

## **The Facts About Disease and Pigeons...**

### **Introduction:**

Pigeons have been closely associated with mankind for many millennia, and are very well adapted for this association; both have obviously benefited greatly.

Pigeon physiology is so different from that of humans and that of mammals, that they share very few diseases in common. However, a few of possible concern are listed below.

Pigeons are not susceptible to most diseases as their metabolism is rapid and their body temperature exceeds 107 degrees. Therefore, they cannot host most virus' or transmit to other animals.

### **Avian Influenza**

The strains of Avian Influenza that are present in North American birds do not and cannot infect pigeons. This has been proven repeatedly experimentally in several laboratories; a few recent examples are referenced below (1, 2, 3). This includes all North American combinations of H-types and N-types, especially H5N1, H5N2 and all the H7 types as well.

In addition to this, two federal agencies (USDA; USF & WS) are actively monitoring both domestic poultry and wild birds for possible invasion of new strains.

#### **1) Susceptibility of Pigeons to Avian Influenza**

- B. Panigraphy, D.A. Senne, J.C. Pedersen, A.L. Shafer, J.E. Pearson, *Avian Diseases*, Vol. 40, No. 3 (July-Sept., 1996), pp. 600-604

#### **2) Pathogenicity of a Hong Kong-Origin H5N1 Highly Pathogenic Avian Influenza Virus for Emus, Gees, Ducks and Pigeons**

- Laura E. Leigh Perkins, David E. Swayne, *Avian Diseases*, Vol. 46, No. 1 (Jan.-March, 2002), pp. 53-63

#### **3) Comparative Susceptibility of Selected Avian and Mammalian Species to a Hong Kong-Origin H5N1 Highly Pathogenic Avian Influenza Virus**

- L.E.L. Perkins, D.E. Swayne, *Avian Diseases*, Vol. 47, Special Issue. Proceedings of the Fifth International Symposium on Avian Influenza (2003), pp. 956-967

### **West Nile Virus**

Pigeons are very poor hosts for West Nile virus. They do not generally show any signs of disease, only remain infected at a low level for a few days and are unable to transmit the virus to a mosquito, another bird or to a person.

*Officials at the Centers for Disease Control tested flocks of pigeons and challenged them.*

*It is now confirmed that pigeons are not a significant pool for the virus. As with Avian Influenza, they do not get it, shed it or transmit it, nor do they serve as a vector for the disease—for either humans or other animals.*

(Nick Komar-Centers for Disease Control, Ft. Collins, CO)

### **Newcastle Disease**

Newcastle Disease is caused by a Paramyxovirus, and can be a threat to the poultry industry. There are two general categories of Newcastle Disease: Exotic Newcastle, which is highly pathogenic, and the less pathogenic Newcastle. Highly pathogenic Exotic Newcastle is a significant threat to the poultry industry, and is eradicated rapidly and decisively by the USDA and state veterinary officials; hence it is quite rare, and its occurrence is an exceptional event. This type of Newcastle can cause disease in unvaccinated pigeons.

The less pathogenic strains of Newcastle are generally not hosted well by pigeons. Pigeons vaccinated for Pigeon Paramyxovirus, under the AU recommended biosecurity protocols, are generally resistant to these strains which occur in the poultry industry and wild birds.

### **Ornithosis (Chlamydia)**

The strains of Chlamydia that pigeons can host generally do not cause disease in humans.

There are two reasons for this: the pigeon strains are not pathogenic to humans; pigeons are extremely poor transmitters of Chlamydia to humans.

### **Paramyxovirus**

There is a strain of Paramyxovirus which does infect pigeons specifically; it is endemic in feral pigeons. Several vaccines are available which effectively protect pigeons from this disease; young pigeons are routinely vaccinated before training, and old birds are boosted annually as part of the AU recommended biosecurity protocols. Under normal field conditions, this strain of virus does not cause disease in domestic poultry.

### **Salmonella**

This bacteria is extremely variable, and has a wide host range which does include birds. By adhering to the standards of human and avian hygiene currently practiced in the U.S., as well as the biosecurity protocols recommended by the AU, a person can easily avoid becoming infected. Moreover, the strains of Salmonella that infect pigeons can be quite easily treated with antibiotics in the unlikely event of infection of either a human or a domestic animal.



**Blastomyces, Histoplasma** (the dimorphic fungi).

These fungi grow in nitrogen rich decaying organic matter, and have been associated with various settings, including wild bird roosts. Pigeons themselves cannot host, carry or shed these diseases, and neither can well maintained pigeon lofts.

It is important to note that proper loft management is essential to good health. Fanciers that are heavily involved with their flocks on a daily basis should always exercise care in hygiene. The American Racing Pigeon Union has developed basic Biosecurity protocols, which were reviewed and approved by the USDA.

According to the Centers for Disease Control, birds do not carry histoplasmosis and it is not 'caught' from another person. Infants, young children, and older persons, with chronic lung disease may be at increased risk for severe disease. Disseminated disease is more frequently seen in people with cancer, AIDS or other forms of immunosuppression.



American Racing Pigeon Union, Inc.  
PO Box 18465  
Oklahoma City, OK 73154-0465

The AU's biosecurity protocols were reviewed and approved by the USDA. Below are some of the basic protocols from the AU's recommended biosecurity protocols.

Basic sanitation practices for handling pigeons include:

- 1) Wash your hands before and after handling pigeons or pigeon equipment.
- 2) After visiting a pigeon loft or pigeon event, change and launder your clothes. Or wear coveralls to visit a loft or show, and launder them afterwards.
- 3) Pigeons are ideal for introducing children to the animal world; however such encounters should be closely supervised by their parents.

In consideration of data from the United States Communicable Disease Center and of research conducted pertaining to registered, pedigreed Homing Pigeons, we affirm that to our knowledge, the above Statement is true.

Paul Miller, DVM (PA)  
Roger Harlin, DVM (OK)  
Robert Lynch, Ph.D. (GA)  
Jim Vanderheid, DDS (CA)  
James Higgins, DVM (PA)  
Warren Shetrone, DVM (HI)  
John Kazmierczak, DVM (NJ)



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*Additionally, Warren Shetrone, DVM (HI) has been instrumental in assisting the AU Scientific Taskforce. He has worked diligently to ensure that solid science and data were fairly considered.*

# Pigeons And Avian Related Diseases

*(Not what you may think!)*

## An AU Research Update

**There are many misperceptions about the registered Homing Pigeon. *Learn the facts*, pigeons are an amazing part of our history and not associated with most diseases.**

**Having correct information is important. *Get the facts!***



**American Racing  
Pigeon Union**

P.O. Box 18465  
Oklahoma City, OK 73154-0465

Phone: 405-848-5801  
Fax: 405-848-5888  
[www.pigeon.org](http://www.pigeon.org)