Approximately 9 out of 10 racehorses get stomach ulcers:

Stomach ulcers are quite common in horses:

- Up to 93% of racehorses get stomach ulcers, regardless of age.\textsuperscript{1,2}
- Almost 60% of other performance horses have ulcers.\textsuperscript{1,3}
- Up to 57% of foals have stomach ulcers, particularly during the first several months of life.\textsuperscript{4-6}
- 50% of horses with ulcers show no outward signs of gastrointestinal disease.\textsuperscript{1}

Views inside a healthy horse stomach (l), and a horse in training with ulcers (r). (Photos courtesy of MJ Murray.)

Stomach ulcers in horses are increasingly recognized as a major problem in adult horses as well as foals.\textsuperscript{7} Even when there are no obvious signs of stomach ulcers, they can interfere with performance by affecting training, appetite, and temperament. Ulcers may naturally heal if horses are turned out to pasture for an extended period of time, but they usually don't heal in horses that continue training.
In a recent survey using an endoscope to look inside the stomach, nearly all horses in training had ulcers. (Adapted from: Murray MJ, Schusser GF, Pipers FS, Gross SJ. Equine Vet J. 1996;26:368-374.)

Why do so many horses get ulcers?

Acid is normally produced 24 hours a day in the horse's stomach as a part of the horse's digestive process. When too much acid is present, ulcers result.  

Some factors that increase a horse's risk for stomach ulcers include:

- **Feeding.** Infrequent grazing or reduced hay intake can lead to stomach ulcers within hours to days.  
- **Training.** Intense exercise actually increases acid production in the horse's stomach. Performance horses often go without feed several hours of each day during training, permitting acid build-up within the stomach, causing more damage. In addition, exercise reduces blood flow to the stomach, but the effect this has on ulcer formation is not known.  
- **Physical Stress.** Foals that are sick, hospitalized, or in pain often get ulcers.  
- **Changes in Growing Foals.** The stomach of young foals is still developing and is easily injured by acid and enzymes.  
- **Other Factors.** Shipping and extended time in stalls expose horses to stresses that may cause ulcers. Ulcers may also result from certain medications given at high doses.

How can I tell if a horse has stomach ulcers?

If your horse is in training, the chances are high that it has stomach ulcers even if symptoms seem to be absent. Often it's clear only in hindsight, after treatment results in improved attitude, condition, or performance. In fact, by the time obvious symptoms appear, stomach ulcers may be advanced and more difficult to treat. So if in doubt, suspect ulcers until proven otherwise.

"Gastric ulcers should be strongly considered in mature horses, particularly those engaged in strenuous exercise, with recurrent colic and other vague disorders for which a diagnosis has not been determined."

-- Dr. MJ Murray
Endoscopy -- examining the inside of the stomach through an endoscope -- can confirm stomach ulcers.\textsuperscript{15} Certain symptoms strongly suggest ulcers. (See table below.) Any improvement after treatment with an effective antiulcer medicine suggests that the horse has stomach ulcers, but does not mean that the ulcers have healed. Healing usually requires continued treatment for a period of at least a month -- especially when the horse remains in training.

Typical symptoms of stomach ulcers in horses

<table>
<thead>
<tr>
<th>Adult Horse</th>
<th>Foal</th>
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<tbody>
<tr>
<td>Attitude change</td>
<td>Diarrhea</td>
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<tr>
<td>Dullness</td>
<td>Poor Growth</td>
</tr>
<tr>
<td>Poor performance</td>
<td>Rough hair coat</td>
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<tr>
<td>Poor appetite/ won't eat</td>
<td>Pot belly</td>
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<tr>
<td>Poor condition</td>
<td>Grinding of teeth</td>
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<tr>
<td>Colic</td>
<td>Colic</td>
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<tr>
<td>Behavioral changes</td>
<td>Lying on back</td>
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<tr>
<td>Response to treatment</td>
<td>Excessive salivation</td>
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</tbody>
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<tbody>
<tr>
<td></td>
<td>Interrupted nursing</td>
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<td></td>
<td>Response to treatment</td>
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</tbody>
</table>

How should stomach ulcers be managed?

The goals are to:

- Reduce acid.
- Eliminate symptoms.
- Ensure complete stomach healing.
- Prevent ulcer from coming back.

Stomach acid must be controlled at its source to let the stomach lining heal.\textsuperscript{10}

Changes in management procedures can also be an important part of the treatment program.

Treatment Recommendations

Recommendations for treatment of stomach ulcers include:

- Reduce acidity to allow healing to occur.
- Stop exercising the horse unless using medicine proven effective during training.
- Provide greater access to hay and pasture.
- Reduce obvious sources of stress and treat underlying disease.
Conclusion

Stomach ulcers, even when they do not cause any obvious external signs, can have a big impact on a horse's performance, condition, and health. Improvements in management, treatments, and prevention are leading to better medical and economic outcomes. Check for signs of stomach ulcers in your horses, particularly those in training. Provide earlier treatment using effective medications administered at the correct dosage rate. Change diet and environment to reduce risk factors where possible. Managing stomach ulcers is an important way to help improve your horse's health and maintain a competitive edge. For more information on stomach ulcers and their treatment, ask your veterinarian or go to the gastric ulcer section of The Merck Veterinary Manual to read more about this topic.

References