





COMMONWEALTH OF KENTUCKY  
OFFICE OF THE FIRST LADY



*Jane Beshear*

Dear Fellow Equine Enthusiasts,

As a lifelong horseperson and First Lady of the Commonwealth, I understand how important horses are to the state of Kentucky. This is why I am proud to support Saddle Up SAFELY, a rider safety campaign sponsored by UK HealthCare, UK College of Agriculture and many other organizations. In addition to reducing the number and severity of riding injuries, it is also very important to understand how diseases of the horse can affect humans and how to prevent and respond to them. There are a number of safety steps outlined in this booklet that will help you keep yourself and your horse healthy. We have long been known as the “Horse Capital of the World” and to ensure we retain this title, we must focus on the health and welfare of the horse and rider. By working together, we can make a great sport safer!

Sincerely,

Jane Beshear

While it is rare for humans to contract a disease from a horse, it is possible. You should note that the symptoms of the diseases described in this booklet can mimic symptoms of other diseases common in people. Usually the only way to know whether you have a specific condition is through a laboratory test ordered by your doctor.



## A note from Dr. Roberta Dwyer

Do horses get rabies?

Can you get the flu from your horse?

What horse diseases can you catch?

Do you know the answers to these questions? With certainty?

Many people do not know that horses can contract rabies from a rabid animal bite and therefore be a threat to human health. Rabies is likely the most commonly known zoonotic disease, which is one that can be transmitted between animals and people. Other diseases common to horses and people may have the same name but are not transmissible (or zoonotic), such as influenza. The virus strain that infects horses does not infect people and vice versa!

Every horse person needs to know about zoonotic diseases for their own safety as well as that of their families and employees. These diseases, their clinical signs and common sense advice are discussed in this brochure. Your veterinarian is an important source of information about zoonotic diseases and is best equipped to advise you on routine equine vaccinations and preventive medicine.



Roberta M. Dwyer, DVM, MS, DACVPM  
Professor, Department of Veterinary Science  
UK College of Agriculture

## Salmonellosis

Salmonellosis is a disease caused by the bacteria *Salmonella*. Most often horses with salmonellosis have acute or chronic diarrhea, but they can also have localized infections in abscesses, joints, eyes and other areas. Wearing disposable gloves and washing hands after handling salmonellosis cases (or any animal with diarrhea) is especially important. Manure from horses with diarrhea should be composted or disposed of where humans and other horses cannot come in contact with it. Symptoms in humans include diarrhea, fever and abdominal cramping.



## Ringworm

Dermatophytosis (ringworm) is a common fungal skin infection of many animal species. In horses the problem is primarily caused by *Trichophyton equinum*. Horses show circular patches of hair loss with crusting and scaling of the skin. People become exposed by direct skin contact with infected horses or potentially through contact with contaminated equipment. The most common symptom is itchiness.



Courtesy Dr. Mariann Sloet

## Rabies

Rabies is a viral disease of mammals, including horses. This disease is transmitted to humans via the bite of a rabid animal or contact between the animal's saliva and open wounds or mucous membranes. Only 40-50 horses per year are confirmed as rabies-positive in the United States, but the disease is 100 percent fatal. While infected horses may show behavioral and neurologic changes, rabies is known as "the great imitator" because sometimes animals present with colic or lameness. However, any horse with rabies will usually die within 10 days of the onset of clinical signs. Horses become infected by getting bitten by another rabid animal such as a skunk, raccoon, bat, fox, etc. Rabies vaccination for all horses is recommended by the American Association of Equine Practitioners. In humans, symptoms develop one to three months after being bitten. Because of the seriousness of bacterial infections by animal bites, any human bitten by an animal should wash the wound and seek medical treatment. People who have been exposed to a rabid animal and receive immediate anti-rabies medical treatment have excellent outcomes.



## Anthrax

Anthrax is a bacterial disease that has caused sporadic animal disease outbreaks in the United States for many years. The bacterial spore can live in the soil for decades, and animals can become infected through ingestion, inhalation and other routes. Infected horses often become acutely ill and die. People can be exposed to anthrax through contact with an infected animal's hide, tissues or blood. Complete protective equipment – including skin, respiratory and eye protection – should be worn by veterinarians when examining a suspected anthrax case. Symptoms in people can range from blisters on the skin to vomiting blood, bloody diarrhea, stomach ache, flu-like symptoms or chest pain.



## Rain Rot

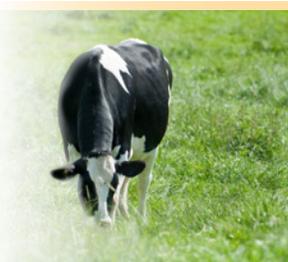
Dermatophilosis (rain rot) is a common bacterial skin disease in horses characterized by matted hair and skin lesions that ooze and form clumps. Although a rare zoonosis in healthy people, this disease can be transmitted to humans through direct contact with lesions. Symptoms are sores, usually on the hands and arms.



## Brucellosis

Brucellosis is a bacterial disease that causes abscesses and draining tracts on the withers (fistulous withers) and poll (poll evil) in horses and causes disease in many other animal species. People become infected by coming in contact with infected animals, especially cattle, although with aggressive control measures for brucellosis in the United States very few cases are reported in people.

Transmission of brucellosis from horses to humans is rare because the disease is very uncommon in horses. Symptoms include fever, headache, back pain and weakness.



## Leptospirosis

Leptospirosis is a bacterial disease that causes abortion, eye problems and kidney disease in horses. Transmission from horses to people is very rare in the United States but can occur through direct or indirect contact with infected urine, as well as ingestion of contaminated water. Symptoms include headache, fever, nausea, muscle aches and jaundice (yellow skin and eyes).



## Cryptosporidiosis

Cryptosporidiosis is a protozoal parasitic disease that sometimes causes diarrhea in foals, and can cause significant disease in other species. *Cryptosporidium* can infect many different animals and people through the fecal-oral route. Symptoms in humans include watery diarrhea, stomach cramps, nausea and a poor appetite.



## Vesicular Stomatitis

Vesicular stomatitis is a viral disease that causes blisters and ulceration on the tongue and gums and inflammation of the coronary band in horses. Humans with open wounds can potentially become infected by direct contact with the blisters, which are filled with virus. However, even during outbreaks of the disease, infection of veterinarians and laboratory workers is low. The most prominent symptom in humans is a rash.



## Preventing Disease

A veterinarian can develop a comprehensive program designed to help protect horses and people from infectious diseases and provide early diagnosis that can save horse owners a significant amount of money in the long run! Caretakers should use disposable gloves to handle and treat any sick horse and thoroughly wash their hands after treatments.



## **What About WNV, EEE and WEE?**

West Nile virus (WNV), eastern equine encephalitis (EEE) and western equine encephalitis (WEE) are all zoonotic diseases that can affect both humans and horses.

Mosquitoes transmit these viruses from an infected bird to a person or a horse. Infected humans and horses do not develop high enough viral levels in the blood to enable transmission of the disease to others. Therefore, these mosquito-borne diseases are zoonotic from birds to people and horses, not from horses to people! Vaccination against EEE, WEE and WNV is very effective in reducing outbreaks of these diseases in horses.



A disease is transmissible if the causative agent (bacteria, virus, fungus, parasite, etc.) can be spread from one animal to another. The most common means of zoonotic disease transmission are:

### **Direct Transmission**

- ingestion
- inhalation
- skin contact
- contact with mucous membranes or open wounds
- bites

### **Indirect Transmission**

Indirect transmission is accomplished by an insect vector (insect bite) or by contact with inanimate objects (e.g., touching towels or other items with fecal contamination, then eating lunch).



## Common Sense Precautions

- Consult your veterinarian to develop a comprehensive preventive medicine program, including vaccinations and biosecurity.
- Have a veterinarian evaluate sick horses, especially those with behavioral changes, including aggression.
- Isolate sick horses and take precautions by wearing protective clothing such as separate coveralls and disposable gloves and booties.
- Always avoid hand to mouth or nose contact when handling infectious horses.
- Wash hands thoroughly with soap and water after handling ill horses, especially those with diarrhea.
- Alcohol-based hand sanitizer gels ( $\geq 62\%$  ethyl alcohol) are very effective in killing many bacteria and viruses when used on hands that are not visibly soiled.
- If treating a horse with a potentially zoonotic disease, wear disposable gloves and thoroughly wash hands afterward. Consult a veterinarian for a diagnosis and recommendations.
- Always consult your physician if you have suspected exposure to a zoonotic disease or have any questions regarding its symptoms, diagnosis or treatment. Tell your physician about any animals you may have been around.
- Become educated on horse diseases, especially those common in your area.



**For more information, visit [saddleupSAFELY.org](http://saddleupSAFELY.org).**

## Immunocompromised Individuals and Family Members

People with challenged immune systems, whether by disease, medication or age, can be more susceptible to infectious disease agents in a horse's environment.

Immunocompromised people include:

- Cancer patients
- Organ transplant patients
- People taking immunosuppressive drugs
- Patients with HIV/AIDS or other infectious diseases that suppress the immune system
- Patients with chronic illnesses or conditions such as cystic fibrosis, diabetes mellitus, etc., that may render them more susceptible to infectious agents
- Children under the age of 5
- The elderly
- Pregnant women (fetal risk)



These individuals should speak with their physician about added precautions needed when anticipating direct contact with animals or their environments (i.e., barn, water source, etc.). In general, immunocompromised people should not work around sick animals, especially those with diarrhea. Avoid contact with feces or urine, and thoroughly wash hands after contact with animals and prior to eating, drinking, using tobacco products or applying cosmetics. Because of bacteria present in dusty horse environments, some people may be advised to wear an N95 mask to avoid exposure to bacteria and other disease-causing agents.

If a family member not exposed to horses is immunocompromised, the clothing and footwear of people working with horses should be left in a designated area, such as the entryway to the home. Disease-causing organisms on clothing can be a hazard to immunocompromised family members, therefore this clothing should be laundered separately and not handled by the patient. Horse equipment and other materials should be left outside of the home, and the horse handler should wash his or her hands before coming home.

## Resources

### Equine Infectious Diseases

Sellon, DC, Long, MT, eds. *Equine Infectious Diseases*. 2007. Elsevier, St. Louis, MO. This is the most comprehensive reference book on all equine infectious diseases, including public health impacts.

### The Center for Food Safety and Public Health

Contains information and photographs on zoonotic diseases and foreign animal diseases of many animal species.  
[www.cfsph.iastate.edu](http://www.cfsph.iastate.edu)

### World Health Organization

Offers a Web site with fact sheets and additional information about zoonosis and current outbreak updates.  
[www.who.int/en](http://www.who.int/en)

### American Association of Equine Practitioners

Dedicated to improving the health and welfare of the horse, the AAEP provides research, training and education for veterinarians and horse owners. Vaccination guidelines are available.  
[www.aaep.org](http://www.aaep.org)



For more tips, information,  
and donor opportunities,  
visit our Web site at  
[saddleupSAFELY.org](http://saddleupSAFELY.org).

### Official equine higher education program for the 2010 Alltech FEI World Equestrian Games

More than 50 faculty and staff  
across nine College of Agriculture  
departments currently conduct  
equine work at UK.



# HORSE RIDER SAFETY CAMPAIGN

*Together, through increased awareness and education,*

## PARTNERS



### Alltech

*Alltech, a leading global animal health and nutrition company based in Kentucky, is the first-ever title sponsor of the FEI World Equestrian Games.*



### Alltech FEI World Equestrian Games

*The world championships of eight equestrian disciplines held every four years.*



### Buffalo Trace Mounted Patrol

*Volunteer Patrol members have provided equine education and assistance to the local community, emergency management personnel and government agencies since 2008.*



### Certified Horsemanship Association

*CHA certifies instructors and trail guides, accredits equestrian facilities, publishes educational manuals, and hosts regional and international conferences.*



### Jockeys' Guild

*The Jockeys' Guild protects the welfare of all riders across the United States.*



### Keeneland

*Keeneland has been investing in the future of the Thoroughbred industry since 1936.*



Kentucky Public Health  
Prevent. Promote. Protect.

### Kentucky Department of Public Health

*Helping people be well through prevention, promotion and preparation.*



### Kentucky Horse Council

*The Kentucky Horse Council is a nonprofit organization dedicated, through education, to the protection, growth and development of the equine industry in Kentucky.*



### Kentucky Horse Park

*An educational theme park dedicated to the horse. Home to the 2010 Alltech FEI World Equestrian Games.*



### Lexington Herald-Leader

*The Herald-Leader and Kentucky.com are the No. 1 source for news, sports, advertising, and entertainment information in Central and Eastern Kentucky.*

# SPONSORING ORGANIZATIONS

*we can make a great sport safer and more enjoyable.*



## **TheHorse.com**

*TheHorse.com is a multimedia education provider to hands-on participants in the equine industry.*



## **Kentucky Injury Prevention and Research Center**

*KIPRC works to reduce injury through education, policy initiatives, public health programming, surveillance, risk factor analysis, direct interventions and evaluation.*



## **The Lane Report**

*For 25 years, The Lane Report has compiled valuable business news, economic data, and opinion for use by Kentucky's business, professional and political leaders.*



## **UK College of Agriculture Equine Initiative**

*The equine initiative's mission is to discover, share and apply new knowledge that will enhance the health, performance and management of horses commensurate with the signature status of Kentucky's equine industry.*



## **UK College of Public Health**

*Providing comprehensive public health approaches to better understand and to help reduce the burdens of public health problems on individuals, families and communities.*



## **UK HealthCare**

*Providing the most advanced medical care to the people of Kentucky and the region. UK HealthCare is the official medical provider for the 2010 Alltech FEI World Equestrian Games.*



## **UK Spinal Cord and Brain Injury Research Center (SCoBIRC)**

*Discovering pharmacological, gene or cellular therapies to minimize damage and promote repair mechanisms in the nervous system following spinal cord or brain injury.*



## S U P P O R T E R S

*Special thanks to Ariat, Brain Injury Alliance of Kentucky, Kentucky Horseshoeing School, Northern Kentucky Horse Network, North American Racing Academy, Rood & Riddle Equine Hospital, PHI, United States Dressage Federation, and Welch Printing Company.*

## Ways to get more involved with Saddle Up SAFELY

The Saddle Up SAFELY program can arrange for speakers to address your organization about horseback riding safety issues. Call **859-323-5508** to schedule one of our speakers for your event.

Read Dr. Fernanda C. Camargo's horseback riding safety blog by following the link at **[saddleupSAFELY.org](http://saddleupSAFELY.org)**.



Suggestions or comments may be directed to **859-323-5508**.

To make a donation to the Saddle Up SAFELY program, please call **859-323-8587** or write to:

Saddle Up SAFELY  
UK HealthCare  
2347 Sterlington Road, Suite 110  
Lexington KY 40517

If you have caught a disease from your horse, tell us what advice you can share with others to prevent or recover more quickly from it by going to **[saddleupSAFELY.org](http://saddleupSAFELY.org)** and using the advice/tip registry.

Those who provide advice that is used will be eligible to win four tickets to the 2010 Alltech FEI World Equestrian Games, one of a number of gifts including \$150 gift certificates for Ariat merchandise, four reserved seats to a Keeneland race, tickets to the Kentucky Horse Park, and more.



Request our booklet *Horseback Riding Safety* by phone or through our Web site.

*Information in this booklet developed by*

University of Kentucky

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UK HealthCare

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UK College of Agriculture  
Equine Initiative

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UK College of Public Health



**saddleupSAFELY.org**