

IS YOUR HORSE AT RISK FOR LEPTOSPIROSIS?

If you answer yes to any of these questions, ask your veterinarian about leptospirosis.

- | YES | NO | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Do your horses have access to standing water or ponds? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there skunks, raccoons or other wildlife in your horse pastures? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you keep feed/hay in open containers or feed on the ground? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you own Appaloosa, Draft or Warmblood breeds? |
| <input type="checkbox"/> | <input type="checkbox"/> | Have any horses on the property lost their eyesight or been diagnosed with equine recurrent uveitis (ERU)? |
| <input type="checkbox"/> | <input type="checkbox"/> | Have any of your horses experienced abortions? |
| <input type="checkbox"/> | <input type="checkbox"/> | Have any of your horses had kidney disease? |

TO LEARN MORE ABOUT HOW LEPTO EQ INNOVATOR® CAN HELP PROTECT YOUR HORSES, TALK TO YOUR VETERINARIAN OR VISIT **LEPTOEQINNOVATOR.COM**.

Lepto EQ Innovator®

References:

- 1 Carter CN, Cohen N, Steinman MN, Smith JL, Erol E, Brown S. Seroepidemiology of equine leptospirosis utilizing diagnostic laboratory specimens from 29 states (US) and one Canadian province, in *Proceedings*. 55th Annu AAVLD Meet 2012;51.
- 2 Data on file, Study Report No. Restricted Grant-FLEPT013 (v1.0) TI-01366, Zoetis LLC.
- 3 Divers TJ, Chang Y-F. Leptospirosis. In: Robinson NE, Sprayberry KA, eds. *Current Therapy in Equine Medicine*. Vol 6. 6th ed. St. Louis, MO: Saunders Elsevier, 2009:145-147.
- 4 Polle F, Storey E, Eades S, et al. Role of intraocular *Leptospira* infections in the pathogenesis of equine recurrent uveitis in the southern United States. *J Equine Vet Sci*. 2014;34(11-12):1300-1306.
- 5 Borstel MV, Oey L, Strutzberg-Minder K, Boeve MH, Ohnesorge B. Direkter und indirekter Nachweis von Leptospiren aus Glaskörperproben von Pferden mit ERU. *Pferdeheilkunde*. 2010;2(März/April):219-225.
- 6 Divers TJ. Equine leptospirosis (Proceedings). <http://veterinarycalendar.dvm360.com/equine-leptospirosis-proceedings>. Accessed August 24, 2016.
- 7 Divers TJ, Byars TD, Shin SJ. Renal dysfunction associated with infection of *Leptospira interrogans* in a horse. *J Am Vet Med Assoc*. 1992;201(9):1391-1392.
- 8 Frelstedt L, Slovis NM. Acute renal disease from *Leptospira interrogans* in three yearlings from the same farm. *Equine Vet Educ*. 2009;21(9):478-484.
- 9 Timoney JF, Kalimuthusamy N, Velineni S, Donahue JM, Artiushin SC, Fettingner M. A unique genotype of *Leptospira interrogans* serovar Pomona type kennewicki is associated with equine abortion. *Vet Microbiol*. 2011;150(3-4):349-353.
- 10 Levett PN. Leptospirosis. *Clin Microbiol Rev*. 2001;14(2):296-326.
- 11 Spickler AR, Leedom Larson KR. Leptospirosis. <http://www.cfsph.iastate.edu/DiseaseInfo/factsheets.php>. Updated August 2013. Accessed August 24, 2016.
- 12 Gerding JC, Gilger BC. Prognosis and impact of equine recurrent uveitis. *Equine Vet J*. 2016;48(3):290-298. doi: 10.1111/evj.12451.
- 13 Dwyer AE, Crockett RS, Kalsow CM. Association of leptospiral seroreactivity and breed with uveitis and blindness in horses: 372 cases (1986-1993). *J Am Vet Med Assoc*. 1995;207(10):1327-1331.
- 14 Data on file, Study Report No. B951R-US-13-046, Zoetis LLC.
- 15 Data on file, Study Report No. B951R-US-13-043, Zoetis LLC.
- 16 Data on file, Study Report No. B850-US-12-011, Zoetis LLC.
- 17 Data on file, Study Report No. B951R-US-15-092, Zoetis LLC.

All trademarks are the property of Zoetis Services LLC or a related company or a licensor unless otherwise noted.

© 2016 Zoetis Services LLC. All rights reserved. LEI-00002

zoetis

Lepto EQ Innovator®

KEEP YOUR HORSE IN THE PICTURE.



WHAT IS LEPTOSPIROSIS?

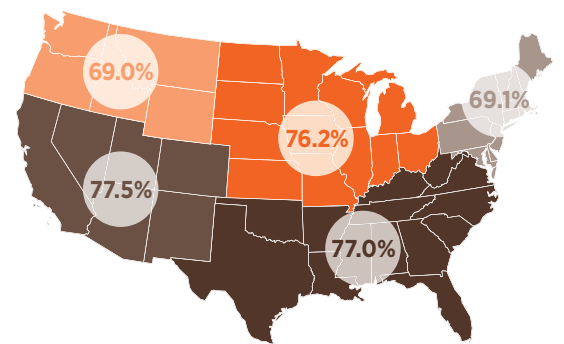
This serious and costly equine infection is caused by leptospire, a type of spiral-shaped bacteria. Because leptospirosis can be difficult to diagnose, the disease may go undetected.

HORSES NATIONWIDE MAY BE AT RISK.

Studies show that horses have been exposed to one or more types of leptospire in numerous states across the country.^{1,2} In a 2014 study, 75% of healthy horses in 18 states tested positive for at least one type of leptospire.²

REGIONAL SEROPREVALENCE

- Northeast — 69.1%
- South — 77.0%
- Midwest — 76.2%
- Pacific Northwest — 69.0%
- Southwest — 77.5%



zoetis

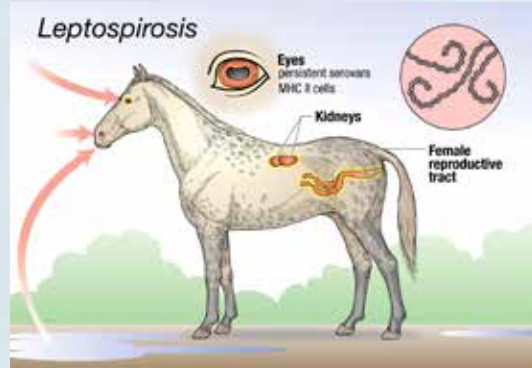
LEPTOSPIROSIS CAN CAUSE SERIOUS DISEASE.

The specific bacterium most likely to affect horses is *Leptospira interrogans* serovar Pomona.³ Infection can cause uveitis, or moon blindness (the most common cause of blindness in horses), as well as abortions and kidney failure.

- It's been estimated that up to 70% of all uveitis cases are associated with leptospires.^{4,5}
- Abortions caused by leptospires tend to happen late in pregnancy.³
- Acute kidney failure, especially in yearlings, can occur when kidneys are infected with leptospires.⁶⁻⁸

HOW ARE HORSES INFECTED?

The bacteria penetrate the mucous membranes of the eyes or mouth, or enter through skin abrasions. Once in the bloodstream, leptospires can concentrate in the kidneys and cause serious medical problems.



Divers TJ. Leptospirosis. In Sprayberry KA, ed. *Current Therapy in Equine Medicine*. 7th ed. St. Louis, MO: Saunders Elsevier, 2015:179.

WHAT ARE THE RISK FACTORS?

Horses are generally exposed to the bacteria in urine from infected animals, such as skunks, white-tailed deer, raccoons and opossums.⁹ Infected urine is often found in stagnant or slow-moving water or in contaminated soil, bedding, feed or drinking water.^{10,11}

Genetics may play a role, too: Appaloosa, Draft and Warmblood breeds are more frequently and severely affected by *Leptospira*-associated uveitis than other breeds.^{12,13}

HELP PROTECT YOUR HORSE WITH NEW LEPTO EQ INNOVATOR®.

It's the first and only vaccine developed specifically to help prevent leptospirosis in horses, and it contains *L. pomona*, the bacterium most frequently associated with disease in horses. LEPTO EQ INNOVATOR helps prevent infections of the blood caused by *L. pomona*, which could, but has not been demonstrated to, help reduce the potential risk of equine recurrent uveitis infections, abortions and acute renal failure caused by *L. pomona*.*

The vaccine has been shown to be safe and effective in safety and efficacy trials, and has been tested in hundreds of horses.¹⁴⁻¹⁶ LEPTO EQ INNOVATOR is USDA-licensed for use in pregnant mares for all trimesters of pregnancy. Field safety studies examined the vaccine when used in 457 pregnant mares across the first, second and third trimesters and showed no systemic or local reactions were attributed to vaccine administration.¹⁴⁻¹⁷

*Currently, there are no vaccines available with USDA-licensed label claims against equine abortions, uveitis or acute renal failure due to *L. pomona*.

