

# ANIMAL REHABILITATION

## SPECIAL INTEREST GROUP

### President's Message

Kirk Peck, PT, PhD, CSCS, CCRT

#### Get Ready For "Big Time" Excitement During the 2016 APTA Combined Sections Meeting

A double win for the ARSIG is scheduled for February 2016 at CSM in Anaheim, California. The SIG is hosting two exceptional educational opportunities. First, a preconference course will be offered at CSM entitled, "Evaluation and Application of Select Manual Therapy Techniques for Canine Cervical Spine Dysfunction." This one-day course will be presented by Ria and David Acciani, two physical therapists with extensive experience practicing in New Jersey at the Advanced Canine Rehabilitation Center. This is a "must attend" opportunity to engage in live dog lab demonstrations to fine-tune or advance hands-on skills with canine manual therapy. Please do not hesitate to add this course to your personal continuing education agenda for 2016.

Second, the ARSIG CSM programming session will be one of the most amazing educational opportunities you simply cannot afford to miss. The topic for SIG programming in Anaheim is entitled, "Olympic Equestrian Showjumping: A Physical Therapy Approach To Assessment, Conditioning, and Rehabilitation of Horse and Rider." The speakers are Sharon Classen who is a physical therapist and elite competitive show jumper, and Danny Foster, the 1991 Pan American Games Gold Medalist and Hall of Fame Inductee. This unique presentation will incorporate two speakers who will focus on common injuries and rehabilitation related to equine and equestrian athletes. Those interested in either human or animal rehab will not be disappointed with this outstanding learning opportunity.

#### Step Up and Become a Scholar

I usually end with this section on a call for article submissions, but not in this edition of *OPTP*. This topic has become all too important, and yet, I would say one of the most neglected aspects of animal rehab today. Yes, I realize the fun of animal rehab is exactly doing just that...applying your knowledge of physical therapy to animals and experiencing the gratification of success. However, if the practice of animal rehab is to truly evolve as it should, then practitioners of the art need to support the profession by advancing the knowledge base, including sharing new ideas and innovations with others in the field.

The motto I frequently use to explain the value of scholarship in animal rehab is, "To promote, educate, and advance the practice of animal rehabilitation." Please take note of the word "advance." How can any single profession advance its level of care without the scholarship of discovery? It simply cannot be done. Therefore, I end with a request for all SIG members to please consider sharing some of your hard-earned wisdom with others in the field of animal rehab by submitting an article for potential publication in *OPTP*.

My request extends to a variety of scholarship ideas including clinical pearls, critiques of recently published articles, unique case studies, excerpts of primary research, or even per-

sonal interest stories related to animal rehab. Feel free to even share stories with an international flare if appropriate. Maybe you have experience working with animals outside the United States others might find of interest. If any of these options appeal to you, then please contact the President or Vice President of the ARSIG to submit an article for review.

#### Practice Analysis Update

The Practice Analysis Task Force has continued to progress with creating a comprehensive survey to assess competencies for animal rehab. The goal is to finalize the survey during the fall of 2015 and distribute to all SIG members. In addition, work is still being done to complete a White Paper and a full analysis of certification and educational programs in existence for animal rehab. The Task Force will be looking forward to receiving your input once the survey is released.

#### California Veterinary Medical Board

The California Veterinary Medical Board (VMB) has scheduled a public hearing on September 10th for the proposed regulatory language to mandate "direct supervision" over PTs. In the last edition of the *OPTP*, I expressed concerns about what potentially might occur if the Vet Board succeeds in mandating direct supervision over PTs and PTAs. I re-emphasize, the profession of PT deserves a lot more than to be viewed as simple technicians. Unfortunately, the public hearing will be over by the time this article goes to print. Therefore, I can only hope that regardless of the final decision moving forward, the Vet Board acts with a conscious effort to improve collaborative relations with the profession of physical therapy.

#### Future Communications

If there is a topic of interest or something you personally believe should be brought to the attention of ARSIG members, please let me know. I am more than happy to entertain new ideas or thoughts on what members might enjoy reading as part of the *OPTP* publication.

#### The Beauty of Olfactory Communication!



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# Perspectives on the Use of Mechanical Vibration in Equine Rehab

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## HIGH FREQUENCY MECHANICAL VIBRATION

Whole body vibration is a therapeutic intervention used in equine rehab to increase blood and lymphatic circulation, induce muscle relaxation, and promote bone strength.<sup>1</sup> The concept uses a large vibration plate to accommodate the entire body weight of a horse. More recently hand held devices have been developed to localize vibration over specific body tissues.<sup>2</sup>

Rapid release therapy (RRT) is a mechanical unit that vibrates at a frequency of 60 Hz. The device is composed of several application surfaces depending on the type and location of tissues being treated (Figure 1). The purpose of RRT is to mechanically agitate soft tissues to induce a massaging effect, promote relaxation, reduce pain, and to treat sensitive areas of muscle and myofascial tissue. On a personal note, I have used the RRT on elite show jumping equine clients and have observed immediate effects of muscle relaxation and decreased tissue response to pain provocation tests (Figure 2).

Recently, researchers from Taiwan investigated the use of high frequency mechanical vibration, interferential current, ultrasound, and low level laser on the effects of microcirculation in the Achilles tendon.<sup>3</sup> Outcomes of the study were enlightening. In short, the authors found statistical significance of increased blood flow to the Achilles tendon only upon use of ultrasound and a 30 Hz hand-held mechanical vibration device.<sup>3</sup> Although not formally assessed in the study, the authors noted that mechanical vibration may have increased microcirculation even more than ultrasound. Further studies were recommended.

The purpose of highlighting a recently published study that used mechanical vibration as one option to promote microcirculation was not intended to serve as an in-depth critique of methods, results, conclusions, or limitations, but rather to highlight two important points. First, the use of mechanical vibration is not commonly used in the practice of physical therapy, and certainly not prevalent in peer-reviewed literature. However, it is a common intervention used in equine rehabilitation, especially in the athletic population, and is now supported to a limited degree by scientific evidence. Second, outcomes of the



**Figure 1.** Hand held mechanical vibration device (RRT).



**Figure 2.** Mechanical vibration applied to the lumbosacral region of a horse.

study by Chang et al<sup>3</sup> should at the very least increase awareness of mechanical vibration as a potential intervention to be considered for the goal of increasing blood flow to tendon tissues with minimal vascularity.

## CLINICAL COMMENTARY ON THE EVIDENCE-BASED PRACTICE AND MECHANICAL VIBRATION

Without question, scholarly exploration and dissemination of evidence has significantly advanced the science of physical therapy in recent years. Researchers have not only validated but also challenged many assertions and beliefs regarding the practice of rehabilitation. In 2014, the American Physical Therapy Association published a document entitled, "Five Things Physical Therapists and Patients Should Question."<sup>4</sup> This document was created as part of a national campaign called "Choosing Wisely" initiated by the American Board of Internal Medicine Foundation.<sup>5</sup>

Five areas of physical therapy practice were identified by experts in the profession as being questionable by way of clinical practice based on scientific evidence. One of the items listed on the document is, "Don't employ passive physical agents except when necessary to facilitate participation in an active treatment program."<sup>4</sup> This statement implies that the use of passive physical agents alone, without active engagement by the patient, is not supported by current evidence. Therefore, even suggesting that a relatively new physical agent such as high level mechanical vibration might be of interest to physical therapists may seem a bit out of context given the current de-emphasis placed on the use of modalities in patient care.

It is true that discussing one physical agent as a potential source of patient care can be dangerous. Therefore, I share words of caution to anyone who may reason that using mechanical vibration alone constitutes "good" practice of physical therapy. In fact I propose just the opposite, and agree whole heartedly with the evidence summarized by the APTA Choosing Wisely campaign indicating that physical agents are simply adjunct to a more holistic plan of care that better defines the practice of physical therapy. The positive outcomes reported by Chang et al<sup>3</sup> of using mechanical vibration to induce physiological change are encouraging but warrant further studies to validate this therapeutic agent in animal rehabilitation.

## ACKNOWLEDGEMENT

Photos courtesy of Kirk Peck and Sharon Classen 2015.

## REFERENCES

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