

Nestlé PURINA

Square One

Nutritional firsts and animal health insights from Nestlé Purina

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Tackling Canine Sports Injuries

hen an injury occurs in an athletic or working dog, a canine sports medicine veterinarian can help to pinpoint the problem, begin treatment

and get the dog back on its feet.

"Canine sports medicine focuses on the study of ditions, nutritional factors and physiologic functions of dogs involved in field sports and working endeavors," says Robert Gillette, D.V.M., M.S.E., director of the Sports Medicine Program at Auburn University's College of Veterinary Medicine.

Negative Performance Factors

Gillette cites three negative influences on a dog's performance. Fatigue diminishes the level of performance



by diverting energy and focus away from an activity and to the body so that it can maintain function. Pain causes dogs to alter body movement to minimize discomfort, likely leading to additional gait problems and eventual injury. Lack of drive, when caused by a health condition such as fatigue or pain, diverts attention away from competitive performance or daily task.1

"Animals tend to be stoic and often

keep from showing pain," Gillette says. "Dogs' ability to minimize pain by altering their movement means that owners sometimes are unaware of conditions that can lead to serious injury."

For example, a minor sprain of the right carpus not only creates an

alteration in the movement of that joint but also in the left hip and left tarsus, he says. The back also is affected, since it is the frame through which the alteration is transferred.

"Often the secondary injury is the one presented to the veterinarian, and the original, often minor problem goes unidentified and unaddressed," Gillette says. "I've found that discovering and treating these small problems can result

in much better performance from dogs."

Healthy Body Conditioning

Dogs that are preconditioned for the work they perform are less likely to sustain serious musculoskeletal injuries. "A first step is keeping excess weight off a dog," says Nestlé Purina Nutrition Scientist Arleigh Reynolds, D.V.M., Ph.D., DACVN, an expert

Vet Pets

ichelle Rider, a third-year student at the University of Minnesota and a Nestlé Purina student representative, has a big heart for animals, especially those needing a home. The owner of four dogs, three cats and a green iguana named Paco, Michelle adopted all her animals, except for one, from humane shelters or veterinary clinics.

Some of her pets have special medical needs. Tommy, a small mixed-breed dog, had suffered a traumatic injury that caused pneumothorax. Fred, an orange shorthaired cat, has asthma and chronic obstructive pulmonary disease. Suzy, a brown tabby, has diabetes mellitus and takes insulin daily, and Webster, a black shorthaired cat, has

a megacolon condition that requires three doses of lactulose a day.

'I feel happy knowing that all of these rescues are in a safe home where they are loved," Michelle says. "It takes a lot of time to get everybody cleaned, fed, medicated and groomed, but there is really nothing I would rather be doing."

Michelle feeds the dogs — Abby, Kasey, Lucy and Tommy — Purina ONE brand dog food Lamb & Rice Adult Formula, She feeds Fred, who has difficulty maintaining weight,

Purina Veterinary DietsTM DM Diabetes Management brand Feline Formula and Purina Pro Plan brand canned cat food Turkey Entrée in Aspic. Suzy is fed DM Diabetes Management twice a day to help manage her diabetes mellitus, and Webster is fed *Purina Veterinary Diets*TM OM Overweight Management brand Feline Formula ad libitum because its high fiber content helps to manage his constipation.

Michelle and her husband, James, who is finishing an internal medicine residency at the University of Minnesota, enjoy taking walks with their dogs and watching the dogs and cats play with each other and their toys. "We hope to have a hobby farm sometime in the future where we can adopt some goats, horses, cows and more dogs and cats that are in need of homes — especially if they have 'special needs,'" Michelle says. ■

Nestlé Purina and the AKC Canine Health Foundation Announce Multimillion Dollar Partnership

estlé Purina PetCare and the American Kennel Club (AKC) Canine Health Foundation have announced a multimillion dollar partnership that will extend over several years and will help to advance canine health and research.

Through the partnership, Nestlé Purina and the AKC Canine Health Foundation will work closely together to fund research that could advance the prevention and treatment of disabling and fatal canine diseases, such as epilepsy, heart and orthopedic conditions and cancer, the No. 1 disease-related death in dogs.

"Together with the AKC Canine Health Foundation, we intend to make great strides in furthering research directed toward preventing and treating canine diseases," says Dan Christian, D.V.M. Executive Director of the Purina Pet Institute, "We are proud to announce this important partnership that continues Nestlé Purina's dedication to the advancement of pet health through science and research."

"Through the years, Nestlé Purina's support of research, conferences and various programs has contributed a great deal to improving the quality of life for dogs and their owners," says Howard Falberg, president of the AKC Canine Health Foundation. "We are honored to work with them in this unique and powerful partnership."

Since 1997 Nestlé Purina has supported numerous programs and research efforts of the AKC Canine Health Foundation. These include sponsoring the National Parent Club Canine Health Conference, which is held every two years in St. Louis; providing canine reference genetic material to researchers worldwide through the Purina DNA Distribution Center; and providing funding to help initiate the Search-and-Rescue Dog Health Fund. This fund supports two three-year studies aimed at learning the health impact on dogs that worked at Ground Zero and the Pentagon following the Sept. 11 terrorist attacks.

The AKC Canine Health Foundation is the largest nonprofit organization in the world that funds exclusively canine health research. Since its beginning in 1995, the organization has raised more than \$8.7 million for over 180 canine health research



Michelle Rider, and her husband, James.

Upcoming Nestlé Purina Veterinary College Events

April

2-3

Virginia-Maryland Regional College of Veterinary Medicine Nestlé Purina Veterinary Communications Manager Steven Cohn, D.V.M., will present three hours of lectures on feline diabetes, obesity and the Purina Life Span Study as part of the college's nutrition curriculum

4 Mississippi State University Nestlé Purina Regional Veterinary Communications Manager Laura Eirmann, D.V.M., will present a dinner lecture titled "Pet Food 101"

5 Cornell University & North Carolina State University

5-6 *University of Wisconsin*Nestlé Purina sponsors

Nestlé Purina sponsors an animal behavior course open to all veterinary students

8
Washington State
University
Nestlé Purina Veterinary
Communications Manager
Elizabeth McKenna, D.V.M.,
presents a lecture titled
"Pet Food 101." Lunch is
provided.

8-9

Virginia-Maryland
Regional College of
Veterinary Medicine
Nestlé Purina Veterinary
Communications Manager
Steven Cohn, D.V.M., will
present a seminar on the
Purina Life Span Study on
April 8. Be sure to visit
the Nestlé Purina booth at
Pharmacy Day on April 9

continued on page 3



Web Site to Check Out:

To learn more about *Purina Pro*Plan brand cat and dog foods,

visit www.proplan.com.

Canine Sports Injuries from page 1

in canine performance and nutrition. "An overweight dog already bears more weight on all of its joints than was intended. And since athletic dogs perform physically challenging tasks, that means even a little bit of extra weight can increase the risk of injury."

Reynolds emphasizes, however, that good body condition in a dog goes well beyond weight management to include elements such as muscle mass and nutrition. "Whether the dog is a Pointer, Retriever or another type of working dog, there is an ideal body condition (see the Nestlé Purina Body Condition System, right) that helps it to perform at its best while staying injury free," he explains.

Another point Reynolds makes is the difference between conditioning and performing. Conditioning prepares a dog to perform, but it does not mean pushing it to the limit of what it can do. Rather, conditioning is the process of getting dogs' joints and muscles in good shape so that when they are asked to do something that takes great physical effort, they are less likely to get hurt.

Finally, Reynolds offers a nutritional tenet for a well-conditioned dog: the proper food at the right time and in the appropriate amount. "Dogs like Pointers that run long distances may need more fat in their diet and consequently more protein. Retrievers' powerful bursts of energy mean they may need help replacing their muscle stores of sugar through carbohydrate supplementation within 15 minutes to a half hour after exercising, providing the dog has recovered and its breathing and temperature have returned to normal. Understanding dogs' particular nutritional needs is integral to their being physically fit."

Common Injuries

Although injuries in sporting dogs often relate to the type of activity for which they are trained, generally the most common areas of injury are the carpus, foot (pads and toes), shoulder and stifle. Among the most well-known injuries, especially for those working with Retrievers, is anterior cruciate ligament (ACL)

🔀 Nestlé PURINA **BODY CONDITION SYSTEM** Ribs, lumbar vertebrae, pelvic bones and all bony prominences evident from a distance. No discernible body fat. Obvious loss of muscle mass. UNDERFED Ribs, lumbar vertebrae and pelvic bones easily visible. No palpable fat. Some evidence of other bony prominence Minimal loss of muscle mass. Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones becoming prominent. Obvious waist and abdominal tuck. Ribs easily palpable, with minimal fat covering. Waist easily noted, viewed from above. Abdominal tuck evident. EAL Ribs palpable without excess fat covering. Waist observed behind ribs when viewed from above. Abdomen tucked up when viewed from side. Ribs palpable with slight excess fat covering. Waist is discernible viewed from above but is not prominent. Abdominal tuck apparent. Ribs palpable with difficulty; heavy fat cover. Noticeable fat deposits over lumbar area and base of tail. Waist absent or barely visible. Abdominal tuck may be present. OVERFED Ribs not palpable under very heavy fat cover, or palpable only with significant pressure. Heavy fat deposits over lumbar area and base of tail. Waist absent. No abdominal tuck. Obvious abdominal distention may be present. 8 Massive fat deposits over thorax, spine and base of tail. Waist and abdominal tuck absent. Fat deposits on neck and limbs. Obvious abdominal distention validated on documented in the following politications: Number D, Borgtan M, Myeys T, et. al. Comparison of body fat estimates by dual-energy s-ray absorptioneity and destermin cubic dislation in citien connect disp. Comparation 2001; 22 (794:70 April 1972; 22 (1) 15 (1) 15 (1) 16 (1)

tears. Often caused by a sudden twisting motion of the stifle, ACL tears are one of the major causes of arthritis in the canine knee joint. If a tear occurs in one knee, the ligament in the other knee is likely to tear sometime in the future.

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"There are two theories about why this is true. One is that it is genetic, meaning the structure of a dog's stifle may predispose it to this injury," Gillette says. "The other is that the injury can change a dog's gait, likely putting more strain on the opposite knee. What we are seeing, however, is that it depends on the reason for the ACL tear. If over a period of time the stifle's structure produces an ACL tear, it will likely happen in the

other knee. If the tear is the result of a traumatic event, more than likely the other knee will not go unless it also sustains trauma."

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Even though ACL tears are well-known and relatively common, Gillette indicates there are other injuries that are seen more often but receive less attention. Among those are pad abrasions and lesions, shoulder muscle soreness, and toe and nail bed injuries.

Reprinted from the January 2003 issue of the Purina Pro Club Sports Group Update.

Gillette, RL. "Canine Sports Medicine Overview." www.SportsVet.com.

Purina Pro Plan Performance Formulated for Hardworking Dogs

anine athletes burn energy at a tremendously higher rate than sedentary dogs.

Their potential to maximize performance often relates to receiving an appropriate balance of energy nutrients based on the energy demands of the sport in which they compete.

Purina Pro Plan brand Performance Formula is formulated exclusively for hardworking and highly active dogs. Pro Plan Performance also is suitable for pregnant or lactating bitches and for dogs that compete in conformation shows because it offers extra energy and provides complete and balanced nutrition.

With an optimal 30 percent protein-to-20 percent fat ratio, *Pro Plan* Performance helps hardworking dogs maintain lean body mass and maintain energy and endurance. These ratios were scientifically calculated based on the calories from protein needed for a hardworking dog.

Made with real chicken as the No. 1 ingredient, Pro Plan



Performance is exceptionally palatable. The diet helps to replace amino acids and carbohydrates used during exercise to help facilitate rapid recovery after strenuous activity. Complete nutrition with vital antioxidants helps support a healthy immune system.

Pro Plan Performance is nutrient-dense, making it highly digestible for maximum nutrient delivery and small, firm stools, and it contains carefully balanced levels of calcium and phosphorus and other minerals for strong bones and teeth. Appropriate levels of vitamin A and omega-6 fatty acids help to promote healthy skin and lustrous coat

Purina Pro Plan is available in pet specialty stores, from veterinarians and feed dealers. For additional information about Purina Pro Plan, please contact a Pro Plan customer service

representative at 1-800-PRO-PLAN (1-800-776-7526) or visit the *Pro Plan* Web site at www.proplan.com. ■

Veterinary Nutritionist Studies Canine Performance

utrition and conditioning for optimal canine performance are topics close to the heart of Nestlé Purina Nutrition

heart of Nestlé Purina Nutrition Scientist Arleigh Reynolds, D.V.M., Ph.D., DACVN. Based in Salcha,

Alaska, Reynolds is an avid competitor in the International Federation of Sled Dog Sports (IFSS) championships. In 1998, his team won the IFSS World Cup, and since the inception of the series in 1996, his team consistently has placed among the top three finishers.

As a Nestlé Purina Nutrition Scientist, Reynolds conducts nutritional studies to help pro- DACVN mote the health of growing and working dogs, specifically using the working dog model to study the role nutrition plays in helping dogs cope with stress. Having received a veterinary degree in 1986 and a doctoral degree in nutrition and biochemistry in 1992 from Cornell University in Ithaca, N.Y., Reynolds has studied nutrition and performance since he was a graduate student. He lists his research and teaching interests



Arleigh Reynolds, D.V.M., Ph.D., DACVN

as clinical nutrition, exercise physiology, metabolic diseases of domestic animals, energy metabolism and general physiology.

Feeding for performance is as important as conditioning and training,

Revnolds says, "You want to feed a working dog a complete and balanced diet formulated for performance. If a diet does not contain enough protein, muscle mass may be depleted, increasing the risk of soft tissue injuries, and immune function may be impaired. Carbohydrates also are important for maximum power output, especially when a dog is

performing events over several days.

"Dogs are capable of tremendous physical feats," he says. "To help dogs meet their potential, it's important not to push to the limit and to build a program that incorporates preparing a dog mentally, physically and nutritionally."

Raised in a small town outside Saratoga Springs, N.Y., in the foothills of the Adirondack Mountains, Reynolds wanted to be a veterinarian since age 5. His family had more than 100 rabbits, plus chickens, ducks, pheasants, pigeons, dogs and cats. Caring for the animals was an activity Reynolds and his father shared.

Prior to becoming a Nestlé Purina Nutrition Scientist in 1998, Reynolds researched a variety of feline and canine nutrition topics. Among the canine topics he studied were: the effect of training on thyroid function in sled dogs; hydration of racing sled dogs; the effect of fat intake on an animal's maximum capacity to metabolize oxygen; the effect of post-exercise carbohydrate supplementation on muscle glycogen repletion; and protein requirements in working dogs.

Reynolds currently is a member of the board of directors of the International Sled Dog Veterinary Medical Association and of the International Federation of Sled Dog Sports Animal Welfare and Sports Medicine Committees. He frequently gives talks to breed associations and was the keynote speaker at the 2002 Purina Sporting Dog Summit, an educational seminar for dog trainers and handlers on conditioning, training and nutrition.

New Jersey Veterinary Foundation Inducts Five New Members Into Animal Hall of Fame

our dogs and a horse were recently inducted into the New Jersey Veterinary
Foundation's (NJVF) Animal Hall of Fame. Nominated by New Jersey veterinarians, the animals were chosen based on their contributions to their owners and the community.

"Veterinarians know how much people love animals," says Neal Beeber, D.V.M., chairman of the New Jersey Veterinary Foundation. "The Hall of Fame is an opportunity to publicly acknowledge the special relationships that develop between people and animals, and the comfort, loyalty and friendship that each offers the other."

Sponsored in part by
Nestlé Purina PetCare, the
NJVF Animal Hall of Fame
was begun eight years ago to showcase examples of the human-animal
bond. "Nestlé Purina is proud to be
a continuing sponsor of this heartwarming event," says Laura Eirmann,
D.V.M., Nestlé Purina Regional
Veterinary Communications Manager.
"The Hall of Fame is a celebration of
the important role that animals play in
our lives and the special relationship
between veterinarians and their clients."

The winners were chosen in four categories: companion, therapy, professional and hero. They join more than 50 previous inductees into the Animal Hall of Fame. Winners were presented with a plaque, a medal and a commemorative video. Photographs and biographies of the winners may be viewed at www.NJVMA.org.

The 2003 winners are:

 "Baxter," a 5-year-old Pekingese owned by Pam McCarthy of Bayonne, N.J., who won in the companion category. Abandoned



Hall of Fame inductee Baxter accepts his award with owner Pam McCarthy. Dr. Brian Voynick, emcee for the event, is in the background.

after he was hit by a car and permanently paralyzed in his back legs, Baxter now gets around with a dog cart. He shows an incredible zest for life as he participates in charity work, teaching others about unconditional love, forgiveness and acceptance.

 "Curtsey," a 7-year-old Australian Shepherd/Chow mixed-breed dog owned by Tara McCullough of Pennington, N.J., who won in the therapy category. Sensitive and intuitive, Curtsey attends a school for children with learning disabilities, where she provides love and support to children who struggle academically and helps educate them about positive social behavior.

 "Cherokee," a 26-year-old half-Arabian horse owned by the Hunterdon County Therapeutic Riding Program in Pittstown, N.J., who also won in the therapy category. Like many of the students in the riding program, Cherokee is handicapped, having lost an eye in a pasture accident. She has helped many students build self-confidence, particularly one young boy who is

visually impaired due to a

brain tumor.
• "Daytona"

• "Daytona," a 6-year-old Dalmatian owned by Alison Cozzolino of Linwood, N.J., who won in the professional category. Daytona takes part in fire safety programs by teaching

children how to stop, drop and roll and how to crawl on their bellies if there is smoke in a room.

"Dino," a 9-year-old German Shepherd Dog owned by David Donow of Mahwah, N.J., who won in the hero category. A member of the Bergen County Police Department Canine Unit Dino, will retire later this year. Dino has earned the title hero numerous times by putting his life on the line to protect his partner and fellow officers.

The animals were honored in March at a program attended by more than 400 veterinarians, veterinary technicians and guests. Photographer Kim Levin, who specializes in pet portraits that capture the unique personality of animals, was the keynote speaker.

9
University of Wisconsin
Visit the Nestlé Purina
booth at Product Day

12Washington State
University

Visit the Nestlé Purina booth at Open House and don't miss performances by the Purina Incredible Dog Team at 11 a.m., 1 p.m. and 3 p.r.

17
University of Pennsylvania
Nestlé Purina Nutrition
Scientist Arleigh Reynolds,
D.V.M., Ph.D., DACVN, and
Nestlé Purina Regional
Veterinary Communications
Manager Laura Eirmann,
D.V.M., will lecture on
pediatric nutrition

18–19
University of Florida
Visit the Nestlé Purina
booth at Product Day
on the 18th and at Open
House on the 19th

22 Cornell University Nestlé Purina Regional Veterinary Communications Manager Laura Eirmann, D.V.M., will lecture on "When Less is More: Results of a 14-Year Longevity Study"

Colorado State University
Nestlé Purina Veterinary
Communications Manager

Elizabeth McKenna, D.V.M., presents a lecture titled "Pet Food 101." Lunch is provided.

26-27

University of California Davis Nestlé Purina helps

Nestlé Purina helps sponsor the sixth annual Canine Medicine & Behavior Symposium

May

2

Nestlé Purina sponsors the Coating Ceremony



For nutritional information or answers to questions about *Purina Veterinary Diets™* brand Canine and Feline formulas, you may call the Purina Veterinary Resource Center at 1-800-222-VETS (8387) weekdays from 8 am to 4:30 pm CST

Vet School Briefs



Congratulations and best wishes to all veterinary graduates as you begin longawaited careers!



Visit www.purinavets.com for the latest clinical and nutritional research, plus educational information, profiles of Purina Veterinary Diets⁵⁰ brand canine and feline formulas, clinical practice tips and links to useful sites. To access the Web site, use "purinavets" for your user name and "nutrition" for your password.

Nestlé Purina Funds Nutrition Center at Tufts University

new nutrition center funded by Nestlé Purina PetCare at Tufts University's Foster Hospital for Small Animals in North Grafton, Mass., is helping to enhance the veterinary nutrition program.

The Tufts Nutrition Center, which opened in January, is conveniently located within the teaching hospital where Tufts clinicians treat more than 22,000 animals a year. Efficiently organized to streamline diet preparation, the Nutrition Center promotes the teaching of different canine and feline diets and their applications in wellness management and dietary management of certain health conditions.

Nestlé Purina Regional Veterinary Communications Manager Laura Eirmann, D.V.M., says, "Both Tufts University and Nestlé Purina have the mutual goal of better understanding the role of nutrition, not only in the maintenance of healthy pets but also in the critical care management and recovery of ill cats and dogs. The Tufts Nutrition Center is an opportunity for both institutions to share the science that helps to achieve this goal."

Lisa Freeman, D.V.M., Ph.D., DACVN, associate professor of clinical sciences says, "The Nutrition Center is a boost to our nutrition program. While the former nutrition area was located in a small part of one of our hospital wards, the new Nutrition Center is both convenient and beautifully organized."

Besides having a sleek appearance and efficient organization, the Nutrition Center features Plexiglas canisters for holding and dispensing dry formulas and glide-out vertical drawers with adjustable shelves for various can sizes and boxes of softmoist product. Modules containing



The Tufts Nutrition Center in the Foster Hospital for Small Animals.



Daniel L. Chann, D.V.M., Laura Eirmann, D.V.M., and Lisa Freeman, D.V.M., Ph.D., D.ACVN, at the open house for the Titls Nutrition Center. Chann is the Nestlê Purina emergency/critical care and nutrition resident at Infls, the first residency of its kind in the country.

wire and Plexiglas gravity-fed can dispensing units ensure stock rotation and fresh product usage.

Appliances include a dishwasher, refrigerator, microwave oven, blender and a recycle center. A computer center allows students to access the latest nutrition information, use nutrition software, and calculate nutritional requirements for patients.

The Tufts Nutrition Center is one of four veterinary nutrition centers nationwide that Nestlé Purina has funded through the Nestlé Purina Veterinary College Program. Others are located at Michigan State University, Colorado State University, and the University of California-Davis.

Students Take Time Out for Fun At SAVMA Symposium



Besides attending lectures and wet labs, students participated in athletic and academic competitions, including the SAVMA Challenge sponsored by Nestlé Purina, and field trips. A highlight was the opening gala Nestlé Purina Casino Night, where students played blackjack, roulette and poker to win prizes. Music and a buffet dinner helped to create a festive atmosphere.

Nestlé Purina was a Diamond Level Sponsor — the highest level of sponsorship — of the symposium. Among the giveaways at the Nestlé Purina booth were copper coffee mugs, syringe-shaped highlighters and squeezable "stress" bones, plus literature on *Purina Veterinary Diets™* brand Canine and Feline Formulas, the Purina Life Span Study, and Body Conditioning Score charts revised to reflect learnings from this landmark study.

Additionally, three veterinary students won handheld computers in daily drawings held at the Nestlé Purina booth. The winners were Julie Kroll of the University of Illinois, Rosslyn Biggs of Oklahoma State University and Caitlin Roberts of the University of Pennsylvania.

Clockvise from top: Students from the Uniwersity of Georgia try their hands at blackjack at the Nestlé Purina Casino Night. Texas A&M students take a moment to smile fof a photograph. The Nestlé Purina booth was the place to go each day of the symposium to receive prizes

Mentor Day at Colorado State University Benefits Students and Mentors

eterinary students and their mentors — practicing veterinarians who are members of the Colorado Veterinary Medical Association — took part in Mentor Day on March 29 at Colorado State University College of Veterinary Medicine.

"The idea was to foster the relationship between the mentors and students during the full day of events," says second-year student and organizer Scott Rizzo. The program included lectures and a wet lab on radiosurgery, plus opportunities for students and mentors to work together and for students to ask their mentors questions about their work.

The Mentor Program, which began a few years ago, pairs students with veterinarians who practice in their field of interest. Students are matched with veterinarians after completing a questionnaire. Participating veterinarians include general practitioners, epidemiologists, surgeons, radiologists, dermatologists, ophthalmologists, pathologists, and industry veterinarians. Students meet with their mentors at their veterinary clinics or at local veterinary conferences. Currently, 94 veterinary students take part in the program.

Nestlé Purina was one of the sponsors of Mentor Day.