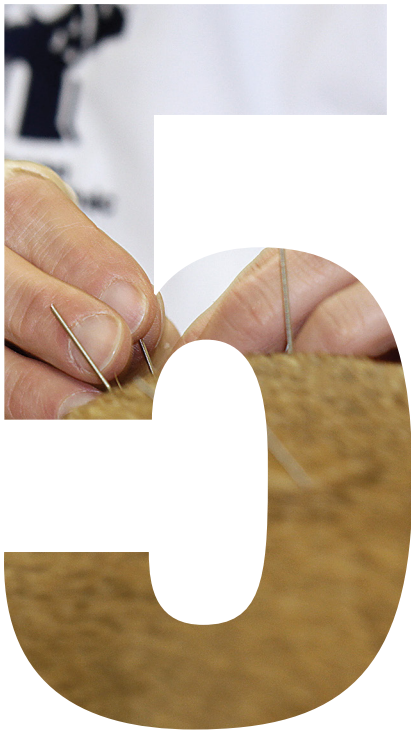


OPINION

TOP



POINTS FOR
INCORPORATING
COMPLEMENTARY
& INTEGRATIVE
MEDICINE
INTO PRACTICE

The use of complementary and integrative veterinary medicine has grown quickly in terms of clinical practice, research, and education and is emerging in importance regarding new resources in disease management, especially chronic diseases, and challenging health problems.

In 1996, an estimated 6% of responding U.S. pet owners used at least one form of complementary and alternative (CAM) therapies in caring for their pets.¹ In a 2003 follow-up study, the percentage of CAM therapies use had increased to 21%.¹ A 2006 survey found that 76% of owners used some form of CAM therapies, most commonly nutritional supplements, in dogs and cats with cancer.² This trend suggests that clients will continue to demand CAM therapies, which will affect future pet health care delivery.

Following are 5 points that can help veterinary teams fit complementary and integrative medicine into the current medical model.

Understand the Terminology

1 The National Center for Complementary and Integrative Health, formerly the National Center for Complementary and Alternative Medicine, classifies *alternative medicine* as an approach to healing used in place of conventional medicine. *Complementary medicine*, on the other hand, is used together with conventional medicine. Mounting scientific evidence on the safety and efficacy of complementary treatments has led to a new term, *integrative medicine* (IM), described as the combination of conventional medicine with safe and evidence-based complementary medicine to maximize positive therapeutic outcomes and achieve optimal health and healing.³ For example, evidence suggests that acupuncture is a safe, effective therapy for managing chronic pain⁴ and nausea and vomiting.⁵

Complementary and integrative veterinary medicine (CIVM) is the term most commonly used in veterinary medicine today.

Points for
Incorporating
Complementary
& Integrative
Medicine into
Practice

- Understand the Terminology
- Know the Goals
- Know the Benefits
- Consider the Modalities
- Give Clients Appropriate Advice.

2 Know the Goals

The intent of an integrative approach is to enhance overall health status, prevent disease, and alleviate debilitating clinical signs and conditions such as pain, seizures, and paralysis. CIVM maintains the standards of medical and scientific practice principles and at the same time emphasizes:

- A focus on wellness and prevention of illness
- The incorporation of evidence-based, safe, and ethical complementary therapies
- An individual approach to any patient or clinical situation using the optimal modality available
- Minimal use of prescription drugs and conventional therapies, resulting in cost savings and fewer adverse effects.

3 Know the Benefits

These therapies have the potential to:

- Enhance the effectiveness of conventional medicine
- Provide relief of clinical signs
- Treat conditions that failed to respond to conventional medicine (eg, chronic pain, seizures, atopy)
- Avoid or reduce some medication adverse effects (eg, poor appetite, vomiting, diarrhea, lethargy, pain, elevated hepatic enzymes)
- Minimize medication use (eg, reduced use of NSAIDs, use only

as needed after a CIVM treatment series)

- Enhance mental and physical health
- Prevent disease
- Improve well-being and quality of life.

4 Consider the Modalities

The following common CIVM modalities could be added to the services a typical practice provides:

- Acupuncture
- Dietary supplement & nutraceutical therapy
- Extracorporeal shockwave therapy
- Homeopathy
- Hyperbaric oxygen therapy
- Low-level laser therapy
- Manual or manipulative therapy
- Physical rehabilitation (eg, hydrotherapy, therapeutic ultrasound, therapeutic exercises)
- Stem cell therapy
- Western & Chinese herbal medicine.

5 Give Clients Appropriate Advice

The first, most important step with CIVM is establishing a clinical diagnosis. Clients requesting advice on the use and integration of CIVM should first have their pets evaluated by a veterinarian. When a diagnosis is established, the veterinarian should evaluate the

appropriateness of CIVM use along with conventional treatment, present all available conventional and CIVM treatment options to the client, and discuss each specific modality's advantages and disadvantages.

Most CIVM therapies tend to be safe with relatively low adverse effect profiles, particularly in the hands of experienced integrative veterinarians. Some therapies can be potentially dangerous,^{6,7} however, or may interfere with the therapeutic effect of the conventional treatment when they are combined.⁷ For example, using low-level laser therapy for a tumor may instead stimulate tumor growth.⁷ Also, for example, the herbs *Ginkgo biloba*, *Angelica sinensis*, or *Salvia miltiorrhiza* may interact with anti-coagulants and thus increase bleeding tendency.⁸ Potential benefits should always be assessed to outweigh any potential risks before using these therapies.

Client consent should be obtained before any treatment. Once treatment has started, it is important to look for any adverse effects and to evaluate the disease progress and the patient's condition. If the patient fails to improve or experiences undesired effects, the veterinarian must reevaluate the patient and decide whether an additional work-up is needed or the treatment modality should be changed.

Conclusion

In the future, there will be greater understanding of CIVM in the profession because efforts have increased to teach and implement the best of evidence-based CIVM principles into the standard veterinary school curriculum. A 2000 survey of U.S. veterinary schools found that 10 of 24 schools offered a separate elective CIVM course.⁹ Eighty-seven percent of respondents believed the curriculum should include acupuncture, nutraceuticals, nutritional supplements, and physical therapy.⁹ Several schools that did not offer a CIVM course in 2000 now include at least an elective course in their curriculum (see **New Standards**).¹⁰


The scientific foundation for many complementary approaches is still being built, but CIVM can provide the balance needed to create the best possible medicine or health care for

New Standards

Veterinary schools that have added CIVM courses since 2000:

- Louisiana State University
- University of California, Davis
- University of Georgia
- University of Maryland
- University of Minnesota
- Texas A&M University
- Washington State University.

the veterinarian, the client, and the patient.

The key is to incorporate this integrative philosophy into veterinary education so that primary care is enhanced and veterinarians are able to use integrative therapies to facilitate health and improve patients' quality of life. The integrative medicine of today may simply be the medicine of the new century. 

References

1. Complementary veterinary medicine. American Animal Hospital Association. https://www.aaha.org/pet_owner/pet_health_library/general_health_care/complementary_veterinary_medicine.aspx. Accessed September 2015.
2. Lana SE, Kogan LR, Grump KA, Graham JT, Robinson NG. The use of complementary and alternative therapies in dogs and cats with cancer. *JAAHA*. 2006;42(5):361-365.
3. IM Consortium: Definition of Integrative Medicine. Academic Consortium of Integrative Medicine and Health. <https://www.imconsortium.org/about/about-us.cfm>. Accessed September 2015.
4. Vickers AJ, Linde K. Acupuncture for chronic pain. *JAMA*. 2014;311(9):955-956.
5. Lee A, Fan LT. Stimulation of the wrist acupuncture point P6 for preventing postoperative nausea and vomiting. *Cochrane Database Syst Rev*. 2009;15(2):CD003281.
6. Bunchorntavakul C, Reddy KR. Review article: herbal and dietary supplement hepatotoxicity. *Aliment Pharmacol Ther*. 2013;37(1):3-17.
7. Frigo L, Luppi JS, Favero GM. The effect of low-level laser irradiation (In-Ga-Al-AsP - 660 nm) on melanoma in vitro and in vivo. *BMC Cancer*. 2009;9:404.
8. Fugh-Berman A. Herb-drug interactions. *Lancet*. 2000;355(9208):1020.
9. Schoen AM. Results of a survey on educational and research programs in complementary and alternative veterinary medicine at veterinary medical schools in the United States. *JAMA*. 2000;284(4):502-509.
10. Memon MA, Sprunger LK. Survey of colleges and schools of veterinary medicine regarding education in complementary and alternative veterinary medicine. *JAVMA*. 2011;239(5):619-623.

◀ Continued from page 15

9. Crespin DJ, Griffin KH, Johnson JR, et al. Acupuncture provides short-term pain relief for patients in a total joint replacement program. *Pain Med*. 2015;16(6):1195-1203.
10. Greeson JM, Rosenweig S, Halbert SC, Cantor IS, Keener MT, Brainard GC. Integrative medicine research at an academic medical center: Patient characteristics and health-related quality-of-life outcomes. *J Altern Complement Med*. 2008;14(6):763-767.
11. Marx RG, Jones EC, Angel M, Wickiewicz TL, Warren RF. Beliefs and attitudes of members of the American Academy of Orthopaedic Surgeons regarding the treatment of anterior cruciate ligament injury. *Arthroscopy*. 2003;19(7):762-770.
12. Powers MY, Martinez SA, Lincoln JD, Temple CJ, Arnaiz A. Prevalence of cranial cruciate ligament rupture in a population of dogs with lameness

previously attributed to hip dysplasia: 369 cases (1994-2003). *JAVMA*. 2005;227(7):1109-1111.

13. Barrett E, Barr F, Owen M, Bradley K. A retrospective study of the MRI findings in 18 dogs with stifle injuries. *J Small Anim Pract*. 2009;50(9):448-456.
14. Fox DB. Ten ways to improve your orthopedic examination. *Today's Veterinary Practice*. <http://todaysveterinarypractice.navc.com/top-ten-ten-ways-to-improve-your-orthopedic-examination/>. Accessed August 2015.
15. Travell JG, Simons DG. The lower extremities. In: Travell JG, Simons DG, eds. *Myofascial Pain and Dysfunction. The Trigger Point Manual*. Vol 2. Baltimore, MD: Williams & Wilkins; 1983.
16. Sheehan FT, Borotikar BS, Behnam AJ, Alter KE. Alterations in *in vivo* knee joint kinematics following a femoral nerve-orthopedic branch block of the vastus medialis: Implications for patellofem-

oral pain syndrome. *Clin Biomechanics*. 2012;27(6):525-531.

17. Cook JL. Cranial cruciate ligament disease in dogs: Biology versus biomechanics. *Vet Surg*. 2010;39(3):270-277.
18. Garnett SD, Raye RM. Short-term complications associated with TPLO in dogs using 2.0 and 2.7 mm plates. *J Am Anim Hosp Assoc*. 2014;50(6):396-404.
19. Coletti TJ, Anderson M, Gorse MJ, et al. Complications associated with tibial plateau leveling osteotomy: a retrospective of 1519 procedures. *Can Vet J*. 2014;55:249-254.
20. Taylor J, Langenbach A, Marcellin-Little DJ. Risk factors for fibular fracture after TPLO. *Vet Surg*. 2011;40(6):687-693.
21. Bergh MS, Peirone B. Complications of tibial plateau levelling osteotomy in dogs. *Vet Comp Orthop Traumatol*. 2012;24:349-358.

Continued on page 55 ▶