# A VETERINARIAN'S CAMERA POWER

PALM BEACH EQUINE CLINIC'S diagnostic imaging department is unparallel when it comes to their camera capability.

OUNDED by Dr. Paul Wollenman in 1981 and led by president Dr. Scott Swerdlin since 1983, PBEC boasts the resources to successfully diagnose and treat any soft tissue or bone injury. The pivotal step, however, is the initial identification and diagnoses of a problem. Enter PBEC's arsenal of advanced diagnostic imaging equipment. Convenience, speed, and accuracy come together in this group of

machines in order to give PBEC veterinarians an edge on diagnostics, whether for the most common or the rarest of injuries and conditions.

An introduction to PBEC's diagnostic imaging equipment:

#### **DIGITAL RADIOGRAPHY**

Digital radiography is a modality now being used for routine equine imaging. The radiograph is a traditional x-ray made



available for viewing and evaluation digitally within seconds. A veterinarian's days in the darkroom are over thanks to this technology, which also allows onscreen adjustments much like editing a photo.

#### **NUCLEAR SCINTIGRAPHY**

Nuclear scintigraphy is essentially a bone scan that begins with the injection of a radioactive isotope called Technetium

99. The isotope attaches to the phosphorous proteins localized within the bone and is absorbed. A nuclear isotope gamma ray camera is then used to capture images of the skeletal anatomy with a 360-degree view. Points of interest "light up" on



the image to indicate increased metabolic activity and the site of injury.

## **ULTRASONOGRAPHY**

An ultrasound machine generates high-frequency sound waves, which echo an image back to the machine where bone



appears white, fluid appears black, and all other structures are on a grayscale. An ultrasound is non-invasive, usually does not require sedation, does not use radiation or require injecting radioactive isotopes, and provides real-time images.

# STANDING MAGNETIC RESONANCE **IMAGING (MRI)**

The standing MRI produces highly detailed images in several different planes

complete image of a desired area. An MRI requires only light sedation and is best used to further define a specific area of bony or soft tissue that has been pinpointed as the origin of lameness.



### **COMPUTED TOMOGRAPHY (CT)**



The CT scan is the newest and most flashy addition to PBEC's imaging department. Much like a CT in humans, it allows veterinarians the unique opportunity to conveniently explore areas of a horse's body that were previously unexplored. The

machine produces 3-D images of a horse's neck, spine, and head and can be conducted while a horse is standing under light sedation.

Palm Beach Equine Clinic's goal is to provide a definite diagnosis and never have to refer a case. In other words, PBEC is the mayo clinic for horses.

"Combining the tools of our imaging department allows us to provide services far beyond what other facilities can provide," Dr. Swerdlin said. "But even with all this technology, we need the people to make it all happen. That is exactly what we have, with veterinarians skilled at reading the scans produced technicians dedicated to caring for the horses before, after, and during any procedure, and worldrenowned surgeons who can take a diagnosis and fix the problem with a positive results for horse and owner. It takes a team and we have one of the best in the world at Palm Beach Equine Clinic."

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