



## **BRIARPOINTE VETERINARY CLINIC**

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### **THROMBOCYTOPENIA**

#### ***What is thrombocytopenia?***

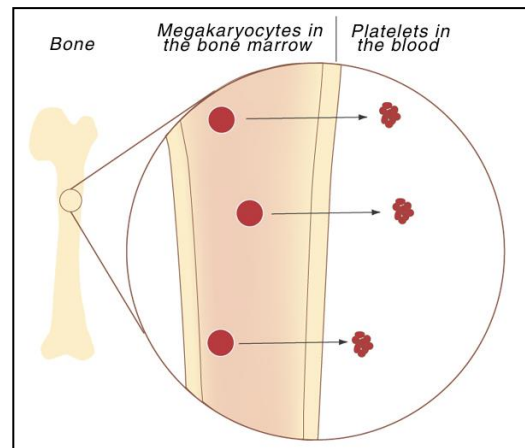
Thrombocytopenia is a decrease in the number of blood platelets or *thrombocytes* circulating in the blood.

#### ***What are platelets?***

Platelets are fragments of cytoplasm from cells called *megakaryocytes* that are produced in the bone marrow. Platelets are an important factor in the blood clotting mechanism, so thrombocytopenia can lead to spontaneous bleeding or bruising.

#### ***What causes thrombocytopenia?***

Any severe or prolonged blood loss, increased internal destruction of platelets, or impaired bone marrow production can lead to short-term (acute) or longer term (chronic) deficiency of platelets.



#### ***What diseases or conditions are associated with thrombocytopenia?***

Many diseases have thrombocytopenia as one component of the condition. For example many serious infections, neoplasia (cancer), immune system disorders, pancreatitis, and various drug therapies such as some anti-cancer treatments can result in thrombocytopenia.

#### ***How common is thrombocytopenia?***

Thrombocytopenia is quite common. Some surveys have shown as many as 5% of all dogs admitted to veterinary hospitals are platelet-deficient.

#### ***How is thrombocytopenia diagnosed?***

A blood test is used to diagnose thrombocytopenia. Platelet counts of less than 20,000 to 30,000 per microliter of blood make spontaneous hemorrhage likely. Additional diagnostic tests are used to investigate the underlying causes of the problem.

#### ***How is thrombocytopenia treated?***

If the blood loss is acute, a blood transfusion may be required. Treatments are primarily aimed at the underlying causes of the problem.

***Can there be bleeding disorders with normal numbers of platelets?***

Yes, if platelet function is impaired. This occurs with a number of drugs including some antibiotics. There are also inherited platelet defects such as *von Willebrand's Disease* (see separate topic sheet). Examples of congenital platelet defects also occur in Otterhounds, Great Pyrenees, American Cocker Spaniels and Basset Hounds. Diagnosis requires tests of platelet function and there are no specific treatments for congenital platelet defects.

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*Edited by John S. Parker, DVM*

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