This article was produced in collaboration with the Public Health Agency of Canada.

Avian Influenza (Bird Flu)

The Issue
For most Canadians, the risk of getting avian influenza (bird flu) is extremely low. However, it is important to know how to minimize your risks, especially if you are traveling to an area affected by avian flu.

Background
Avian influenza is a contagious viral infection that can affect all species of birds but can, less commonly, infect mammals. There are at least 15 types of avian flu. They are all caused by various strains of type A influenza virus. Birds spread avian flu virus to one another through secretions and droppings. Some species of wild birds, such as ducks, can carry the virus and infect other birds without getting sick themselves. While all bird species are thought to be susceptible to infection, domestic poultry flocks are more likely to become severely ill and die when infected and the outbreaks can rapidly turn into epidemics.

Health officials around the world are keeping a close watch on a serious outbreak of avian flu that spread throughout a number of Asian countries in 2004. The outbreak was caused by a strain of avian influenza virus called H5N1, which affected millions of chickens and other birds. There have also been a small number of human cases of avian flu, and some of the people infected with H5N1 have died.

How Avian Flu Spreads from Birds to People
It is important not to confuse human cases of avian influenza with cases of human influenza. Human influenza (“the flu”) is a common respiratory disease that spreads easily and rapidly from person to person. Although different strains of avian flu virus circulate year-round among birds, the virus does not usually spread to people.

The Asian strain of avian influenza H5N1 virus has been confirmed in poultry and wild birds in several countries in the following regions: Asia, Europe, Africa and the Middle East. While this demonstrates the rapid and ongoing geographical spread of the virus, information to date has shown that the greatest risk to humans arises when the virus becomes established in small backyard poultry flocks, which allow continuing opportunities for close human contact, exposures, and
infections to occur. The scientific evidence to date shows that avian flu virus does not spread easily or rapidly from one person to another.

**The Human Health Effects of Avian Flu**

Although human cases of avian flu are rare, people who become infected with the H5N1 virus can become seriously ill and may die. The symptoms can resemble those of human influenza, including fever, cough, aching muscles and a sore throat. The human health effects of avian flu can also include eye infections and serious respiratory infections, including pneumonia.

At this time, there is no vaccine to provide people with specific protection against avian flu. Studies suggest that certain anti-viral drugs designed to fight human influenza may also help prevent serious illness in people who become infected with the avian flu virus.

**Concerns about a Possible Influenza Pandemic related to Avian Flu**

As noted earlier, the avian flu virus does not spread easily or rapidly among humans. However, flu viruses have the capacity to mingle with one another and morph into a new strain. This is one of the reasons that health officials keep such a close watch on outbreaks of avian flu. If someone with human influenza also becomes infected with avian influenza, there is a chance that the viruses could mingle and turn into a new virus that spreads easily from person to person. This could lead to a worldwide epidemic (or pandemic) of influenza. No one would have immunity to the new virus, and it would take four to six months to develop a new vaccine. The World Health Organization (WHO) has alerted countries about the need to intensify surveillance and implement control measures to contain outbreaks of avian flu. A standard control measure is to kill flocks of poultry that are infected or may have been exposed to avian flu. As a precautionary measure, the WHO has selected H5N1 prototype strains for influenza H5N1 pandemic vaccine development. Vaccine manufacturers and researchers are doing the foundation work that is necessary to develop a pandemic vaccine, but an actual vaccine against a pandemic cannot be manufactured until the virus has emerged. The WHO and has encouraged vaccine manufacturers around the world to work with vaccine seed strains from pandemic-like influenza viruses, such as H5N1.

**Minimizing Your Risks**

Keep things in perspective. For most Canadians, the risk of avian flu is extremely low. The risk of health effects from human influenza is far greater. The best way to protect yourself and others from influenza is to:

- Get a flu shot.
- Wash your hands regularly and with thorough use of soap and warm water.
- Stay home if you are sick.

For more information on minimizing your risks, see the avian flu travel advisory on the Public Health Agency of Canada website in the Need More Info section below.

There is no evidence to suggest that the consumption of cooked poultry or eggs could transmit the avian flu to humans. All the evidence to date indicates that thorough cooking will kill the virus.

While unlikely, transmission of the virus to humans from consumption of uncooked or undercooked eggs or poultry cannot be completely ruled out. To limit potential risks, poultry and eggs should be thoroughly cooked to kill any possible viruses or bacteria. Proper safe food handling practices such as handwashing and keeping poultry and egg products separate from other food products to avoid cross contamination should be followed. This is consistent with long standing advice from Health Canada and other health authorities throughout the world.

Traditional foods such as wild geese and ducks are important sources of food for many Canadians. These foods often have a cultural and economic role as well. Although the risk of catching avian flu from wild birds is very low, hunters and people who prepare and cook wild birds may be at a higher risk. So it is important for people who hunt and eat wild birds to take precautions to help reduce any risk.

- do not handle or eat sick birds or birds that have died from unknown causes
- cook game meat thoroughly, to an internal temperature of approximately 71°C (160 °F)
- avoid direct contact with blood, feces, and respiratory secretions of all wild birds and immediately remove and wash clothing that may be contaminated
- do not eat, drink or smoke when cleaning wild game birds
• wear dish gloves or latex gloves when handling or cleaning game
• wash gloves, hands, and clothing with soap and warm water or use an alcohol-based hand sanitizer immediately after you have finished. Thoroughly clean contaminated surfaces on tools and work surfaces with hot, soapy water and then disinfect the area using a household disinfectant
• keep young children away when cleaning game birds and discourage them from playing in areas that could be contaminated with wild bird droppings
• If you become ill while handling birds or shortly thereafter, see your doctor. Inform your doctor that you have been in contact with wild birds.

If you observe sick or dead birds and suspect that disease may be involved, contact your local or provincial wildlife authority or the Canadian Cooperative Wildlife Health Centre listed in the Need More Info section below.

Government of Canada’s Role
The Public Health Agency of Canada continues to monitor the domestic and global flu situation, and also coordinates national activities on the prevention and control of flu. Since the SARS outbreak in March 2003, the Public Health Agency of Canada has worked with many partners, including provincial and territorial health officials as well as national and international experts, to strengthen its capacity to respond to future outbreaks of infectious diseases. For example, PHAC has developed a new and comprehensive pandemic preparedness plan, which sets out standards and guidelines for such matters as local response, priority access to anti-viral drugs and the rapid production of new vaccine to protect Canadians.

Health Canada, the Public Health Agency of Canada and the Canadian Food Inspection Agency are working collaboratively in consultation with our international partners such as the World Health Organization and the European Centre for Disease Prevention and Control, to monitor the safety of poultry products as it relates to avian flu.

Health Canada regulates vaccines in Canada through a rigorous licensing process. This includes an extensive pre-market review of information about a vaccine's safety and effectiveness, and a lot release program which provides an additional check on biologic drugs to help assure their safety for human use. Within this role as a regulator, Health Canada plays an integral part in the Pandemic Vaccine Program, which aims to provide a safe and effective vaccine to all Canadians, as soon as possible, in the event of a pandemic outbreak. In addition, Health Canada continues to contribute to national pandemic...
preparedness by working with international players, other regulatory agencies, and vaccine manufacturers.

**Need More Info?**

For more information contact:

The Public Health Agency of Canada’s Avian Influenza Web site at:
www.phac-aspc.gc.ca/influenza/avian_e.html

You can also find detailed information about avian flu on the following Web sites:

The Public Health Agency of Canada’s Flu Watch at:
www.phac-aspc.gc.ca/fluwatch/index-eng.php

The Public Health Agency of Canada’s Immunizations and Vaccines section at:
www.phac-aspc.gc.ca/im/index-eng.php

The Public Health Agency of Canada’s Travel Health section at:

The Public Health Agency of Canada’s Infectious Diseases section at:
www.phac-aspc.gc.ca/id-mi/index-eng.php

The It’s Your Health article on the Flu at:
http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/flu-grippe_e.html

The Canadian Food Inspection Agency’s Avian Influenza section at:
www.inspection.gc.ca/english/animal/health/disemala/avflu/avflu.htm

The World Health Organization (WHO), Influenza section at:
www.who.int/csr/disease/influenza/en/

The Canadian Cooperative Wildlife Health Centre at:
wildlife1.usask.ca/en/aiv/index.php

For additional articles on health and safety issues go to the It’s Your Health Web section at:
www.healthcanada.gc.ca/iyh

You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245*