Ask the Vet
April 2013

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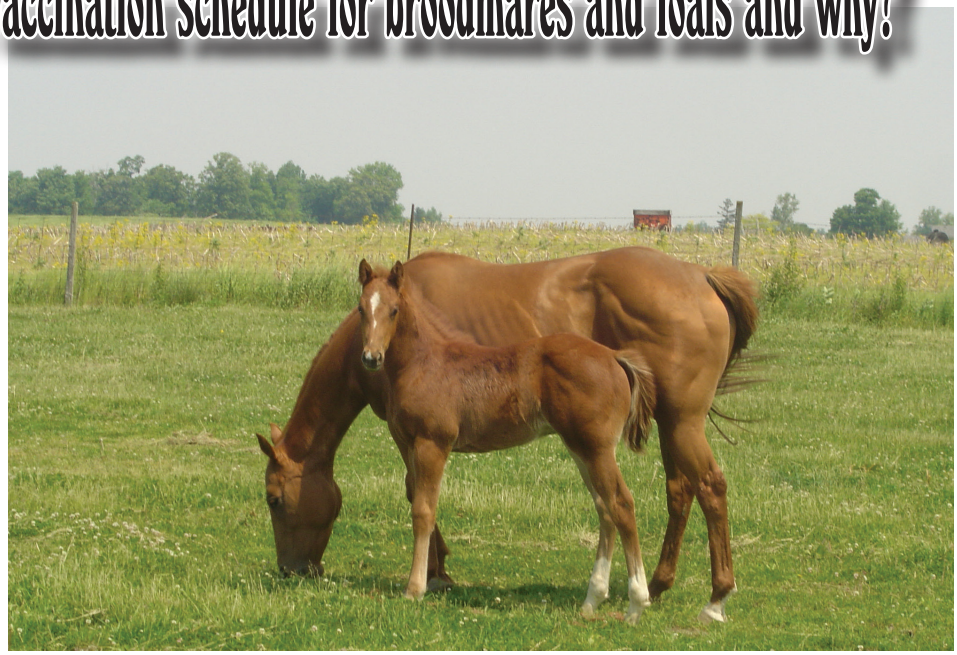
Ask the Vet with Dr. Steve Fisch, DVM

What is the recommended vaccination schedule for broodmares and foals and why?



To answer that question I am going to give you some information compiled by the American Association of Equine Practitioners.

Why do we vaccinate broodmares? It all has to do with passive transfer of maternal antibodies which basically means the foals gets immunity to disease from its mother's colostrum. The AAEP provides this information:

It is important to vaccinate broodmares 4 to 6 weeks before foaling for their own protection, as well as to maximize concentrations of immunoglobulins in their colostrum to be passively transferred to their foals. The significant majority of vaccines used in broodmares during late gestation to maximize immunoglobulin transfer via the colostrum do not carry a "safe for use in pregnant mare" claim. However, this is an accepted practice and clinical experience indicates these products are safe for this purpose, but if the practitioner has specific safety questions or concerns, he or she is encouraged to contact he manufacturer for additional information.

Recognize that simply vaccinating the mare is not sufficient for protection of the foal; successful passive transfer must also occur. The foal must receive adequate amounts of high quality colostrum and absorb adequate amounts of specific colostral immunoglobulins before absorption of macromolecules ceases (generally 24 to 48 hours). Specific colostral immunoglobulins provide protection against field infections for several months but also may interfere with vaccinal antigens and may interfere with foal responses to vaccines; a phenomenon termed "maternal antibody interference."

Although protective concentrations of maternal antibody decline with time, vaccination of a foal while these colostral antibodies are present - even at concentrations less than those considered to be protective - is often of minimal value because of maternal antibody interference. Consequently, a foal may be susceptible to infection before the primary vaccinal series is completed. Management directed at minimizing exposure to infectious agents is key during this interval.

Foals with residual maternal antibodies generally produce a greater serologic response to killed vaccines when an initial series of three doses is administered rather than the 2-dose series recommended by most manufacturers of vaccines for older horses without residual maternal antibodies.

The best source of information regarding your vaccination program is your local equine veterinarian.

We have included a schedule below and on the following pages. It is a suggested vaccination schedule provided by the American Association of Equine Practitioners, and is based on generally accepted veterinary practices. These guidelines are neither regulations nor directives for all situations and should not be interpreted as such. It is the responsibility of attending veterinarians, through an appropriate veterinarian-client-patient relationship, to utilize this information coupled with available products to determine the best professional care for their patients. For complete discussion of vaccination guidelines, please see the AAEP resource guide " Guidelines for Vaccination of Horses." The schedule can be found at: http://www.aaep.org/pdfs/AAEP_vacc_guide.pdf and is printed courtesy of AAEP.

Ask The Vet

We would like to help you get your horse health questions answered by a knowledgeable equine veterinarian.
Submit your questions to us via email, we will present them to a qualified veteranarian that specialize in equine health and then publish the question along with the vet's response in a future issue of The Horse Resource.
Ask away..... Send questions to us at:
thehorseresource@msn.com Subject line: "Ask the Vet"

AAEP Guidelines for Vaccination of Horses

The schedule below is a suggested vaccination schedule provided by the American Association of Equine Practitioners, and is based on generally accepted veterinary practices. These guidelines are neither regulations nor directives for all situations and should not be interpreted as such. It is the responsibility of attending veterinarians, through an appropriate veterinarian-client-patient relationship, to utilize this information coupled with available products to determine the best professional care for their patients. For complete discussion of vaccination guidelines, please see the AAEP resource guide " Guidelines for Vaccination of Horses."

Disease/vaccine	Foals/weanlings	Yearlings	Performance Horses	Pleasure Horses	Broodmares	Comments
West Nile Virus	First dose: 3 to 4 months. Second dose: 1 month later (plus 3rd dose at 6 months in endemic areas).	Annual booster, prior to expected risk. Vaccinate semi-annually or more frequently (every 4 months), depending on risk.	Annual booster, prior to expected risk. Vaccinate semi-annually or more frequently (every 4 months), depending on risk.	Annual booster, prior to expected risk. Vaccinate semi-annually or more frequently (every 4 months), depending on risk.	Annual, 4 to 6 weeks prepartum (see full text in guidelines).	Annual booster is after primary series. In endemic areas, booster as required or warranted due to local conditions conducive to disease risk. Vaccinate semi-annually or more frequently (every 4 months), depending on risk.
Tetanus toxoid	**From nonvaccinated mare:** First dose: 3 to 4 months Second dose: 4 to 5 months **From vaccinated mare**: First dose: 6 months Second dose: 7 months Third dose: 8 to 9 months	Annual	Annual	Annual	Annual, 4 to 6 weeks prepartum	Booster at time of penetrating injury or surgery if last dose not administered within 6 months
Encephalomyelitis **(EEE, WEE, VEE)**	**EEE: (in high-risk areas)** First dose: 3 to 4 months Second dose: 4 to 5 months Third dose: 5 to 6 months **WEE, EEE (in low-risk areas) and VEE:** From nonvaccinated mare: First dose: 3 to 4 months Second dose: 4 to 5 months Third dose: 5 to 6 months From vaccinated mare: First dose: 6 months Second dose: 7 months Third dose: 8 months	Annual, spring Annual, spring	Annual, spring Annual, spring	Annual, spring Annual, spring	Annual, 4 to 6 weeks prepartum Annual, 4 to 6 weeks prepartum	In endemic areas booster EEE and WEE every 6 months; VEE only needed when threat of exposure; VEE may only be available as a combination vaccine with EEE and WEE.

The schedule can be found at: http://www.aaep.org/pdfs/AAEP_vacc_guide.pdf and is printed courtesy of AAEP.

Influenza	**Inactivated injectable:** From nonvaccinated mare: First dose: 6 months Second dose: 7 months Third dose: 8 months Then at 3-month intervals From vaccinated mare: First dose: 9 months Second dose: 10 months Third dose: 11 to 12 months Then at 3-month intervals **Intranasal modified live virus**: First dose: 11 months; has been safely administered to foals less than 11 months - see comments	Every 3 to 4 months Every 6 months	Every 3 to 4 months Every 6 months	Annual with added boosters prior to likely exposure, Every 6 months	At least semiannual, with 1 booster 4 to 6 weeks prepartum, Annual before breeding (see comments)	A series of at least 3 doses is recommended for primary immunization of foals. Not recommended for pregnant mares until data available. Use inactivated vaccine for prepartum booster. If first dose is administered to foals less than 11 months of age, administer 2nd dose at or after 11 months of age.
Rhinopneumonitis (EHV-1 and EHV-4)	First dose: 4 to 6 months Second dose: 5 to 7 months Third dose: 6 to 8 months Then at 3-month intervals	Booster every 3 to 4 months up to annually	Booster every 3 to 4 months up to annually	Optional: semiannual if elected	Fifth, seventh, ninth month of gestation (inactivated EHV-1 vaccine); optional dose at third month of gestation	Vaccination of mares before breeding and 4 to 6 weeks prepartum is suggested. Breeding stallions should be vaccinated before the breeding season and semiannually
Strangles	**Injectable:** First dose: 4 to 6 months Second dose: 5 to 7 months Third dose: 7 to 8 months (depending on the product used) Fourth dose: 12 months **Intranasal:** First dose: 6 to 9 months Second dose: 3 weeks later	Semi-annual	Optional: semi-annual if risk is high	Optional: semi-annual if risk is high	Semi-annual with 1 dose of inactivated M-protein vaccine 4 to 6 weeks prepartum	Vaccines containing M-protein extract may be less reactive than whole-cell vaccines. Use when endemic conditions exist or risk is high. Foals as young as 6 weeks-of-age may safely receive the intranasal product. A third dose should be administered 2 to 4 weeks prior to weaning.
Rabies	Foals born to non-vaccinated mares: First dose: 3 to 4 months Second dose: 12 months Foals born to vaccinated mares: First dose: 6 months Second dose 7 months Third dose: 12 months	Annual	Annual	Annual	Annual, before breeding	Vaccination recommended in endemic areas. Do not use modified-live-virus vaccines in horses.
Potomac Horse Fever	First dose: 5 to 6 months Second dose: 6 to 7 months	Semi-annual	Semi-annual	Semi-annual	Semi-annual with 1 dose 4 to 6 weeks prepartum	Booster during May to June in endemic areas.

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Botulism	Foal from vaccinated mare: 3 dose series of toxoid at 30-day intervals starting at 2 to 3 months-of-age Foal from non-vaccinated mare: see comments	Consult your veterinarian	Consult your veterinarian	Consult your veterinarian	Initial 3-dose series at 30-day intervals with last dose 4 to 6 weeks prepartum. Annually thereafter, 4 to 6 weeks prepartum	Only in endemic areas. A third dose administered 4 to 6 weeks after the second dose may improve the response of foals to primary immunization. Foal from non-vaccinated mare may benefit from: 1) toxoid at 2,4 and 8 weeks-of-age; 2) transfusion of plasma from vaccinated horse; or 3) antitoxin. Efficacy needs further study.
Equine Viral Arteritis	Intact colts intended to be breeding stallions: One dose at 6 to 12 months-of-age	Annual for colts intended to be breeding stallions	Annual for colts intended to be breeding stallions	Annual for colts intended to be breeding stallions	Annual for seronegative, open mares before breeding to carrier stallions; isolate mares for 21 days after breeding to carrier stallion	Annual for breeding stallions and teasers, 28 days before start of breeding season; virus may be shed in semen for up to 21 days. Vaccinated mares do not develop clinical signs even though they become transiently infected and may shed virus for a short time.
Rotavirus A	Little value to vaccinate foal because insufficient time to develop antibodies to protect during susceptible age	Not applicable	Not applicable	Not applicable	Vaccinate mares at 8, 9 and 10 months of gestation, each pregnancy. Passive transfer of colostral antibodies aid in prevention of rotaviral diarrhea in foals.	Check concentrations of immunoglobulins in foal to be assured that there is no failure of passive transfer.

*As with administration of all medications, the label and product insert should be read before administration of all vaccines.

Schedules for stallions should be consistent with the vaccination program of the adult horse population on the farm and modified according to risk.

EEE=eastern equine encephalomyelitis, WEE=western equine encephalomyelitis, VEE=Venezuelan equine encephalomyelitis; EHV-1=equine herpes virus type;

keywords: Vaccination .
posted: 6/18/2002. Last updated: 1/13/2005.

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