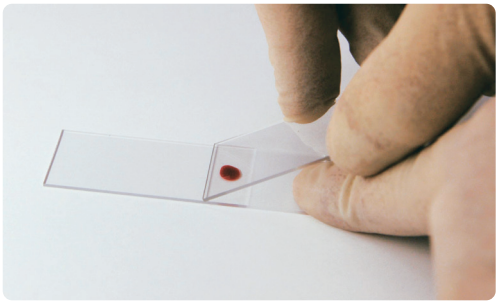
IDEXX

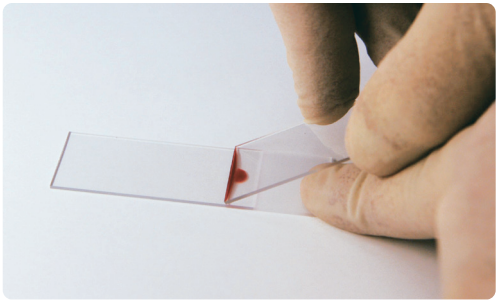
Blood Cell Guide

Making a quality blood film

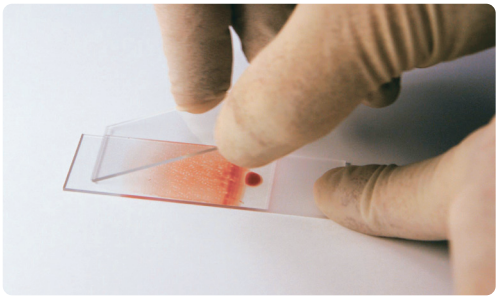
Complement your in-house haematology with a high-quality blood film.



1. Place a small drop of fresh, well-mixed anticoagulated blood on a clean glass slide approximately 2 cm from one end of the slide.
2. Place a clean glass “spreader” slide in front of the drop of blood at an approximate 30° angle to the blood-film slide.*



3. Back the “spreader” slide into the drop of blood.
4. Let the blood spread along the contact line between the two slides; this should take place quickly.



5. With a steady fluid movement, move the spreader slide down the entire blood-film slide, maintaining the angle without lifting the spreader slide. Blood from the drop will follow the spreader slide, placing a thin film on the other slide. The blood film should be 3–4 cm in length.
6. Let the blood film air-dry.†

*For specimens with low haematocrits (anaemia), increase the angle between the slides to make a thicker blood film. For specimens with high haematocrits (dehydration, polycythaemia, etc.), decrease the angle between the slides to make a thinner blood film.

†Ensure that the newly prepared blood film is completely dried before staining is performed. If humidity is high, dry the slide with a slow-speed fan without moisture or heat, or simply wave the blood film in the air. Do not blow-dry.

We have the solution to your veterinary haematology needs

In-house haematology

Whether your practice is small, large or somewhere in between, we've got analysers with cutting-edge technologies to provide you with the best haematology information available, including a five-part differential and an absolute reticulocyte count.

- ProCyte Dx* Haematology Analyser
- LaserCyte* Dx Haematology Analyser

Reference laboratory haematology

All complete blood counts (CBCs) performed at IDEXX utilise the most advanced technology available and include a reticulocyte count (canine/feline only), regardless of anaemia. IDEXX Reference Laboratories offers a choice of a **Standard CBC** or a **Comprehensive CBC**, allowing you to select the best option depending on your patient's needs.

The **Standard CBC** is a cost-effective option for routine pre-anaesthetic or preventive care screening on clinically healthy patients:

- Automated CBC utilising laser flow cytometry with optical fluorescence and species-specific algorithms
- Haemogram with reticulocytes, five-part differential and platelets
- **Add-on Smear Evaluation** test code available if results indicate the need for additional information

The **Comprehensive CBC** is the recommended option for sick patients and when information on cell morphology is desired:

- Blood smear prepared for you by an experienced technician
- Smear evaluation performed by a technician on every specimen; provides valuable information about red blood cell and white blood cell morphology and blood parasites
- Automatic pathologist review performed when results are markedly abnormal based on established guidelines or if unclassified cells are seen

Learn more about how to make the most of your reference laboratory CBC options at **idexx.com/CBC**

IDEXX service and support

We're with you every step of the way:

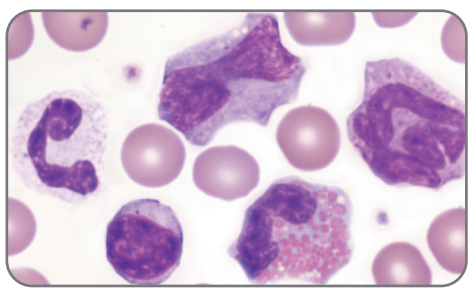
- IDEXX 24/7 customer support
- IDEXX SmartService* Solutions secure online service and support
- VetConnect* PLUS uses cloud-based technology that lets you view all your patients' current and past diagnostic results in one place, with all changes automatically captured.
- Field technical support representatives for consultations
- Access to in-depth feedback from board-certified experts
- Educational opportunities for your entire practice at the IDEXX Learning Centre

Visit **idexx.com** to learn more.

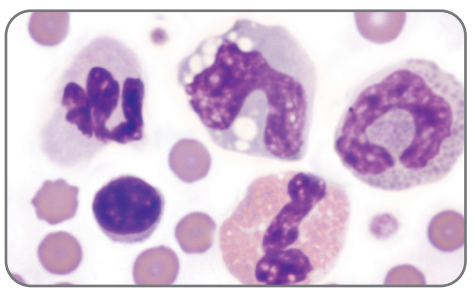
Blood Cell Guide

IDEXX

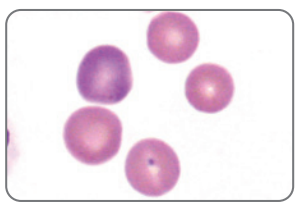
Normal canine

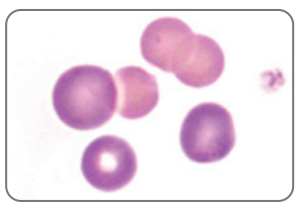


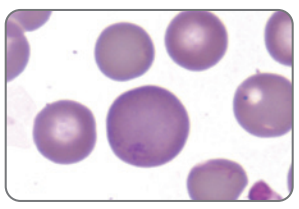
Normal feline

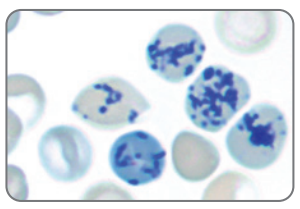


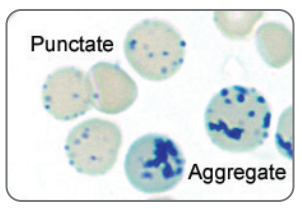
Regenerative response


Mild polychromasia


Marked polychromasia

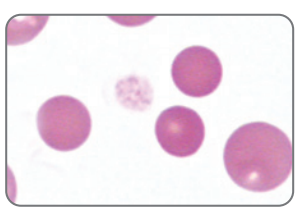

Rapid stain—polychromasia

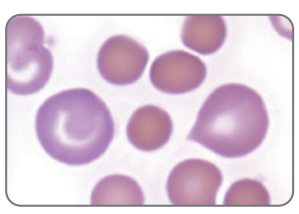

NMB—canine reticulocytes

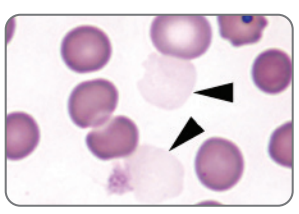


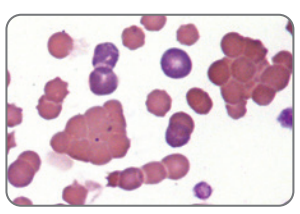
NMB—feline reticulocytes

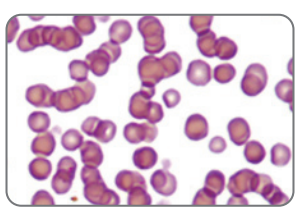
Immune-mediated haemolytic anaemia (IMHA)


Spherocytes with no polychromasia

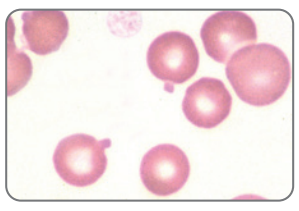

Spherocytes with polychromasia

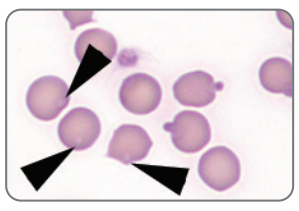

Ghost cells

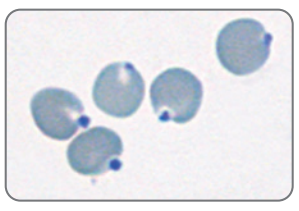

Agglutination (50×)

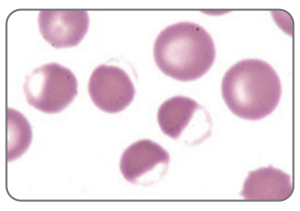

Rouleaux (50×)

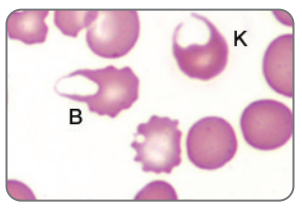
Other poikilocytosis


Canine – two Heinz bodies


Rapid stain – Feline – 3 indistinct (arrows) and 2 obvious Heinz bodies

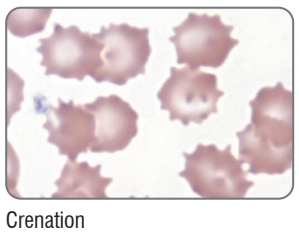

NMB – Heinz bodies

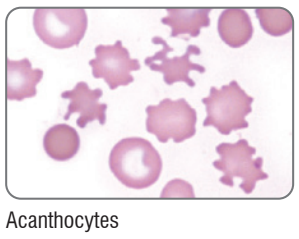

Eccentrocytes*

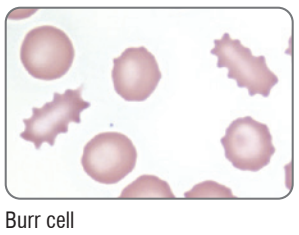


Blister cell and keratocyte

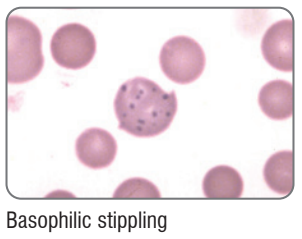
Miscellaneous morphology


Crenation

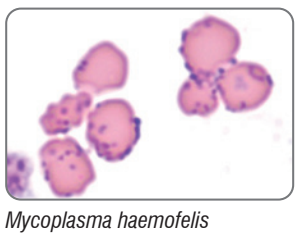

Acanthocytes

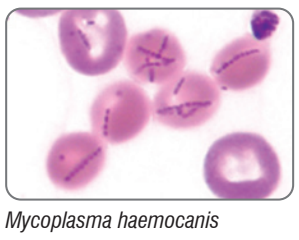

Burr cell

Schistocyte

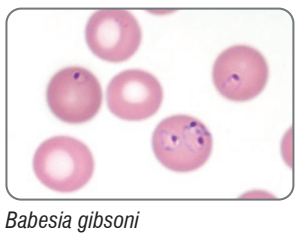

Basophilic stippling

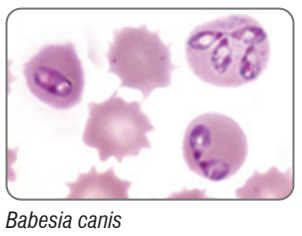
Infectious agents


Mycoplasma haemofelis

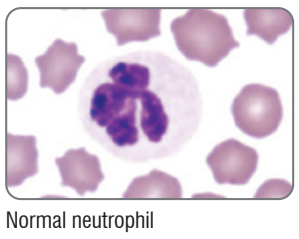

Mycoplasma haemocanis

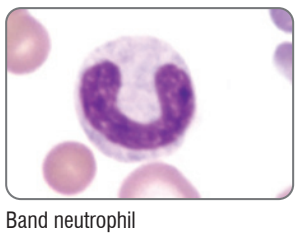
Cytauxzoon felis

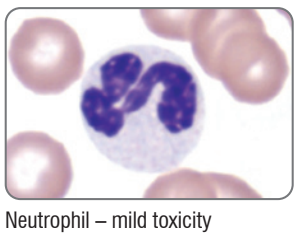

Babesia gibsoni

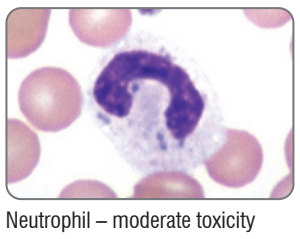

Babesia canis

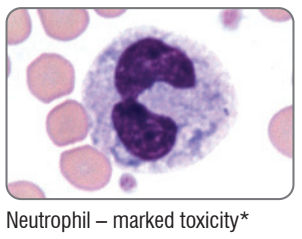
White blood cells

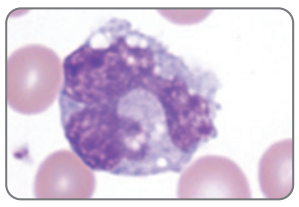

Normal neutrophil

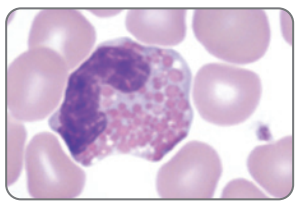

Band neutrophil

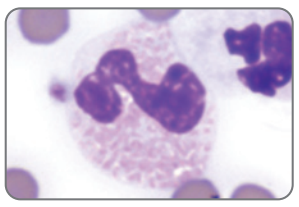

Neutrophil – mild toxicity

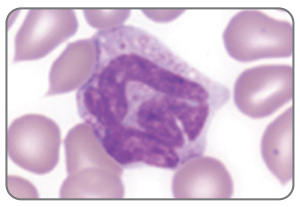

Neutrophil – moderate toxicity

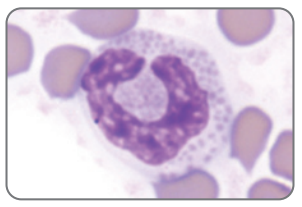

Neutrophil – marked toxicity*

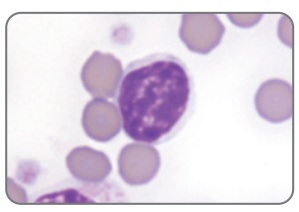

Normal monocyte

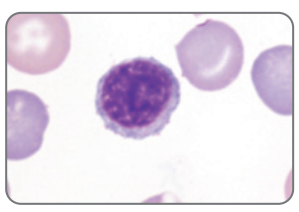

Normal canine eosinophil

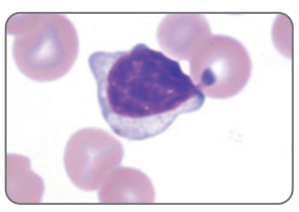

Normal feline eosinophil

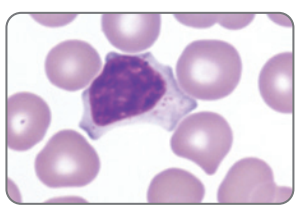

Normal canine basophil

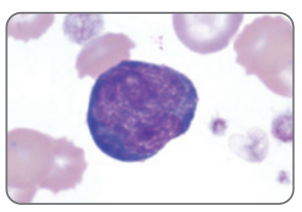

Normal feline basophil


Normal lymphocyte

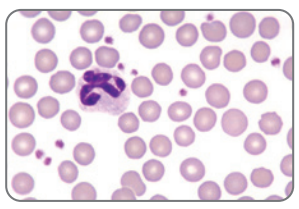

Lymphocyte – mild reactivity

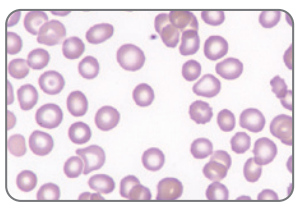

Lymphocyte – moderate reactivity

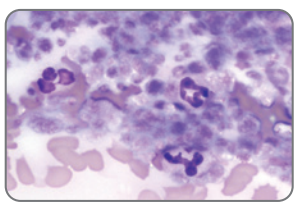

Lymphocyte – moderate reactivity

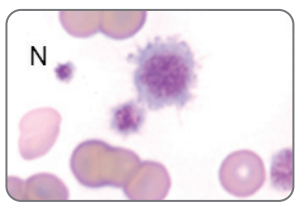

Lymphocyte – marked reactivity

Platelets

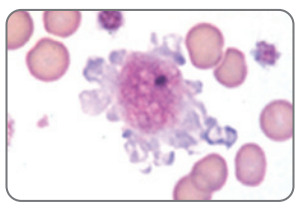

Normal platelet count (50×)


Low platelet count (50×)


Platelet clump (50×)



Normal-sized and large platelets


Large atypical platelet

All images, unless otherwise indicated, are representative of a high-power field of view (100× objective field of view).

Images and information provided by: Dennis B. DeNicola, DVM, PhD, DACVP, Rick L. Cowell, DVM, MS, MRCVS, DACVP, and Michelle Frye, MS, DVM

*Illustration reproduced with permission from Reagan WJ, Rovira AI, DeNicola DB, eds. *Veterinary Haematology: Atlas of Common Domestic and Non-Domestic Species*. 2nd ed. Ames, IA: Wiley-Blackwell; 2008. Copyright 2008 Wiley-Blackwell.

IDEXX **Learning Centre**

Knowledge you can put into practice

Take advantage of a wide range of educational resources, reference materials and events focused on veterinary medicine, veterinary technician training and practice-management tools.

Here are some examples of educational opportunities within haematology. Check our site for availability and dates.

Online courses

- *The IDEXX Guide to Haematology*

Archived webinars

- *Haematology at a Glance: What Are You Missing without a CBC?*
- *Cracking the Code on Characterising Anaemia*
- *Everyday Emergencies – Haematologic Disorders*

Multimedia education

- *Evaluate a Blood Film in Less Than 3 Minutes*
- *New Insight into the Practical Diagnosis of Bleeding Disorders*
- *The Management of Common Bleeding Disorders*

Visit **idexxlearningcenter.com** to see our full listing of available webinars, seminars and online training courses.

© 2023 IDEXX Laboratories, Inc. All rights reserved. • 06-0039352-00
*All ®/™ marks are owned by IDEXX Laboratories, Inc. or its affiliates in the United States and/or other countries. The IDEXX Privacy Policy is available at idexx.com