shared use environment (e.g. shopping centre), discuss placement issues with the management of the centre when the event booking is made. An environmental health officer from the local council could be consulted for further advice if needed.
- The exhibition should be well separated from food service operators.
- The exhibition should be located as close as practicable to hand-washing facilities (as per above).

Signage

- Erect signage instructing visitors not to eat inside the animal contact areas, and when and where to wash their hands.

Waste disposal

- Contact the local council environmental health officer to discuss options for an appropriate waste disposal system. Waste water temporarily stored in a suitable holding tank of sufficient capacity must be emptied as often as necessary to prevent overflow, nuisance or an insanitary condition. Storage times for waste water should also be discussed with the venue owner and environmental health officers.
- Provide bins for disposal of paper towels and other solid wastes.

Disinfection of surfaces

- Contaminated surfaces (such as benches) in high-use areas which the public have direct contact with at temporary premises or visiting animal displays should be regularly disinfected. Soiled surfaces should be cleaned first with detergent and hot water, and then disinfected. Choice of disinfectant depends on the application – individual products should be checked to ensure they are appropriate for each operation. Recommended generic disinfectants include freshly made bleach solution (such as sodium hypochlorite) made up to 1000 parts per million, F10, or Virkon S.



9. SPECIFIC INFORMATION FOR EDUCATION AND CHILDCARE SERVICES

What are the responsibilities of education and childcare services?

Education and childcare services have a duty of care and occupational health and safety responsibility to protect children and staff from foreseeable risk of harm or injury. (Refer to the *Child Care Act 2002* Guiding Principles, and the *Child Care Regulations 2003*) This encompasses responsibility to:

- be informed about and aware of risks
- develop and implement procedures to minimise associated harm
- supervise children to ensure they follow procedures to keep themselves safe.

Therefore, you should take precautions to reduce the risk of ill health to the children in your care who visit petting zoos, farms or wildlife exhibitors, or have animal shows visit them. Assume all animals are capable of carrying micro-organisms potentially harmful to humans and take appropriate precautions to prevent disease spread.

Proper hand-washing is the most important practice in preventing the spread of disease. Allow enough time during the visit for children and carers to follow the advice in these guidelines.

Before the visit

Seek information from the petting zoo, farm, animal show operator or wildlife exhibitor you are visiting regarding:

- which animals are on display
- which animals may be touched by the children
- whether viewing animal birthing is likely and if so, would the onlookers be at risk from aerosols produced during that process
- whether facilities are available for hand-washing, including running water, soap, disposable paper towels and bins. (If hand-washing facilities are not available take alcohol-based hand rub or alcohol-based wipes to use until proper hand-washing can be done)
- whether small/disabled students or students with disabilities can reach and use hand-washing facilities
- any other information relevant to your visit.

Educate the children before the visit regarding respectful behaviour towards animals. This reduces the risk of disease spread, for example through accidental scratching or biting. Particular care should be taken in never coming between an animal and its food or its young, and not handling its food or young. Emphasise calm, quiet behaviour, talking quietly with no loud noises or sudden movements and treating animals with consideration.

Familiarise the children and adults with the behaviours outlined in *During the visit*, below. For instructions on how to wash hands see the Section 6, *Requirements for hand-washing*. Discuss how children will be supervised by accompanying carers, especially for proper hand-washing, to ensure duty of care requirements are met.

During the visit

Sensible steps for children and their carers to follow during the visit are described below:

- Ensure any open wounds are covered.
- Wash hands after leaving animal contact areas, whether animals were touched or not.

9. SPECIFIC INFORMATION FOR EDUCATION AND CHILDCARE SERVICES

- Wash hands with soap and running water before eating.
- Only eat or drink in designated areas, not in animal contact areas.
- While visiting animals do not:
 - suck fingers or objects
 - kiss the animals
 - touch mouth with hands, or lick fingers
 - eat food intended for animals
 - eat in animal contact areas
 - wipe hands on clothing.
- Always wash with soap and running water after:
 - touching animals, their enclosures or food containers.
 - being licked or bitten by animals
 - having contact with soil, urine and faeces .
- Always wash hands with soap and running water before eating, drinking or smoking.
- Do not allow dummies, toys, spill-proof cups or drink bottles inside the animal enclosures.
- Wash dummies or toys that have fallen on the ground or in contact with animals with soap and running water and before returning to children.
- Advise parents and guardians to supervise children to ensure good hand-washing.
- Ensure that staff/guardian to student ratios are sufficient for adequate supervision of children.

After the visit

If a member of the group becomes ill (e.g. diarrhoea, nausea, vomiting) in the days after the visit, advise them to see their doctor and explain that they have had recent contact with animals.



10. LEGAL OBLIGATIONS FOR ANIMAL CONTACT AREAS

In Queensland, local governments are the responsible agencies for administering and enforcing the provisions of the *Public Health Act 2005* relating to animal contact areas. Local governments can use the powers of the Act to alleviate public health risks by enforcing the removal of waste or a dead or living animal at an animal contact area.

The *Public Health Act 2005* can be viewed at: www.legislation.qld.gov.au

Local governments also have the power to create local laws and may have their own local laws about public health risks or animal contact requirements. Childcare centres are also required to comply with the *Child Care Act 2002*, and the *Child Care Regulations 2003*.

In addition to these pieces of legislation, businesses have a duty of care under common law to ensure the safety of their patrons.

11. CONTACTS

For information and advice on zoonotic disease contact:

- your doctor, or
- your veterinarian, or
- an Environmental Health Officer at your local council
- an Environmental Health Officer at the Queensland Health Population Health Unit in your area.

For questions about these guidelines contact:

The Sunshine Coast Population Health Unit on (07) 5409 6600, or the Cairns Tropical Population Health Unit (07) 4050 3621.

APPENDIX 1 ~ INDEX OF ZOOSES

** Many of the gastrointestinal infections listed are most commonly contracted through eating contaminated food or through person-to-person spread. This table is limited to sources and routes applicable to the guidelines in this publication.*

| Route of transmission | Disease | Main animal reservoir | Clinical effects | Prevention |
|--|-------------------------------|--|---|--|
| Gastrointestinal* (Faecal-Oral route) (can also be water or food-borne) | Campylobacter infection | Cattle, sheep, poultry, other birds, wildlife, pigs, rodents, puppies and kittens | Diarrhoea (loose bowel movements), mild fever, stomach cramps, nausea and vomiting | Hand-washing and avoiding placing fingers, objects, etc into mouth |
| | Cryptosporidiosis, Giardiasis | Cattle and other domestic animals, macropods | Watery diarrhoea, stomach cramps, fever, vomiting and anorexia | Consuming only pasteurised or boiled milk |
| | Salmonellosis | Reptiles, cattle and sheep, horses, pigs, poultry | Diarrhoea, fever, stomach cramps, nausea and vomiting | Worm and other gastroenteric parasite control programs for animals |
| | Shiga toxin producing E. coli | Cattle and sheep | Diarrhoea +/- blood. In severe cases, kidney and brain injury | Avoid contact with faeces or potentially contaminated materials |
| | Hydatids | Dogs, including native and feral | Slow growing fluid-filled cysts, mainly on liver or lungs. No symptoms unless very large or rupturing | Avoid eating raw meat |
| | Toxoplasmosis | Cats, while intermediate hosts include sheep, goats, rodents, pigs, cattle, chickens and birds | May be asymptomatic or acute with fever and swollen lymph glands – can cause birth defects. | |
| | Toxocariasis | Dogs and cats, especially puppies | Flu-like illness with rash and wheezing. Blindness (rarely) | |
| | Yersiniosis | Wild and domestic birds and mammals, especially pigs | Fever, diarrhoea and abdominal pain | |



| Route of transmission | Disease | Main animal reservoir | Clinical effects | Prevention |
|---|---|---|--|---|
| Dermal (direct contact with mucous membranes, skin or coat of animal) | Orf | Sheep, goats | Lesion on hands, arms or face | Good personal hygiene |
| | Mites (e.g. scabies) | All animals | Itchy, red, inflamed skin lesions | Wash exposed area with soap and water |
| | Ringworm (Dermatophytosis) | Cattle, horses, cats, dogs, macropods | Flat, spreading, ring-shaped lesions | Minimise intimate contact with animals Screen animals routinely for skin parasites or conditions and treat using approved products |
| | Aquatic dermatoses: Mycobacteria, Erysipelothrix, Vibrio species., Pseudomonads | Aquatic mammals, fish, crustacea, molluscs, echinoderms | Skin plaques, nodules, ulcers. Often itchy or painful. Sometimes slow growing and persistent. Usually on hands | Care with contact, especially skin puncture due to spines, bites. Avoid contact with contaminated tank water |
| Respiratory (Inhalation of droplets, dust, faeces) | Psittacosis | Birds | Fever, headache, rash, myalgia, chills, respiratory disease | Hand-washing and personal hygiene Avoid disturbing birds in cages, as this produces dust. Keep cages clean Minimise stress on birds |
| | Q Fever | Cattle, sheep and goats, cats | Abrupt onset of fever, chills, profuse sweating, severe headache, fatigue, nausea | Human vaccination Avoid inhaling droplets from animal birth products, urine, milk and faeces Avoid inhaling dust from contaminated materials (e.g. clothing, straw, wool or hides) Consume only pasteurised or boiled milk |

| Route of transmission | Disease | Main animal reservoir | Clinical effects | Prevention |
|--|--|---|--|---|
| Respiratory (Inhalation of droplets, dust, faeces) | Hendra virus | Horses | Pneumonitis, coma and death | Hand-washing and personal hygiene Quarantine of ill horses |
| Bites, scratches, trans-membrane | Leptospirosis | Cattle, including dairy herds, rats, pigs | Sudden onset of fever, headache, chills, muscle aches, conjunctivitis, rash | Protective clothing Hand-washing and hygiene Vaccination of animals |
| | Australian Bat Lyssavirus (rabies-like virus) | Bats and flying foxes | Loss of brain function, encephalitis, death | Human vaccination Avoid contact with bats and their environs |
| | Tetanus | Many animal reservoirs | Lockjaw, painful muscular contractions | Human vaccination |
| | Cat scratch fever and wound infections from bites | Cats, dogs, rodents | Flu-like symptoms, painful lymph node swelling, occasionally more severe forms | Avoid bites, scratches, dangerous animals Use gloves and proper restraint |



APPENDIX 2 ~ SIGNAGE

Location of signs

Consider the movement of visitors and erect signage with public health advice in locations for maximum exposure, such as:

- entrances and exits of animal contact areas
- entrances to designated eating areas.

Elements of signage

Public health signage should utilise diagrams/pictures to be useful to children and non-English speakers.

Words that can be used on public health signage include:

- Wash hands thoroughly after touching animals or their enclosures
- Wash hands thoroughly before eating, drinking or smoking
- Eat and drink in designated areas only and use bins provided
- Hand-washing facilities are located ... (locations or directions to be added by operator)
- This advice is in the interest of public health.

Pictures which illustrate good hand-washing methods are useful. An example of hand-washing signage aimed at children is available at: www.health.qld.gov.au/germbusters/hygiene.asp

Directional signs (optional)



APPENDIX 3 ~ SAMPLE FACT SHEET FOR EDUCATION AND CHILDCARE SERVICES

Animals in public settings

Animal farms, animal shows, petting zoos, wildlife exhibitors and similar settings offer visitors the opportunity of seeing and coming into contact with animals – a valuable activity that brings many benefits to children and adults alike. Visiting these venues presents a very low, but possible risk of visitors acquiring infection from the animals. This handout summarises precautions that can be taken to effectively manage such risks.

Providers of animal contact opportunities are committed to providing safe environments for animals and visitors. Most zoos and wildlife parks (wildlife exhibitors) in Queensland belong to a recognised industry association that requires adherence to professional levels in all areas of operation. Animal care in relation to husbandry, health, facilities, safety and hygiene are tightly regulated and subject to various Codes of Practice and Minimum Standards. Wildlife exhibitors work closely with veterinarians to ensure that their animals remain in excellent health. Wildlife exhibitors also have a strong commitment to occupational health and safety principles.

Precautions to take

If a person comes into contact with an animal, the person's hands can become contaminated with bacteria or other organisms. If these contaminated hands come in contact with the mouth, the person might ingest the organisms and become sick.

In animal contact areas take the following precautions:

- Don't eat or drink – eating and drinking should occur in designated non-animal areas.
- Smoking should not occur in animal areas.
- If feeding animals, use only animal foods.
- Supervise young children closely to avoid hand-to-mouth behaviours (e.g. thumb-sucking). Toys, dummies, spill-proof cups, and bottles should not be used in animal contact areas.

Hand-washing

Hand-washing with soap and water will clean the hands and prevent illness. It is the MOST important thing that can be done to prevent illness. Hands should be washed after leaving animal areas (regardless if animal contact occurred), and before eating in the non-animal areas. Supervise and assist children with hand-washing.

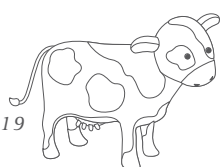
Populations at increased risk

Some people have a higher risk of illness from bacteria carried by animals in these settings. These people include:

- young children (especially less than five years old)
- older adults
- pregnant women
- people who are mentally impaired
- people with compromised immune systems.

Persons at a higher risk of getting sick should take heightened precautions that include:

- thorough and frequent hand-washing
- consider avoiding contact with animals and their environment (pens, manure)
- avoiding animals that are at increased risk of spreading disease, such as young hoofed animals, young poultry, reptiles and ill animals.



APPENDIX 4 ~ FACT SHEET - AVOIDING ILL HEALTH WHEN PETTING FARM ANIMALS

Public Health Fact Sheets

Avoiding Ill Health when Petting Farm Animals



July 2001

Introduction

One of the highlights of visiting farms and petting nurseries is seeing and contacting animals. Unfortunately all animals carry a range of micro-organisms, some of which can be transmitted to humans where they may cause ill health. Bacteria, viruses, fungi and parasites can be transmitted from animals to humans by:

- direct contact during handling of animals, through bites and scratches
- indirect contact through urine, faeces, secretions or objects contaminated with these materials

Animals that may transmit infections to humans include cattle, horses, pigs, sheep, chickens and other pet and wild birds, dogs, cats, rats, mice and other rodents, turtles and other reptiles, and other wild animals. Types of infections transmitted from animals to humans may include gastroenteritis, skin infections, chest infections, flu-like illnesses and infections of unborn babies. Some infections which may be contracted on farms present a serious hazard and may potentially cause severe disease, even death.

Whilst the hazard from infection resulting from a farm visit is real, the risks are readily controlled by familiar measures which should

be an everyday part of life. The following sensible steps will help make your visit safer, healthier and more enjoyable.

Before your visit:

- Discuss visit arrangements with the management of the farm or nursery;
- Assure yourself that the facilities meet an acceptable safety standard:
 - Areas open to and routes followed by visitors are free of animal faeces thus preventing contamination of footwear, clothing or hands;
 - Visitors are effectively excluded from contact with animals except in designated animal contact areas;
 - Visitors are excluded from contact with manure, compost heaps and soiled equipment: Areas intended for animal contact are well supervised by appropriately trained staff.

APPENDIX 4 ~ FACT SHEET - AVOIDING ILL HEALTH WHEN PETTING FARM ANIMALS

Public Health Fact Sheet

- Animals in contact areas are in good health, kept clean and have not recently given birth or been born.
 - Washing facilities with soap and running water are provided on exiting animal contact areas, within ealing areas and at the exit to the farm when soiled footwear might be removed.
 - Eating, picnic and kiosk facilities are sited away from areas where animals including domesticated fowl, farm dogs etc are likely to be contacted.
- Decide what the ratio of pupils to teachers/ child care personnel/ parents should be. As a general rule, there should be one supervisor to every eight children under eight years old. If supervision levels are less than this, consider whether you should allow direct contact with the animals for children under eight;
- Discuss with pupils the rules for the visit, stressing that they must not eat or chew (including sucking lollies or chewing gum) outside the areas in which you permit them to do so;
 - Make sure that pupils wear appropriate clothing, including sturdy outdoor shoes (not sandals) or wellington boots if possible;
 - Check that cuts, grazes etc on children's hands are covered with a waterproof dressing.
- During the visit make sure that the children:
- Do not kiss animals;
 - Always wash their hands thoroughly before eating, after any contact with animals and again before leaving the farm;
 - Eat only in designated areas;
 - Do not eat food which has fallen to the ground;
 - Do not suck fingers or put hands, pens, pencils or crayons etc in mouths;
 - Do not taste animal foods (i.e. eat only food that they have brought with them, or food for human consumption they have bought on the farm);
 - Clean or change their footwear before leaving, remembering to wash their hands after any contact with animal faeces on their footwear.
- Check that the children play in their allocated groups during the visit and that they:
- Do not use or pick up tools (eg. spades and forks) unless permitted to do so by farm staff;
 - Do not climb on to walls or animal pens etc;
 - Listen carefully and follow the instructions and information given by the farm staff;
 - Approach and handle animals quietly and gently;
 - Do not chase, frighten or torment the animals
- Remember:
- The children are your responsibility during the visit;
 - You should supervise them during the visit, in particular during hand washing to make sure that each child washes thoroughly. Farm staff may be able to help you with this supervision;
 - Allow plenty of time before eating or leaving so that the children do not have to rush.
- If a member of your group shows signs of illness (eg sickness or diarrhoea) after a visit, advise them or their parent/guardian to visit the doctor and explain that they have had recent contact with animals.



APPENDIX 4 ~ FACT SHEET - AVOIDING ILL HEALTH WHEN PETTING FARM ANIMALS

Public Health Fact Sheets

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For more information, contact your local public health network:



Central Public Health Unit Network servicing Brisbane Northside, Longreach, Redcliffe, Rockhampton, Sunshine Coast, Wide Bay. For contact details go to <http://www.health.qld.gov.au/pnu/cpon/>

Southern Public Health Unit Network servicing Brisbane Southside, Darling Downs, Roma, South Coast, South West Queensland, West Moreton. For contact details go to <http://www.health.qld.gov.au/pnu/spon/>

Tropical Public Health Unit Network servicing Cairns, Mackay, Mount Isa and Gulf Townsville. For contact details go to <http://www.health.qld.gov.au/pnu/tpon/>

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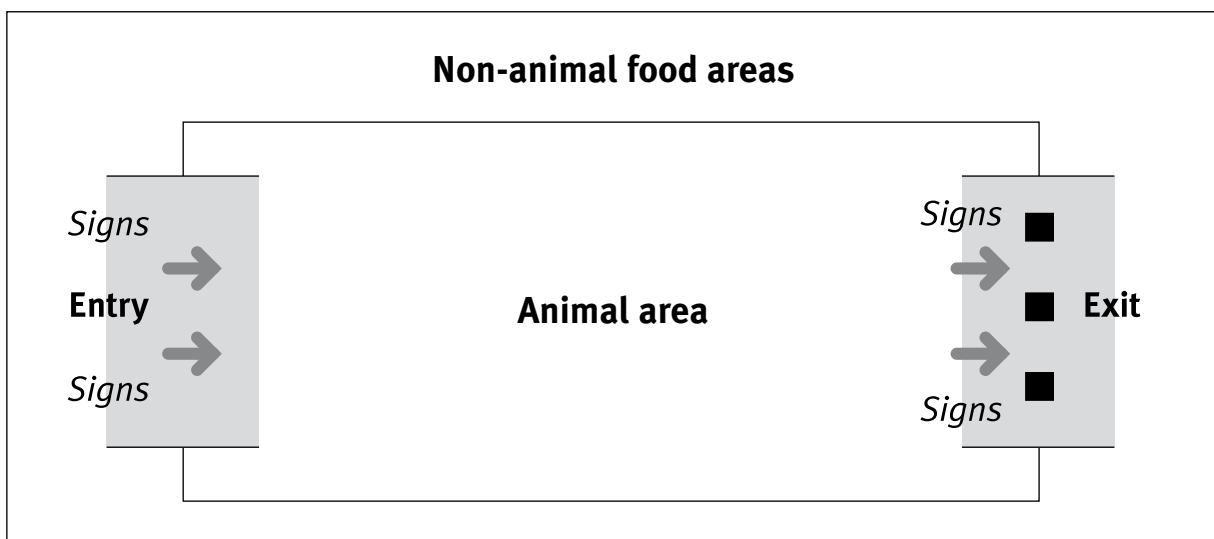
For medical advice, contact your doctor, hospital or health clinic.

APPENDIX 5 ~ POSSIBLE DESIGNS FOR ANIMAL CONTACT FACILITIES

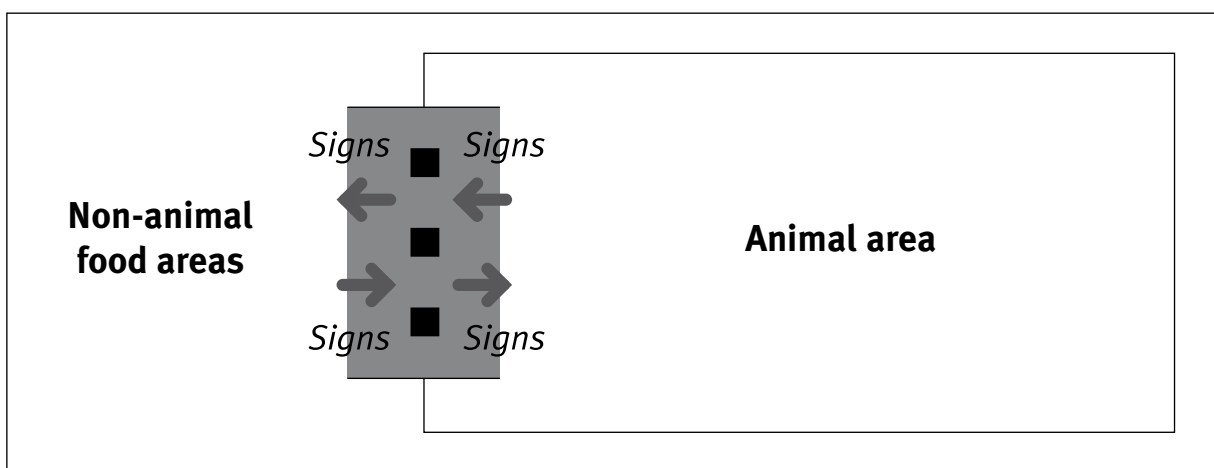
Possible designs for animal contact facilities, with separate animal and non-animal/food areas as well as transition areas

(Adapted from: *Compendium of measures to prevent disease associated with animals in public settings, 2006. National Association of State Public Health Veterinarians, USA*)





Design 1



Design 2



Legend

-  Transition into animal area
-  Hand-washing station
-  Transition into and out of animal area
-  Transition out of animal area



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INFECTION CONTROL GUIDELINES
for ANIMAL CONTACT

