

BREATHING EASY

THE KEY TO EQUINE HEALTH & PERFORMANCE

UNDERSTAND YOUR HORSE'S RESPIRATORY SYSTEM

The equine respiratory system can be a major cause of poor performance and premature retirement from competition.

THE NOSE

- Horses are **obligate nasal breathers**. Unlike a human, a horse can only breathe through its nose.
- A significant portion of the horse's nasal passage is unsupported by bone or cartilage. When horses breathe hard during exercise, the soft tissue over the nasal passage collapses during inhalation.



- The nasal valve is the narrowest part of the upper airway. During exercise, **90% of the resistance to air flow occurs in the upper airway** (from nostrils to trachea) and 50% of that resistance comes from the nasal passage.
- FLAIR® Strips support the nasal passage and make it easier to take in oxygen.

THE LUNGS

- Unlike heart muscles, skeletal muscles, and bones, the lungs don't train or increase capacity with exercise. The amount of air moved is unchanged whether the horse is fit or unfit.
- Deep in the lungs, the tissue that separates the airways from the blood vessels is extremely thin (1/100th the thickness of a human hair). This ultrathin Pulmonary Capillary Membrane makes for efficient oxygen and carbon dioxide transfer, but it is fragile and ruptures when exposed to high blood pressure inside pulmonary capillaries and huge suction forces outside of the pulmonary capillaries during intensive exercise.
- The rupture of blood vessels that allows blood to spill into the airways during exercise is known as Exercise-Induced Pulmonary Hemorrhage (EIPH).
- EIPH is a silent injury. Essentially, all exercising horses experience some degree of lung bleeding during intense exercise, but less than 5% of horses show blood at the nostrils.



Human Hair



• Each incidence of EIPH contributes to scar tissue formation and further bleeding. Lung damage from repeated episodes of EIPH can shorten a horse's competitive career.



Right Nasal passag (without Flair)

Upper jawbone

Tongu

Top/Up

Bottom/Down

Flair Strip

eft Nasal passage (with Flair)

Mouth

ower iawbone

BREATHING AND STRIDE

- At a gallop, breathing and stride are linked. Horses take a single breath with each stride.
- At speeds beyond a hand gallop, horses increase speed by increasing stride length, not by moving their legs faster. When stride is lengthened, horses take deeper, longer breaths, providing the lungs with more air.
- Horses struggling to move air in and out of the lungs may shorten their stride and fatigue more quickly. Conversely, when a horse breathes easier, stride adjustability or lengthening is easier.

THE SCIENCE

- FLAIR® Strips are drug-free, self-adhesive strips that support the soft tissues of the nasal passage that collapse during exercise.
- FLAIR Strips are clinically proven to make breathing easier by reducing airway resistance resulting in reduced EIPH, conservation of energy, reduced fatigue and quicker recovery quicker after exercise.
- Eight clinical studies support the health benefits of FLAIR Strips.

WHAT IT MEANS FOR YOUR HORSE

- Breathing easier helps horses work harder and maintain optimum performance.
- Reducing fatigue and conserving energy helps horses work longer.
- Faster recovery means horses save energy for their next performance.
- Reducing lung stress and bleeding helps horses stay healthier and compete regularly.



BENEFITS FOR ALL DISCIPLINES AND EVERY LEVEL OF COMPETITION

- Breathing easier is important for horses at all levels of fitness and skill, as exercise is often
 a greater challenge for horses at lower levels than upper levels.
- Many riders report that horses wearing FLAIR Strips are more relaxed and focused.