

Why Is It Important to Vaccinate My Horse?

Vaccines may be one of the first things horse owners begin to question when economic times are tough and they are faced with decisions about what's critical to their horses' care. In reality, vaccinating your horse now against potentially life-threatening disease is actually more cost effective – as the expense of supportive care can add up quickly. Horse owners may very well spend thousands of dollars to treat and support an affected horse. For West Nile virus (WNV) alone, supportive care can be 45 times more expensive than simply vaccinating your horse.¹

“Horse owners may believe that West Nile virus is no longer a threat, that Eastern equine encephalomyelitis (EEE) only strikes horses in the south or that it's been years since they've heard of a case of equine rabies in the area, so why vaccinate,” says April Knudson, DVM, equine specialist for Merial's Large Animal Veterinary Services. “In fact, this year there have been numerous cases of EEE reported in Michigan^{2,3,4}, reports of WNV across the country^{5,6,7,8,9,10} and an increase in rabies cases in Colorado^{11,12,13}. And while there are many steps you can take to protect the well being of your horse, vaccination should be a critical component of your equine health care program.”

The American Association of Equine Practitioners (AAEP) recommends all horses in the United States be vaccinated against core diseases, including WNV, EEE, Western equine encephalomyelitis (WEE), tetanus and rabies.¹⁴ And if you travel with your horse or there is a disease threat in your area, there are other non-core vaccines that may be needed to protect your horse's health, including equine influenza and Potomac horse fever (PHF).¹⁴

“Annual vaccinations – for both core and non-core disease concerns – are the best way to help prevent potentially deadly equine diseases and help keep horses healthy. While there is a cost associated with vaccination, preventive care is much more cost effective than the care required to treat a horse. And it's important to remember that even with treatment, some horses don't survive or their long-term health may be significantly impacted by disease.”

- EEE is a viral disease that affects the central nervous system of horses, humans and birds. Once a horse becomes infected with the EEE virus and develops neurologic signs, the disease is fatal in approximately 90 percent of cases.¹⁵
- The deadly threat of rabies isn't going away. In fact, the 2008 American Association of Equine Practitioners Guidelines for the Vaccination of Horses define rabies as a core vaccination because of the potential public health significance of the disease.¹⁶ Every case of rabies represents a death sentence for the infected horse¹⁷ – and a risk of infection for other horses, as well as humans.¹⁷
- In some cases, horses can't help but be exposed to disease. For example, tetanus is caused by bacteria from everyday manure, dirt or rust contaminating a puncture wound, and is fatal in at least 50 percent of the cases.¹⁸
- WNV is a costly and deadly disease that attacks the central nervous system of infected horses. Thanks in part to vaccination, the incidence of WNV has dropped from more than 15,000 equine cases in 2002 to 276 reported cases in 2009.¹⁹ Despite the decrease in the number of cases, the risk for horses throughout the country continues.²⁰

Diseases, such as PHF and equine influenza, should also be considered when making decisions about vaccination. The use of these risk-based vaccines may vary regionally, from population to population within an area, or between individual horses within a given population.

- PHF is a potentially deadly disease that can cause mild depression, anorexia, diarrhea,²¹ abortion in pregnant mares, toxemia and laminitis.²² Any horse that comes in contact with infected caddisflies or mayflies can contract PHF.²³
- Equine influenza is transmitted through infected horses, contaminated inanimate objects and people moving between infected and uninfected horses,²⁴ and is one of the leading causes of respiratory disease in horses.²⁵

“Because of the efficacy and widespread availability of equine vaccines, the incidence of many diseases has decreased,” says Dr. Knudson. “This decline, however, doesn't mean we can become complacent about vaccination. It's the exact opposite. We must continue to vaccinate appropriately to help maintain the health of our horse population and minimize the spread of disease.”

“Veterinarians are the best source for quality vaccines and vaccine information, and checking in a couple of times a year helps make sure your horse is healthy year-round,” says Dr. Knudson. “A good rule of thumb is to communicate

with your veterinarian at least twice a year – usually in the spring and fall – to identify the area’s disease threats, assess your horse’s level of risk and discuss potential travel plans – all of which will help enable you and your veterinarian develop a vaccination program that specifically addresses the needs of your horse.”

Horse owners should demand effective vaccines for their horses. Today’s advanced vaccine technology provides new choices for vaccination and helps protect horses. For instance, the RECOMBITEK® line of equine vaccines includes advanced recombinant canarypox-vectored vaccine technology to aid in the prevention of WNV and equine influenza, in addition to a new combination vaccine featuring recombinant WNV with EEE, WEE and tetanus. Merial also provides leading equine vaccines such as IMRAB® rabies vaccine and POTOMAVAC™ vaccine for PHF.

® RECOMBITEK and IMRAB are registered trademarks, and ™ POTOMAVAC is a trademark, of Merial Limited. ©2010 Merial Limited, Duluth, GA. All rights reserved. EQUIBGN1010 (09/10)

¹ Gardner I, et al. Incidence and effects of West Nile virus infection in vaccinated and unvaccinated horses in California. *Vet Res* 2007;38(1):109-116.

² Parker, R. Economic woes exacerbate Eastern Equine Encephalitis outbreak in Southwest Michigan. Available at: http://blog.mlive.com/kqazette_impact/print.html?entry=2010/08/economic_woes_exacer... Accessed August 2, 2010.

³ Blevins, J. High mosquito activity causes rise of EEE in SW Mich. Available at: <http://www.wndu.com/localnews/headlines/100666959.html>. Accessed August 17, 2010.

⁴ Equine encephalitis outbreak worst in 30 years. Available at: <http://www.wvmt.com/common/printer/view.php?db=wwwmt&id=1380153>. Accessed August 13, 2010.

⁵ Calif. horse owners urged to protect animals from West Nile virus. Available at: <http://www.bizjournals.com/sacramento/stories/2010/08/09/daily50.html?t=printable>. Accessed August 13, 2010.

⁶ Kentucky Office of the State Veterinarian. Kentucky Department of Agriculture Web site. Available at: <http://www.kentuckyhorse.org/en/articles/printpreview.asp?1543>. Accessed October 28, 2010.

⁷ Arszman, M. WNV: Second Kentucky Horse Confirmed, Euthanized. Available at: <http://www.thehorse.com/Print.aspx?ID=16934>. Accessed October 28, 2010.

⁸ Keeping, J. Dexter horse tests positive for West Nile virus, the first confirmed equine case in Michigan. Available at: <http://www.annarbor.com/news/dexter-horse-tests-positive-for-west-nile-virus-the-first-confir...> Accessed October 28, 2010.

⁹ Hatfield, P. Warning: Cases of Eastern equine encephalitis and West Nile virus are on the rise. Available at: <http://beacononlinenews.com/news/daily/2842>. Accessed October 28, 2010.

¹⁰ West Nile virus, Eastern Equine Encephalitis, and Western Equine Encephalitis State Summary Report. United States Department of Agriculture Web site. Available at: http://nsu.aphis.usda.gov/nahss_web/arbovirus_summary.faces. Accessed October 28, 2010.

¹¹ Fryar, J. Rabies Vaccine may be advised for Colo. horses. Available at: <http://www.timescall.com/print.asp?ID=21813>. Accessed October 28, 2010.

¹² Landolt, GA. Veterinarians recommend rabies vaccinations for horses. Available at: http://www.northfortynews.com/News/20101116_HA_rabiesVaccinationsHorses.htm. Accessed October 28, 2010.

¹³ Page, B. Equine Rabies: Should You Be Concerned? Available at: <http://www.thehorse.com/Print.aspx?ID=16392>. Accessed October 28, 2010.

¹⁴ Guidelines for Vaccination of Horses. American Association of Equine Practitioners. Available at: http://www.aaep.org/vaccination_guidelines.htm. Accessed July 12, 2010.

¹⁵ Eastern Equine Encephalitis, Division of Animal Industry – FDACS. Available at: <http://www.doacs.state.fl.us/ai/main/eee.shtml>. Accessed July 12, 2010.

¹⁶ Guidelines for the vaccination of horses: Rabies. American Association of Equine Practitioners. Available at: http://www.aaep.org/core_vaccinations.htm. Accessed June 11, 2009.

¹⁷ Michigan State University College of Veterinary Medicine online publication January 2004. Available at: <http://old.cvm.msu.edu/extension/equine/RabiesinHorses.pdf>. Accessed June 11, 2009.

¹⁸ MacKay RJ. Tetanus. In: Sellon DC and Long MT, ed. *Equine Infectious Diseases*. St. Louis, Mo.: Saunders; 2007:376-380.

¹⁹ United States Department of Agriculture Animal and Health Plant Inspection Service. Available at: http://www.aphis.usda.gov/vs/nahss/equine/wnv/wnv_distribution_maps.htm. Accessed July 12, 2010.

²⁰ Guidelines for the vaccination of horses: West Nile virus. American Association of Equine Practitioners. Available at: <http://www.aaep.org/wnv.htm>. Accessed January 26, 2009.

²¹ Pusterla N and Madigan JE. *Neorickettsia risticii*. In: Sellon DC and Long MT, ed. *Emerging Infectious Diseases*. St. Louis, Mo.: Saunders; 2007:357-362.

²² *Merck Veterinary Manual*. Ninth edition. 2005:236-237.

²³ Madigan JE and Pusterla N. Life cycle of Potomac horse fever — implications for diagnosis, treatment and control: a review. *AAEP Proceedings* 2005;51:158-162.

²⁴ Influenza updates from the AVMA. Background: Equine influenza. Available at: http://www.avma.org/public_health/influenza/equine_bgnd.asp. Accessed January 15, 2009.

²⁵ Paillot R, Hannant D, Kydd JH, Daly, JM. Vaccination against equine influenza: Quid novi? *Vaccine* 2006;24:4047-4061.