

ONE MEDICINE: INTEGRATION OF EAST AND WEST

Dog Owners and Breeders Symposium

University of Florida

College of Veterinary Medicine

July 29, 2000

R.M. Clemmons, DVM, PhD

Associate Professor of Neurology & Neurosurgery

Certified in Veterinary Acupuncture

SACS, University of Florida

Some people say, “There is only one medicine: medicine which is proven; medicine which is scientific; and medicine which is good,” indicating that all other forms of medicine are bad, unscientific and unproven. I disagree. There are many forms of medicine which have been practiced (or are currently being practiced) all over the world which these people would explain away as superstition and quackery; however, some of these practices are as valid today as they were thousands of years ago.

While antibiotics, computers and other advances in equipment have revolutionized medicine, these have only been available in the last 60 years. So, what we think of as modern medicine is barely 200 years old. People lived healthy lives long before that and had existing health care systems that relied on herbal medicines, foods and body manipulations for treatment and prevention of disease. Only in the United States has modern medicine completely replaced older forms of medicine. The World Health Organization recently indicated that 80% of the world’s population relied on herbal medications as part of their primary health care.

A new movement today in medicine is to incorporate modern, Western medicine with the best of other forms of healing into a single more expansive, integrative medical system. This is based upon the concept that there is only one medicine, medicine that helps patients recover from injury and disease. Practitioners of integrative medicine combine traditional medicine with alternative forms of medicine in treating their patients based upon what problem the patient has.

Traditional medicine, that medicine taught by modern, Western medical schools, is great at diagnosing and treating acute disease. It is not always the best at preventing disease. Certainly judicious use of vaccinations has helped protect against diseases of early life; but, short of this, modern medicine has not yet embraced methods to keep most diseases from happening, particularly chronic diseases like auto-immune disorders and cancer. Only now are diet, exercise and nutritional supplements being considered as part of health and physicians are beginning to encourage patients to seek help from less “traditional” medical systems.

Veterinarians have lagged behind this movement in human medicine toward integrative care. Of course, there are a number of veterinarians who practice non-traditional forms of medicine; but most of these veterinarians do not practice conventional medicine as well as complementary medicine. Often, they wear two hats, one for conventional medical practice and another for alternative medical practice or they abandon conventional medicine altogether. This leads to a division in veterinary care rather than integration of this care. Hopefully, the movement toward integrative medicine will bridge the gap and bring both sides of traditional and complementary veterinary medicine together. Rather than to argue whom has the best way to treat a patient, the veterinarians can focus on how best to resolve any current disease then how to keep the patient healthy in the future. This is, to me, the goal of integrative medicine.

We know that the application of recent and future advances in modern medicine will not stop. We must continue to examine the inner workings of the body in terms of new developments, concepts and scientific knowledge. On the other hand, Eastern philosophers would argue that to treat the body while ignoring the spirit is not healthy practice. This is at the heart of the controversy and the movement toward incorporating alternative medicine into patient care. Many people perceive alternative medicine as a kinder and gentler approach. Science can be cold, calculating and heartless. Medicine should not be. Medicine deals with people and pets, who are not cold or heartless. The best science is no good if the patient is ignored.

The movement toward specialty practices in veterinary medicine, providing veterinarians with additional training in a specific area of medicine has furthered this division. The patients are called “a great liver case” or “a case of congestive heart failure”. That is why holistic veterinary medicine was created. It said, “No, it is a pet with a bad liver. We must take care of the whole patient, not just the liver.” However, integrative medicine goes farther.

In integrative medicine, it is understood that not every veterinarian can be an expert in all aspects of veterinary medicine, either traditional or non-traditional. On the other hand, the primary veterinarian does have the responsibility to know enough about the disease process and the various traditional and non-traditional approaches that can be taken in the diagnosis and treatment of the patient so that the best recommendation can be made for each patient. In that way, the patient can be referred to the best veterinary health care team, including traditional veterinary specialists and practitioners trained in non-traditional medicine so that the patient can receive the benefits of each. Test procedures and therapies can be coordinated and prioritized based upon the patient’s individual needs.

In this way, the body, mind and spirit can be served for both the short and the long term good of the patient. Acute care is most likely to take the form of traditional medical care, while long term health is probably best achieved with changes in the patient’s life-style, including dietary modifications, vitamin therapy, exercise, energy work (acupuncture, homeopathy and healing touch), and manual therapy (massage, physical therapy and veterinary chiropractic). Developing a comprehensive health care approach for each patient provides integrative medical care.

We still have a distance to go to see integrative medicine gain its proper place in the care of veterinary patients. The sides are still divided; however, the ground swell is beginning and many more veterinarians are embracing the concept. It is, after all, the patient that counts. Here are some areas where integrative medicine can be applied.

Exercise

The importance of regular aerobic exercise in the prevention of chronic degenerative diseases and maintenance of good health should not be overlooked. Many studies in human beings have demonstrated improved muscle performance, memory and cerebral blood flow in patients who undertake aerobic exercise. Many of the goals of treatment in chronic neurodegenerative disease are obtainable through regular exercise. Two forms of exercise seem the most useful: walking and swimming. Both have their merits and they may not be exclusive. A number of pet owners have reported that swimming assists dogs beyond the exercise of mere walking. Swimming generally increases muscle tone and allows movement without stress on joints. Walking, on the other hand, helps build strength, since gravity is involved. In older patients, particularly those with arthritis, gradually building the exercise program is important. In addition, allowing a day of rest between heavy workouts can help the patient recover faster from the exercise. A good general reference of exercise physiology and exercise programs is a book by Jeff Galloway: *Galloway's Book on Running*, Shelter Publications, Inc., Bolinas, CA 1984.

Start out with 5-10 minutes of walking or swimming every other day for two weeks. Then, increase the length of exercise time to a goal of 30 minutes twice a week and a long walk of one hour once a week. If your dog already exceeds these limits, that is fine. However, remember to provide a day of easier exercise between vigorous workouts. This is particularly important as the patient gets older. It is sustained exercise, which is important; walking in the backyard is not adequate. Many patients with chronic spinal disorders have remained functional because of the exercise alone.

Diet

The best dog food is fresh food, prepared to provide optimal nutrients while reducing risks of disease transmission. Not everyone can home prepare the diets for their pet. It does take time and extra planning.

Millions of years ago, dogs caught their own food and ate it raw. Today, however, processed raw food is not as safe as the fresh-killed food our dogs' ancestors ate. I think that all dog food should be cooked (at least on the outside) to reduce the chances for contagion and to increase the food's palatability.

Modern dogs have evolved with us and have adapted to eating what we eat. It is best to feed them diets that have been checked for their unique requirements and balanced for them. Too much variety may lead to gastrointestinal upset and diarrhea. On the other hand, adding some variety helps prevent deficiency of vital nutrients.

Commercial foods (particularly premium, natural pet foods) offer the advantage that they are convenient and they do meet the minimum daily requirements (MDR) for dogs. On the other hand, even the best commercial food does not provide extra nutrients beyond those needed to prevent specific nutritional deficiencies. In addition, the MDR for dogs were established before the increase in pollutants and stresses that our pets are exposed to today. These commercial foods can, therefore, benefit with the addition of fresh food and supplements, making them more complete and healthy.

To improve the quality of any commercial dog food, add tofu (a good source of soy lecithin, phytoestrogens and bioflavonoids), carrots (a good source of beta carotene), greens (like spinach which provides many trace minerals), and broccoli (a good source of bioflavonoids which act as anti-cancer compounds). These can be mixed by the following formula and added to make up 1/3 of the total diet (reducing the commercial food by 1/3 in amount).

- 4 oz. Tofu (soybean curd)
- 2 Whole Carrots
- 1 cup Spinach (cooked)
- 4 Tbs. Green Bell Pepper
- 4 Broccoli Spears (1/2 cup)

The tofu can be fried in olive oil and the other vegetables cooked to help in their digestibility. Most dogs will enjoy this combination and benefit from the extra nutrition provided. One way to provide this conveniently would be to get prepared stir-fry vegetables and add tofu during their preparation.

Herbal Therapy

Many of our modern day drugs originally came from plants. Even Hippocrates, the father of modern medicine, suggested that health could be maintained with regular exercise, a good night's rest, healthy diet and a few good herbs. Certainly, herbal medications help maintain the health of most of the people on the planet and most animals know instinctively about certain plants. Dogs eat grass to soothe their stomachs.

The opponents of herbal medicine point to the inconsistencies in certain preparation, variations in plant contents brought on by seasonal variations and lack of standardization from manufacturer to manufacturer. They state that herbal remedies are not FDA approved and therefore can be unsafe. All of this is potentially true. On the other hand, none of these problems is sufficient to warrant not using certain herbal remedies to help maintain health. In the cases where the herbal ingredient can be toxic, yet very beneficial, the ingredient should be isolated and reduced to the active ingredient. This is true for drugs like digitalis from the foxglove plant or vincristine from periwinkles. For many of the other herbs, reducing them to one ingredient may actually stop their action, since it is the combination of materials that make them work.

Herbal medicines can generally be separated into those which are safe for everyone, those that are safe unless there is a pre-existing medical problem, and those which are safe if used under medical supervision. The culinary herbs, if used in moderation, can be highly beneficial to health and usually cause little concern. These would include herbs like ginger and garlic. Fresh ginger is an important antiemetic drug that soothes the stomach and reduces nausea. Dry ginger can be helpful in controlling mild diarrhea. Fresh garlic is antibacterial and antifungal and can be used to help control infection. There is however, a single report of a single cat that developed a Heinz body anemia on high doses of garlic.

Herbs like *Ginkgo biloba* are probably safe unless there are medical reasons not to use it. Ginkgo improves blood flow to tissues and has anti-asthma properties. As an antioxidant, it appears to be as potent as many of our modern medications. In older people, it can improve cerebral blood flow by up to 70%, improving memory and reducing progression of Alzheimer's disease. Certainly, it has great potential in treating Canine Cognitive Disorder in older dogs. Ginkgo does have the potential, like other antioxidants, to reduce platelet function and lead to prolongation of the bleeding time. It should be used, therefore, with caution in dogs with von Willebrand's disease.

Hawthorn, *Crataegus oxyacantha*, is a heart tonic that can lower blood pressure, reduce chest pain, moderate cardiac arrhythmia and increase blood flow to the heart itself. It can improve exercise and stress tolerance. Hawthorn provides at least four benefits to the heart, all of which are the goals of modern heart patient therapy. It appears to be safe, can be used with other heart medications (although it can be synergistic with digitalis and, therefore, digitalis doses should be reduced if used with Hawthorn), and does not lose its effectiveness over time. In studies of human patients in Germany who had Type II congestive heart failure, Hawthorn was as effective as any other therapy. However, because it is used to treat (as well as prevent) heart problems, it should be used under the guidance of your veterinary health care team.

Awareness and use of herbal medications in people and animals is increasing, particularly in light of the expense of modern medications, when sometimes there are cheaper herbal alternatives. Many conditions do respond to herbal treatments and herbs can help prevent some disease processes from progressing to the point where interventions that are more aggressive are needed. Part of integrative medicine is to provide data where available, or to continue to investigate and make the data available in the future, where it is not about which herbs have effects that can help maintain health and which do not appear to have efficacy. With limits on veterinary interventions that can be undertaken, decision about what herbal remedies to use must be made wisely and frugally.

Orthomolecular

Orthomolecular medicine (OM) is an emerging tool of the 21st century. OM is the preservation of health and prevention of disease through the provision of the optimum molecular constituents of the body. Literally, it means "right molecule". Practitioners of OM believe that nutrition must come first in health, that each individual has a biochemical optimum, that drugs can be toxic and should be minimized where possible, and the pollution cannot be escaped. As such, they advocate the use of prescribed quantities of vital nutrients at levels sufficient to prevent, treat or control certain diseases. MDR of antioxidants, membrane stabilizers and cofactors (many of which are vitamins) are not enough to fulfill the body's requirements and supplementation of these levels is necessary for health.

Antioxidants include vitamin E, vitamin C, selenium, beta-carotene (vitamin A), superoxide dismutase, glutathione peroxidase, acetylcysteine, and L-methionine. Membrane stabilizers include omega-3 fatty acids, gamma-linolenic acid, coenzyme Q-10, L-carnitine, and L-aurine. Cofactors include B vitamins (niacin, folic acid thiamin, and cyanocobalamin) and trace minerals (zinc, iron, copper, and cobalt). All of these can be manipulated to provide the right individual balance for each pet.

Vitamin E is an important nutrient, which has been shown to have a number of physiologic and pharmacologic effects. It is a potent antioxidant and reduces fat oxidation and increases the production of HDL cholesterol. At higher doses, it also reduces cyclooxygenase and lipooxygenase activities, decreasing production of prostaglandins and leukotrienes. As such, it is a potent anti-inflammatory drug. It will reduce platelet function and prolong the bleeding time slightly in healthy individuals. There is no known side effects to vitamin E at levels less than 4000-6000 IU per day. A preventative level in dogs is around 10-20 IU/kg, while therapeutic levels can be between 50-100 IU/kg.

Vitamin C works with vitamin E and helps regenerate vitamin E, potentiating its antioxidant effect. Vitamin C supplementation does no harm, since the excess is excreted through the kidney. While dogs produce vitamin C in their bodies (unlike human beings and guinea pigs who must have it in their diet), under stress or disease, they may need vitamin C in excess of their manufacturing capacity. In excessive doses, vitamin C can cause flatulence and diarrhea. This intestinal tolerance level varies among dogs, but is generally around 3000 mg per day in adult German Shepherd Dogs. The dose of vitamin C to start with is around 25mg/kg twice a day.

Omega-3 fatty acids like EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are the constituents of fish oils that act as anti-inflammatory agents and may be worth trying if your dog has an autoimmune disorder or arthritis. Many versions of these substances are on the shelves of health-food stores, from salmon oil to capsules of concentrated EPA. However, eating some cooked salmon or sardines may have benefits over capsular forms of the fish oils. Alternatively, you can give ground flaxseeds, flax oil, or hemp oil as a dietary supplement rather than fish oils. These materials will reduce platelet function for a brief period in dogs, but it seems that dogs compensate for this within about eight weeks. Omega-3 fatty acids replace the 2-series fatty acids over time. As such, cellular stimulation produces 3-series prostaglandins and thromboxanes. The later does not cause inflammation and reduce blood flow like the 2-series thromboxanes. Try 10-15 mg/kg of fish oil, 1 T. ground flaxseeds, or feed two sardines every day. Since some studies have demonstrated negative or adverse effects using fish oil capsules (due to spoilage), I prefer giving sardines or ground flaxseeds as the supplement source.

B complex is a balanced form of vitamin B supplementation, which is the only way B vitamins should be given, unless specifically instructed to give one of the B vitamins by your veterinarian. B vitamins are cofactors for a number of important biological processes. They are important in maintaining a positive environment for neural regenerative efforts. In addition, they are water-soluble so that any excess is merely eliminated in the urine. I recommend that all dogs receive B complex supplements twice a day. For small dogs, use the regular B complex. For medium size dogs, use high potency B complex (B 50s). For large dogs, use high potency stress formula B complex (B100s).

The advantage of OM therapy is that the ingredients can be optimized for each patient, supporting their optimal healing system function. The components can be used both to treat and to prevent disease, while remaining safe and cost effective. OM practitioners still need to validate efficacy of each component, demonstrate whether drug interactions exist, and provide safety information where lacking. On the other hand, OM has been practiced in one form or another for around 40 years, which seems to be the minimum time for acceptance into mainstream medicine.

Human-Animal Bond

An important aspect of your pet's development is play and attention from you, the owner. Not only do human beings benefit from contact with animals; animals benefit from the care and interaction with their owners. Companionship and care given mutually will help the owner and the pet live happier and healthier lives. No matter how busy or hectic things seem to be, be sure to spend time with your pet. It is best to set aside playtime. This can be a part of the regular exercise period, but also make time to cuddle, hold and touch your pet. It is also good to "practice" manipulations that might be needed in times of injury or illness so that they will be less stressful should they be needed. Don't worry, your pet will welcome the attention.

Vaccinations*

There are two things that have been ingrained in the teaching of veterinarians for years: 1. Dogs should eat dog food and 2. Dogs and cats should be vaccinated yearly for every disease imaginable. There is actually a lack of scientific evidence to support the current practice of annual vaccination and increasing documentation showing that over-vaccinating has been associated with harmful side effects.

While vaccination is one of the 20th century's greatest advances in medicine, saving thousands of lives by preventing childhood infectious disease, there is mounting evidence that these vaccinations may play a role in the increasing incidence of autoimmune diseases and even the cancers that we see today. Prime examples are the association of autoimmune hemolytic anemia with vaccination in dogs and vaccine-associated sarcomas in cats—both of which are often fatal. The vaccine contains adjuvants that boost the body's response to the altered vaccine materials (proteins derived from the infectious organism). This material is injected into the body, which can lead to local trauma and release of tissue antigens at the site of injection. As a result, the adjuvant can stimulate the body's immune response at these released body antigens as well as the vaccine material.

Except for rabies vaccine, the yearly revaccination recommendation on vaccine labels is only a recommendation without supporting data of long-term immune studies. It is not a legal requirement. Only rabies vaccines have required duration, immunity studies that must be carried out before they can be licensed in the United States. Even with rabies vaccines, a three-year duration of immunity product may also be labeled and sold as a one-year product. Legally, rabies vaccination is required in many areas and the accepted duration of immunity varies greatly. Working with local governments to achieve reasonable vaccination schedules for rabies is the only way to change this. On the other hand, your veterinarian can provide documentation to bypass this legal requirement, if vaccinating your pet could be medically unsafe.

Unfortunately, no one knows the real need for vaccination, but yearly boosters for all infectious diseases are overkill. Clearly, in many cases, the vaccinations are not necessary and giving them may cause problems. The risk of not giving vaccinations (once the healthy young dog has been adequately immunized) is becoming less than the risk of giving them. What appears to be the prevailing view is that dogs and cats should receive their puppy and kitten series against the

* The AKC Canine Health Foundation is currently funding research studies in antibody response and vaccine duration. For more information on these studies, refer to the website (www.akcchf.org) for sponsored research programs or request a copy of AKC/CHF currently sponsored research.

major canine and feline diseases. The vaccinations should be repeated at one year of age. After that time, only necessary vaccines should be given. That includes, of course, the legally required rabies vaccinations.

Your local veterinarian is your best resource to develop a vaccination program tailored for your pet. The health status and infectious disease risks of your pet should be considered in the selection of a vaccination program. Infectious disease risk may vary with differing localities. In addition, recent studies clearly indicate that not all vaccines perform equally.

Once puppyhood is over, further parvovirus vaccination is probably unwarranted. The disease in adults is mild and self-limiting. Intranasal vaccination for Bordetella may provide life-long immunity (although more frequent intranasal vaccinations may not carry the same risk as injected vaccines). In areas where Lyme disease or leptospirosis is not prevalent, vaccination for these agents seems unnecessary. On the other hand, vaccination for canine distemper and canine hepatitis virus is probably warranted at some time while the animal ages. There are currently three ways to do this: 1. Monitor titers and vaccinate when the IgG antibody titer drops below 1:50 (although this may not be any more valid than guessing), 2. Revaccinate when the dog gets 10-12 years old (which in many cases will be adequate), or 3. Play the odds and vaccinate every three years.

Recent studies with the major feline vaccines indicated that the worse vaccine had, at least, a three-year duration of immunity in healthy cats. The best vaccine protected cats for over eight years. The American Association of Feline Practitioners, as a result, recommends a three-year vaccination schedule for cats.

No one wants their pet to contract a preventable disease, yet most healthy animals do not need vaccination as often as is currently practiced. Immunodeficient animals may not respond adequately regardless of the vaccination schedule. Discuss these options with your veterinarian and make an informed choice about vaccination. Hopefully, your veterinarian will have thought and struggled with these issues and be able to support your decision about your pet's health.

Remember: Pets may not need yearly vaccinations, but they should still have a yearly check-up by your veterinarian.

Additional Measures

Acupuncture: Acupuncture is one form of ancient medicine which has now become mainstream and is widely accepted as a method to provide analgesia without the side-effects of drugs. Acupuncture has local effects, segmental effects at the spinal cord level and systemic effects mediated through brainstem connections with acupuncture points. Connections with the body surface and internal organs (referred to as pain pathways) allow stimulation of surface acupuncture points to influence the function of internal organs. In addition, dysfunction of the internal organs can be manifested by sensitivity of points on the body surface. Acupuncture can help treat gastrointestinal and urinary tract dysfunction. It stabilizes the adrenal gland function and may increase endogenous corticosteroid secretion without the side effects of exogenous steroid medication. Electrical acupuncture will stimulate reflex activity, improving muscle strength and allowing more rapid return of function. Generally, acupuncture is given over several treatments. If it does not provide benefits within 3-5 treatments, then further therapy may not be warranted. Acupuncture should be performed only by a veterinarian who is trained

and certified in its use; your veterinarian should be able to refer you to a qualified veterinary acupuncturist in your area.

Chiropractic Care: Veterinary Chiropractic is a rapidly emerging field in treating equine patients and is expanding in its role in treating small animals. It should be performed by a licensed Veterinary Chiropractor. In general, veterinary chiropractic involves the manual adjustments of the vertebrae to correct chiropractic, vertebral subluxations. It is felt that these subluxations result in a series of events beginning with vertebral misalignment and sequentially progressing to neuropathy, kinesiopathy (changes in normal vertebral movement), neurologic or biomechanical dysfunction, and tissue degeneration. Correcting these subluxations may reverse this process and stimulate healing.

The application of chiropractic manipulations to dogs with chondrodystrophy early in life may help prevent the development of intervertebral disc (IVD) disease by maintaining vertebral flexibility. It is likely that the dietary changes and supplements discussed above will be synergistic with this effort, also. Since chiropractic is limited to manual spinal column adjustments, you will need a veterinarian who can integrate these methods.

Once IVD disease has already occurred, chiropractic manipulations should not be performed during the acute phases, but be limited to the assistance of recovery following surgery or once the patient has sufficiently healed so that the manipulations will be less likely to cause further IVD herniation. This may be only after “strict rest” has been enforced for three weeks after the patient is normal.

Physical & Massage Therapy: Massage therapy improves muscle and joint flexibility, increases blood supply (improving nutrient delivery and waste removal), and help prevent or breakdown scar tissue formation. It also helps relax muscle spasms and aids in patient comfort levels. Massage therapy for animals should be performed by massage therapists trained in animal behavior and anatomy, under the supervision of your veterinarian. Many of the basic principles can be learned by the owner under proper instruction.

Healing Touch: Healing touch is based upon the capacity of human beings to pass “life-force” from themselves into others willing to accept this gift. Although many forms of healing touch are taught in the West, they represent teachings of the same physical process. Many studies have indicated that human contact can help lower blood pressure, reduce stress and improve the state of well being of the recipient. Human contact has also been shown to increase the immune resistance of others. These principles can be used to help animal patients heal, as well. While it is not easy to demonstrate measurable results in all cases, certainly healing touch does no harm. When done as taught by practitioners of healing touch, it does not cost the “giver” personal energy, since the “giver” acts as a conduit of “universal” life-force which is freely available from a limitless supply of life-force within the cosmos. The “recipient” is free to accept and use this life-force energy. Most Eastern philosophies of healing are based upon the concept that living beings are based upon energy which flows in the body. When the energy level is low or there is a blockage of energy flow, disease develops. Healing touch, by providing life-force energy above or below this blockage, can re-establish the natural flow of energy, allowing healing to take place.

While healing touch has a spiritual aspect, it is not a religious practice nor does it require any particular belief by the giver or recipient. What is required is recognition by the giver that this process can occur and for the giver to practice the technique to establish pathways for energy flow from them to the recipient. Distant healing touch can also be beneficial to patients. In this form of healing touch, the giver establishes a “psychic” connection with the recipient and mentally visualizes offering the life-force to the patient. Many double blind studies have shown that prayers directed at patients in human intensive care units reduce the complication rates of those patients and their ultimate length of stay in the intensive care unit. Distant healing touch and prayer seem to work through similar mechanisms, in their benefits to patients. On the other hand, belief in any specific religion is unnecessary to practice healing touch. Any person can learn and practice healing touch. In fact, most people perform healing touch without knowledge of doing so.

Healing touch may be helpful to maintain normal health in dogs. It also will assist in speeding and maximizing recovery if disease occurs. Since this can be done without risk of injury, it will do no harm; yet healing touch may increase the chances of full recovery. It also helps develop the human-animal bond. The outcome of healing touch is non-judgmental. It is a gift that is shared between the patient and healer.

Summary

Maintaining health is becoming increasingly difficult. All animals are born with a tremendous capacity to heal. In fact, most (up to 80%) patients who experience a temporary illness will overcome the illness without costly intervention. This healing system is now beginning to be understood and involves an integrated system of immune regulation by the body, offering resistance to disease and injury. Unfortunately, this healing system can be overwhelmed by many factors including poor diet, bad hygiene and chronic exposure to environmental stresses. Pollution in the environment leads to internal pollution, as the pollutants are concentrated over time. Internal pollution poisons that healing system. In the worst cases, one of two outcomes can be predicted. The immune system can be increased, leading to chronic immune diseases. Alternatively, the immune system can be shutdown, leading to cancer. It is not always possible to live in a pollution-free environment; it can come into the body through air, food or water. On the other hand, the latter sources of pollution can be minimized through healthy nutrition and safe drinking water.

Traditional Western medicine is excellent in diagnosing disease and in treating acute disease. However, the treatments of chronic immune disease and cancer have yet to achieve the same level of success. Part of this is due to the fact that these conditions respond slowly and best when the healing system is taken into account during the treatment process. Eastern medicine, which involves long-term changes in “life-style”, has many aspects which make it better in treating chronic conditions, since the goal of Eastern medicine is to support the healing system. Integrative medicine combines the best of both Western and Eastern medicine to offer the patient the best chances of returning to health. If an animal breaks its leg, it needs to be taken to an emergency facility to have it diagnosed and “set”. Once this has been performed, then the patient needs to heal, by whatever means supports that best.

Integrative medicine supports the patient, providing both the sophistication of modern care and the wisdom of age-old medicine. We must continually update and expand what upon what has gone before. Things that seemed unimaginable yesterday are the technologies of today; yet, in

medicine, the patient must always come before technology and patient care must provide the best it has to offer. It matters not whether medicine is old or new. It only matters that the patient has the chance to live a long and happy life.