manual platelet count dog

manual platelet count dog is a crucial diagnostic procedure in veterinary medicine, helping veterinarians assess the platelet levels in canine blood samples. Platelets play a vital role in blood clotting and overall health, and abnormal counts can signal underlying disease or bleeding disorders. This comprehensive guide explores the importance of manual platelet counting in dogs, its step-by-step methodology, interpretation of results, and potential challenges. Readers will also discover how manual platelet counts compare to automated methods, common causes of platelet abnormalities in dogs, and practical tips for accurate laboratory assessment. Whether you're a veterinary professional, student, or a concerned pet owner, this article provides all the essential information you need to understand and utilize manual platelet count procedures effectively.

- Understanding Platelets in Dogs
- Importance of Manual Platelet Count Dog
- Manual Platelet Counting Methodology
- Interpreting Platelet Count Results
- Common Causes of Platelet Abnormalities in Dogs
- Manual vs. Automated Platelet Counting
- Tips for Accurate Platelet Count in Dogs
- Frequently Asked Questions About Manual Platelet Count Dog

Understanding Platelets in Dogs

Platelets, also known as thrombocytes, are small, disk-shaped cell fragments circulating in canine blood. Their primary function is to initiate and support blood clot formation, preventing excessive bleeding when injuries occur. Unlike other blood cells, platelets do not have a nucleus and are produced in the bone marrow from precursor cells called megakaryocytes. Healthy dogs typically maintain a platelet count ranging from 150,000 to 400,000 per microliter of blood.

Adequate platelet levels are essential for maintaining proper hemostasis. Low platelet counts can result in spontaneous bleeding, while high platelet counts may increase the risk of abnormal clotting. Regular evaluation of

platelet numbers is crucial for detecting diseases such as immune-mediated thrombocytopenia, bone marrow disorders, and certain infectious diseases.

Importance of Manual Platelet Count Dog

Manual platelet count dog procedures are considered the gold standard in veterinary hematology for assessing platelet levels. Automated analyzers, while convenient, can sometimes provide inaccurate results due to platelet clumping or interference from other cell types. Manual counting allows for direct visualization and accurate evaluation, making it particularly valuable in cases where precise platelet quantification is critical for diagnosis and treatment.

Veterinarians rely on manual platelet counts to assess clinical conditions such as unexplained bleeding, bruising, or when a dog presents with symptoms suggestive of a clotting disorder. It is also useful in monitoring response to therapy in conditions affecting platelet production or destruction. The manual approach provides a reliable baseline, especially when automated results are flagged as questionable.

Manual Platelet Counting Methodology

Sample Collection and Preparation

Accurate manual platelet counting begins with proper blood sample collection. Blood is typically drawn into tubes containing anticoagulant, such as EDTA, to prevent clotting. Gentle handling is essential to minimize platelet clumping and ensure representative results.

Blood Smear Technique

A thin blood smear is prepared on a clean glass slide by placing a drop of blood near one end and spreading it with another slide at a 30—45 degree angle. The smear should be air-dried and stained using a Romanowsky-type stain, such as Wright-Giemsa, which highlights platelets and other blood cells for microscopic evaluation.

Microscopic Examination and Counting

Under oil immersion (1000x magnification), platelets appear as small, pale purple structures. The technician counts the number of platelets in 10 consecutive high-power fields (HPFs) and calculates the average. This average is then multiplied by a conversion factor to estimate the platelet count per

microliter of blood.

- Prepare and stain a high-quality blood smear.
- Count platelets in 10 HPFs at 1000x magnification.
- Calculate the average platelet number per field.
- Multiply by conversion factor (usually 15,000–20,000) to estimate total count.

Interpreting Platelet Count Results

Normal Range for Platelet Counts in Dogs

The reference range for platelet counts in healthy adult dogs is generally 150,000–400,000 platelets per microliter. Values outside this range may indicate underlying health issues requiring further investigation.

Thrombocytopenia: Low Platelet Count

Thrombocytopenia is defined as a platelet count below the normal range. It can result from immune system disorders, bone marrow disease, infections, or medication side effects. Dogs with low platelets may exhibit symptoms such as petechiae (small red spots), unexplained bruising, or excessive bleeding.

Thrombocytosis: High Platelet Count

Thrombocytosis occurs when platelet numbers exceed the normal range, and may be caused by inflammation, certain cancers, or after major blood loss. Although less common, high platelet counts can lead to abnormal clot formation and increased risk of thromboembolic events.

Common Causes of Platelet Abnormalities in Dogs

Immune-Mediated Thrombocytopenia

This condition arises when a dog's immune system mistakenly attacks and destroys its own platelets. It is one of the leading causes of thrombocytopenia in dogs and often requires long-term management.

Infectious Diseases

Certain infections, such as ehrlichiosis, anaplasmosis, and leptospirosis, can lead to decreased platelet production or increased destruction. Parasites like Babesia may also contribute to low platelet counts.

Bone Marrow Disorders

Diseases affecting the bone marrow, such as leukemia, lymphoma, or aplastic anemia, impair the production of platelets and other blood cells, resulting in persistent abnormalities.

- 1. Immune-mediated conditions
- Infections (bacterial, viral, parasitic)
- 3. Bone marrow suppression or disease
- 4. Drug-induced platelet destruction
- 5. Severe inflammation or neoplasia

Manual vs. Automated Platelet Counting

Advantages of Manual Platelet Count Dog

Manual platelet counting provides direct visualization, reducing errors from platelet clumping, large platelets, or misidentification by automated machines. It is especially reliable when automated results are flagged or inconsistent.

Limitations and Challenges

While manual counting is accurate, it is more time-consuming and requires experienced technicians. Artifacts, improper smear preparation, or staining errors can affect results. Automated analyzers offer rapid results but may be less reliable in certain canine samples.

When to Prefer Manual Methods

Manual counts are preferred in cases of suspected platelet disorders, abnormal automated results, or when high precision is needed for clinical

Tips for Accurate Platelet Count in Dogs

- Collect blood gently to minimize platelet clumping.
- Use appropriate anticoagulant (EDTA) for sample preservation.
- Prepare and stain high-quality blood smears.
- Count platelets in multiple fields for accuracy.
- Ensure technician training in identification and counting.
- Compare manual results with clinical signs and automated counts when possible.

Following these steps helps ensure reliable results and supports effective clinical decision-making.

Frequently Asked Questions About Manual Platelet Count Dog

Q: Why is manual platelet count important in dogs?

A: Manual platelet count is critical for accurately diagnosing platelet disorders in dogs, especially when automated analyzers may be unreliable due to clumping or large platelets.

Q: What is the normal platelet count range for dogs?

A: Healthy dogs typically have platelet counts between 150,000 and 400,000 per microliter of blood.

Q: How is a manual platelet count performed in dogs?

A: A technician prepares a stained blood smear and counts platelets under a microscope in several high-power fields, then calculates the total using a conversion factor.

Q: What causes low platelet counts in dogs?

A: Low platelet counts may result from immune-mediated diseases, infections, bone marrow disorders, or drug side effects.

Q: How do manual and automated platelet counts differ in accuracy?

A: Manual counts are generally more accurate in dogs because they allow for direct visualization and do not misidentify clumped or large platelets as other cells.

Q: When should a veterinarian choose manual platelet counting over automated methods?

A: Manual counting is preferred when automated results are questionable, in cases of suspected platelet disorders, or when high precision is necessary.

Q: Can platelet clumping affect the results of a manual count?

A: Yes, platelet clumping can lead to underestimation of platelet numbers; careful blood collection and smear preparation reduce this risk.

Q: What symptoms suggest a dog may have abnormal platelet counts?

A: Symptoms include unexplained bleeding, bruising, petechiae, or blood in urine and stool.

Q: Are there diseases that cause high platelet counts in dogs?

A: Yes, conditions such as inflammation, certain cancers, or recovery from blood loss can cause thrombocytosis (high platelet counts).

Q: How often should platelet counts be checked in dogs with bleeding disorders?

A: Platelet counts should be monitored regularly as advised by a veterinarian, especially during treatment or if clinical signs change.

Manual Platelet Count Dog

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Manual Platelet Count in Dogs: A Comprehensive Guide for Owners and Veterinarians

Is your canine companion exhibiting unusual lethargy, bruising, or prolonged bleeding? Understanding your dog's platelet count can be crucial in diagnosing and treating a range of health issues. This comprehensive guide delves into the intricacies of a manual platelet count in dogs, explaining the procedure, interpretation, and its significance in veterinary medicine. We'll explore why this test is ordered, what the results mean, and what you can expect during the process.

What is a Manual Platelet Count in Dogs?

A manual platelet count, also known as a manual thrombocyte count, is a laboratory procedure used to determine the number of platelets circulating in a dog's blood. Platelets, or thrombocytes, are tiny blood cells essential for blood clotting. A low platelet count (thrombocytopenia) can lead to excessive bleeding, while an abnormally high count (thrombocytosis) can indicate underlying health problems. Unlike automated methods, a manual platelet count involves direct microscopic examination of a blood smear, offering a more detailed assessment of platelet morphology (shape and size) in addition to the quantity.

Why is a Manual Platelet Count Necessary?

While automated platelet counters are common, a manual platelet count is often preferred in certain situations:

Detecting Platelet Clumping: Automated counters can sometimes misinterpret platelet clumps as single platelets, leading to inaccurate results. Manual examination allows for the identification and accurate counting of individual platelets, even when clumping occurs.

Assessing Platelet Morphology: A manual count allows veterinarians to visually inspect the shape and size of the platelets. Abnormal platelet morphology can be indicative of specific diseases, providing valuable diagnostic information often missed by automated methods.

Confirmation of Automated Results: A manual count can serve as a valuable confirmation or correction of an automated platelet count, particularly when the automated result is unexpected or inconsistent with the dog's clinical signs.

Resource Limitations: In some veterinary clinics with limited resources, a manual platelet count may be the only available method for platelet quantification.

The Procedure: How is a Manual Platelet Count Performed?

The procedure begins with collecting a blood sample from your dog, typically a venous blood draw. The sample is then prepared by creating a blood smear on a microscope slide. This involves spreading a small drop of blood thinly and evenly across the slide. The smear is then stained to enhance visibility of the blood cells under a microscope. A trained technician or veterinarian then examines the stained smear under a microscope, systematically counting the number of platelets within a specific area of the slide. This count is then used to calculate the total platelet count per microliter of blood.

Interpreting the Results: What do the Numbers Mean?

The results of a manual platelet count are typically reported as the number of platelets per microliter (μ L) of blood. The reference range (considered normal) varies slightly between laboratories and may depend on the dog's breed, age, and other factors. However, a generally accepted range is between 150,000 and 450,000 platelets/ μ L.

Thrombocytopenia (low platelet count): A count below the reference range suggests a decreased production of platelets, increased destruction of platelets, or increased platelet consumption (e.g., due to clotting). This can be caused by various conditions including infections, autoimmune diseases, certain medications, bone marrow disorders, and disseminated intravascular coagulation (DIC).

Thrombocytosis (high platelet count): An elevated platelet count can indicate inflammation, infection, certain cancers, or other underlying medical conditions.

What to Expect After the Test

Following a manual platelet count, your veterinarian will review the results in conjunction with your dog's clinical history and physical examination findings. Further diagnostic tests may be recommended depending on the platelet count and your dog's symptoms. This may include blood chemistry panels, complete blood counts (CBCs), coagulation tests, bone marrow aspiration, or imaging studies.

Conclusion

A manual platelet count is a valuable diagnostic tool in veterinary medicine, providing critical information about your dog's blood clotting ability. Understanding the procedure, interpretation of results, and the potential causes of abnormal platelet counts is crucial for appropriate diagnosis and treatment. Always consult with your veterinarian if you have concerns about your dog's health, especially if you observe signs of excessive bleeding or bruising. Early detection and prompt veterinary care are essential for the best possible outcome.

FAQs

- Q1: How long does it take to get the results of a manual platelet count?
- A1: The turnaround time can vary depending on the veterinary laboratory's workload, but typically results are available within a few hours to a couple of days.
- Q2: Is a manual platelet count painful for my dog?
- A2: The blood collection procedure may cause some temporary discomfort, but most dogs tolerate it well. Your veterinarian will take steps to minimize any pain or stress.
- Q3: What are the potential risks associated with a manual platelet count?
- A3: The risks associated with a blood draw are minimal and generally include slight bleeding at the puncture site, hematoma formation (bruising), and fainting in some sensitive dogs.
- Q4: Can I request a manual platelet count specifically?
- A4: While automated counters are more common, you can certainly discuss your concerns with your veterinarian and request a manual count, particularly if there are reasons to suspect inaccuracies with automated methods or if detailed platelet morphology is important.
- Q5: How much does a manual platelet count cost?
- A5: The cost varies depending on the veterinary clinic and geographic location. It's best to contact your veterinarian's office for a price estimate.

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criteria, indications for treatment, prognostic factors, treatment recommendations, and special considerations. The authors provide the most accurate and up-to-date information, including well-established treatment regimens for a variety of blood disorders, including iron disorders, bone marrow failure syndromes, platelet and megakaryocytic disorders, hemostasis, thrombosis, and hematologic malignancies. Later chapters review other major subspecialty areas found on the exam including transfusion medicine and hematopoietic cell transplantation. With 200 board-style questions and answers with detailed rationales, Hematology Board Review is the go-to, quick review for any trainee preparing for initial certification and for hematologists or oncologists preparing for recertification. Key Features: Includes 200 board-style questions and answers with rationales Provides key point summaries of each topic area for quick study and easy recall Thorough coverage of hematologic malignancies, blood disorders, transfusion medicine, hematopoietic cell transplantation, and standard treatment regimens Tables providing key data and information related to staging, treatment options, and disease classifications

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manual platelet count dog: <u>Laboratory Urinalysis and Hematology for the Small Animal Practitioner</u> Carolyn Sink, Bernard Feldman, 2004-03 Accompanying CD-ROM contains all of ... the figures of the book, plus 62 additional figures not included in the printed text.--Advertising flyer.

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problems, arranged alphabetically for immediate access. Entries include a definition, synonyms, epidemiology, clinical presentation, etiology and pathophysiology, differential diagnosis, workup, treatment, prognosis and outcome, plus pearls and considerations. Concise descriptions simplify diagnosis and treatment. Section II: Procedures and Techniques offers illustrated, step-by-step instructions for understanding and performing 111 important clinical procedures. Section III: Differential Diagnosis displays nearly every possible cause for 260 different clinical disorders. Section IV: Laboratory Tests summarizes essential information needed for interpreting more than 150 lab tests. Section V: Clinical Algorithms provides decision trees for the diagnostic and therapeutic decision-making processes involved in managing 91 of the most common clinical conditions/disorders. Section VI: Drug Formulary is a compilation of dosages and other relevant information for more than 300 new and current medications. 410 illustrations and photographs depict disease processes and related concepts. A companion website includes the complete text of the book in a fully searchable format, allowing guick access to information, and all of the book's images. It also includes 150 Client Education Sheets, each available in both English and Spanish. Clinical guidance added to diseases and disorders chapters helps you select appropriate tests and treatments for each case. 50 new client how-to handouts are added for a total of 150 client education sheets, helping to improve outcomes by informing clients. Technician Tips are inserted throughout nearly 800 diseases and disorders, providing specialized information for veterinary technicians. Enhanced electronic image collection on the companion website includes color images and additional figures not found in the text.

manual platelet count dog: Ettinger's Textbook of Veterinary Internal Medicine - eBook Stephen J. Ettinger, Edward C. Feldman, Etienne Cote, 2024-01-03 **Selected for Doody's Core Titles® 2024 with Essential Purchase designation in Veterinary Medicine**Now Ettinger's trusted, all-in-one veterinary resource is even better! Trusted by small animal veterinarians for more than 50 years, Ettinger's Textbook of Veterinary Internal Medicine adds new content on the field's leading issues and trends to its unmatched, gold standard coverage of the diagnosis and treatment of medical problems of dogs and cats. Coverage begins with the basics of veterinary medicine, followed by sections on differential diagnosis for chief complaints and for clinicopathologic abnormalities, and continues with techniques, minimally invasive interventional therapies, critical care, toxicology, diseases by body system, and comorbidities. Clinical information is presented in a way that reflects the practitioner's thought process. With each purchase of this two-volume print book, Ettinger's includes access to a fully searchable eBook featuring more than 750 videos that bring procedures to life. - UNIQUE! 50th anniversary edition of this classic textbook. - NEW! Coverage of the latest information and trends includes epilepsy, aerodigestive disorders, patient triage and stabilization, enteric protozoal diseases, pulmonary thromboembolism, point-of-care ultrasounds, immunodeficiencies, and more. - More than 750 original clinical videos are included with purchase of the print book, providing content you can believe in. Forget those time-consuming searches on YouTube, as each video expertly breaks down veterinary procedures and important signs of diseases and disorders that are difficult or impossible to understand from written descriptions alone. - NEW! PDFs in Techniques chapters include a printable pull list of the equipment and materials needed for specific techniques, along with check boxes (accessed through eBook included with print purchase). - eBook version is included with purchase of the print book, allowing you to access all the text, figures, and references, with the ability to search, customize content, make notes and highlights, and have content read aloud. The eBook also offers the complete collection of original video clips, heart sounds, client information sheets, and hyperlinking of references to their source abstracts in PubMed®. - NEW! Additional new material is included on nutritional cardiomyopathy, coronavirus infections, host-microbial interactions in gastrointestinal health, and autonomic nervous system disorders. - More than 200 clinical algorithms aid in disease identification and decision-making. -Fully searchable online text offers guick access to the most important, newest, and relevant veterinary information. - More than 250 client information sheets are available in the eBook (included with print purchase) with short, easy-to-understand clinical descriptions of conditions,

diagnostics, and treatment options; these pages may be downloaded, customized, and printed as client handouts. - Thousands of references for the printed book are accessible online. - Expert contributors from around the world provide practical insight into the latest advances and issues affecting small animal medicine.

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manual platelet count dog: Monitoring and Intervention for the Critically Ill Small Animal Rebecca Kirby, Andrew Linklater, 2016-10-10 Monitoring and Intervention for the Critically Ill Small Animal: The Rule of 20 offers guidance for assessing the patient, interpreting diagnostic test results, and selecting appropriate monitoring procedures. Based on Rebecca Kirby's time-tested Rule of 20, with a chapter devoted to each item on the checklist Provides comprehensive guidance for monitoring a critically ill small animal patient Emphasizes the interplay of each parameter with one another Designed for fast access on the clinic floor, with potentially life-saving ideas, tips, lists and procedures Presents tables, schematics, algorithms, and drawings for quick reference

manual platelet count dog: Trauma Induced Coagulopathy Hunter B. Moore, Matthew D. Neal, Ernest E. Moore, 2020-10-12 The first edition of this publication was aimed at defining the current concepts of trauma induced coagulopathy by critically analyzing the most up-to-date studies from a clinical and basic science perspective. It served as a reference source for any clinician interested in reviewing the pathophysiology, diagnosis, and management of the coagulopathic trauma patient, and the data that supports it. By meticulously describing the methodology of most traditional as well as state of the art coagulation assays the reader is provided with a full understanding of the tests that are used to study trauma induced coagulopathy. With the growing interest in understanding and managing coagulation in trauma, this second edition has been expanded to 46 chapters from its original 35 to incorporate the massive global efforts in understanding, diagnosing, and treating trauma induced coagulopathy. The evolving use of blood products as well as recently introduced hemostatic medications is reviewed in detail. The text

provides therapeutic strategies to treat specific coagulation abnormalities following severe injury, which goes beyond the first edition that largely was based on describing the mechanisms causing coagulation abnormalities. Trauma Induced Coagulopathy 2nd Edition is a valuable reference to clinicians that are faced with specific clinical challenges when managing coagulopathy.

manual platelet count dog: Current Techniques in Canine and Feline Neurosurgery
Andy Shores, Brigitte A. Brisson, 2017-08-31 Current Techniques in Canine and Feline Neurosurgery
offers state-of-the-art, detailed guidance on performing neurosurgical techniques in dogs and cats,
from indications and surgical anatomy to procedures and post-operative care. Presents an
up-to-date, detailed reference on veterinary neurosurgery techniques, covering skills ranging from
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step-by-step descriptions of specific procedures Copublished with the American College of
Veterinary Surgeons Foundation and American College of Veterinary Internal Medicine Offers video
clips on a companion website

manual platelet count dog: Textbook of Veterinary Internal Medicine - eBook Stephen J. Ettinger, Edward C. Feldman, 2010-02-02 Now in its 7th edition, this popular, must-have text remains the only encyclopedic resource for veterinary internal medical problems. The internationally acclaimed gold standard offers unparalleled coverage of pathophysiology, diagnosis, and treatment of diseases affecting dogs and cats, as well as the latest information on the genome, clinical genomics, euthanasia, innocent heart murmurs, hyperbaric medicine, home prepared and raw diets, obesity, botulism, artificial pacing of the heart, cancer vaccines, and more. The 7th edition combines the convenience of a two-volume printed textbook with the enhanced functionality of an Expert Consult website that enables you to electronically search your entire book and study more efficiently. With instant access to the most reliable information available, you'll always be at the forefront of veterinary care! Fully searchable online text provides fast, easy access to the most reliable information in the field. More than 150 clinical algorithms throughout the text aid in disease-identification and decision-making. Expanded online chapter content enhances your understanding through additional text, illustrations, tables, and boxes. Hyperlinked client information sheets streamline reference of specific conditions and enhance communication with clients. Extensive online reference list directs you to full-text PubMed abstracts for additional research. Thoroughly updated and expanded content, including 90 new chapters, addresses the latest developments across the full spectrum of small animal care. Companion Expert Consult website enhances your learning experience with the ability to search the entire electronic text instantly, make notes, and highlight content for easy review. Expert Consult also gives you instant access to: More than 150 procedural videos that guide you step-by-step through essential procedures. An interactive drug formulary that makes it easier to find and cross-reference key drug information. Audio files that help you identify heart abnormalities by their sound.

manual platelet count dog: Red Book Atlas of Pediatric Infectious Diseases American Academy of Pediatrics, 2007 Based on key content from Red Book: 2006 Report of the Committee on Infectious Diseases, 27th Edition, the new Red Bookr Atlas is a useful quick reference tool for the clinical diagnosis and treatment of more than 75 of the most commonly seen pediatric infectious diseases. Includes more than 500 full-color images adjacent to concise diagnostic and treatment guidelines. Essential information on each condition is presented in the precise sequence needed in the clinical setting: Clinical manifestations, Etiology, Epidemiology, Incubation period, Diagnostic tests, Treatment

manual platelet count dog: Rickettsial Diseases Didier Raoult, Philippe Parola, 2007-04-26 The only available reference to comprehensively discuss the common and unusual types of rickettsiosis in over twenty years, this book will offer the reader a full review on the bacteriology, transmission, and pathophysiology of these conditions. Written from experts in the field from Europe, USA, Africa, and Asia, specialists analyze specific patho

manual platelet count dog: The Handbook of Veterinary Care and Management of the

Military Working Dog - Including Anesthesia / Pain Management Standards , 2017-10-17 PREFACE Since 9/11 the veterinary care of Military Working Dogs (MWDs) has assumed a greater importance. The role of the working dog has never been more visible and more appreciated. At this writing there are a large number of MWDs deployed throughout the world in support of the Global War on Terrorism. Many people both in and out of uniform are coming to realize that MWDs are among the most valuable and cost-effective counterterrorism tools we have. Before 9/11 detector dogs and their skills were largely taken for granted, even downplayed. Comments like: "MWDs are low-tech"; and "Dogs will be replaced by sensors, imaging techniques and computers" were not uncommon. Detector dogs have become a very visible front-line protective measure against bomb threats - check out the headlines on suicide bombers to see what our terrorist enemies are up to. Then check out the film clips that show security forces in action - the dogs are everywhere! These are reminders that no other tool in the arsenal can match the efficiency, mobility, adaptability and field readiness of a working dog. So, what's new - why publish a new edition now? Yes 9/11 did change things - this edition now has guidelines for MWDs exposed to Anthrax. This third edition of the Handbook also contains new information about the prophylactic laparoscopic-assisted gastropexy program that aims to protect our most "at-risk" dogs from GDV. We also provide guidelines on transitioning from once daily feeding to feeding two "meals" a day; the Dog Center now feeds over 500 MWDs twice a day. Additionally we have updated information about MWD Adoption - a program that has come of age in the 2 years since the publication of the second edition. Also in an effort to provide a "one-stop" resource for working dog policy, this edition now incorporates topics that were formerly available only as VETCOM policy letters. These and other revisions make this new MWD Handbook one of the most up to date resources for military veterinarians caring for MWD's and other Federal Agency working dogs. All veterinary personnel involved in anesthesia should familiarize themselves with these standards, as some previously used agents (such as butorphanol / acepromazine / glycopyrrolate combination, tiletamine / zolazepam, and xylazine) have been removed from the guidance The world will continue to change and our veterinary care will also change as our knowledge, new technology, and improved therapeutics become available. Our commitment to the health care of MWDs is a constant. Keep up the good work!

manual platelet count dog: Exotic Animal Hematology and Cytology Terry W. Campbell, Krystan R. Grant, 2022-03-29 The newly revised Fifth Edition of Exotic Animal Hematology and Cytology delivers a fully updated new edition of the most complete reference to hematology and cytology in exotic animals. The book features high-quality images and step-by-step descriptions of practical techniques. Organized by animal class to make it easier to quickly find critical information, the authors have included 45 new case studies to highlight the application of the content in a real-world setting. All major exotic animal groups are covered, including mammals, birds, reptiles, amphibians, and fish. Clinicians seeking a decision-making aid for patient workup, treatment, and prognosis will find what they need in Exotic Animal Hematology and Cytology. The book also includes: Thorough cellular descriptions unique to mammalian, avian, herptile, and fish species, with extensive discussions of blood and bone marrow sample collection and hematologic techniques for each group Comprehensive evaluation of the peripheral blood specific to mammals, birds, herptiles, and fish, as well as the evaluation of bone marrow Practical discussions of hematology case studies with applications to common real-world clinical problems Color atlas of hemic cells of select species for quick and easy reference Extensive examinations of cytodiagnosis and exploration of unique features within mammals, birds, herptiles, and fish, as well as cytology case studies and wet-mount cases in fish Access to video clips and additional case reports on a companion website Exotic Animal Hematology and Cytology is an essential reference for veterinary clinical pathologists, anatomic pathologists, clinicians, and technicians, as well as for veterinary students taking courses involving exotic hematology and cytology.

manual platelet count dog: The Canine Thyroid Epidemic W. Jean Dodds, Diana Laverdure, 2011-03 Weight gain, hair loss and behavior changes are symptoms of thyroid problems. Learn how

to recognize and get treatment for this under-diagnosed and misunderstood malady. Easy to read text with color photos and case studies to help you help your dog.

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Peter Hill, Sheena Warman, Geoff Shawcross, 2011-04-18 Focusing on 'day one competencies', this book offers essential guidance to the most common problems encountered in small animal general practice. Addressing 100 core scenarios, it is ideal for the undergraduate or newly qualified vet, and for those seeking an up-to-date refresher. Organized by presenting sign (diarrhoea, itching) or disease (diabetes mellitus, pancreatitis), and with colour illustration throughout, each chapter explains: how to make a diagnosis which interventions are most appropriate in general practice what the vet should say to the client before and after examination The authors also offer invaluable advice on other key topics such as annual health checks, neutering and euthanasia, and they tackle the tough questions: What if it doesn't get better? What is the low cost option? When should I refer?

Never before has so much practical information been brought together in a single volume. Like having an experienced or specialist clinician standing by your side in the consulting room, 100 Top Consultations will become a trusted companion for students and practitioners alike.

manual platelet count dog: Small Animal Surgery. Bloodless Surgery José Rodríguez Gómez, Jorge Llinás, Guillermo C. Couto, 2020-09-14T00:00:00+02:00 José Rodríguez, together with Guillermo Couto and Jorge Llinás, surprises us again with a new volume of the Small Animal Surgery collection, although this time he focuses on the application of bloodless surgery. The author and his colleagues use their wide experience to show readers the importance of ensuring appropriate haemostasis in surgical procedures. The basic principles of haemostasis, their practical application in various clinical cases or the different techniques available are explained throughout the book, and the information is complemented by numerous images that will help the clinician to ensure haemostasis (making knots step by step, surgical procedures shown in sequences of images, etc.). This work also stands out by including high-quality and very didactic videos, with which the reader will be able to gain valuable knowledge.

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