

Hazard Alert — Bird Droppings

Bird droppings, from large populations of roosting birds, may present a risk of disease to people. This alert provides advice on the precautions to take when cleaning up and disposing of bird droppings.

What Causes the Health Risk?

The most serious risks arise from organisms that thrive in the droppings, feathers and nesting debris on ledges and in lofts.

External parasites may also become a problem when infested birds leave their roosts and nests. The parasites they leave behind can invade buildings and bite or irritate people's skin.

Some of the diseases that can be caused by the organisms in bird droppings are:

Bacterial: e-coli; salmonella; listeriosis; campylobacter; psittacosis.
Fungal: histoplasmosis; cryptococcosis; candidiasis.
Viral: meningitis; Newcastle disease.
Parasitic/Protozoal: toxoplasmosis; trichomoniasis.

There are many disease-causing organisms in our environment but because exposure is impossible to avoid, most humans develop resistance to these normal exposures.

The bacteria and parasites found in bird droppings can be (a) breathed in (b) ingested by eating contaminated food or (c) from eating with dirty hands. Infection is most likely, however, when dust containing massive amounts of the bacteria or parasites is inhaled—especially after a roost has been disturbed. Asthma-like reactions are also possible.

The risk of disease is greatly increased for people with weakened resistance – i.e. those people who have existing conditions that compromise the body's defence systems, e.g.

- Antibiotic therapy;
- Skin damage via injury or surgical trauma; and
- Chronic disease.

Where are Bird Droppings Likely to Be Found?

Bird droppings are likely to be found by employees during the following types of work:

- Construction workers;
- Maintenance workers;
- People working in roof spaces; and
- Demolition workers.

Employers and employees need to be alert to these possible sources of exposure.

Precautions

- Employers should select workers whose immune status is high. Medical assistance may be needed to obtain a medical history – with attention to current diseases such as cancer, prolonged oral steroid therapy, pulmonary disease, diabetes mellitus and other conditions. (The employee’s permission must be obtained first.)
- Avoid using chemicals. Chemical sterilisation of droppings before removal has *not* proven to be effective against all organisms (and may present another health hazard from chemical exposures).
- Dampen deposits of bird droppings with a **gentle** spray of water until sufficiently wet to prevent any dust becoming airborne. This may take several hours or more of repeated spraying to penetrate the mass of droppings completely. (**Note:** Strong jets of water may cause dust to become airborne and runoff may contaminate public areas.)
- Seal off windows, doors and ventilation inlets to inhabited areas.
- Wear a high efficiency (HEPA) dust respirator, disposable gloves and overalls. On completion of the job treat the disposable gloves and overalls and respirator filters as contaminated waste and add them to the droppings for disposal.
- Double bag the droppings and disposables in heavy 3 mil plastic bags and dispose in a landfill.
- Non-disposable work clothing and respirators should be removed, placed in a plastic bag, and sealed. These items must be disinfected in the bag before final cleaning and reuse.
- Shower after scrubbing boots.

Case Histories

1. A 37-year-old mother of five contracted ‘pigeon lung’ from feral pigeons nesting outside her apartment. The family doctor said: “The fire escape at the back would get pigeon debris on it and was cleaned regularly by the mother and one child at a time. That, we think, is why the mother had the most severe symptoms and died. The father, who did no cleaning, was unaffected.” The children are being treated for the illness.
2. The potential for infections (in this case histoplasmosis) to spread downwind is clearly illustrated by an outbreak that occurred when dry soil under a starling roost was bulldozed. People up to one mile away contracted histoplasmosis and the bulldozer operator died after a 7-week illness.
3. Failure to diagnose rare diseases (in this case cryptococcosis) can result in fatalities. A 46-year-old man developed a chronic neurologic syndrome after dismantling a steeple. He was treated for tuberculous meningitis and the symptoms went into remission. One year later he was hospitalised with chronic inflammation of the brain and diagnosed as having cryptococcal meningitis. By that late stage, treatment was unsuccessful and the man died.

More Information

Contact your local OSH office for further information.