

# Blood Transfusion in Dogs\*

## Canine Blood Types and Reactions

Seven blood groups have been identified in dogs – called the dog erythrocyte antigen system:

### DEA 1 to 7.

The most clinically relevant blood group is DEA 1 which has three alleles 1.1, 1.2 and 1.3. DEA 1.1 is the most immunogenic.

Adverse events of transfusions have been reported in 3 to 13% of cases.

The theoretic universal donor is negative for DEA 1.1, 1.2, 3, 5 and 7 and positive for DEA 4.

However, in practice, a universal donor can simply be DEA 1.1 negative.

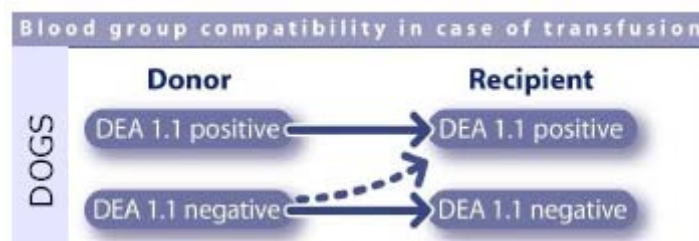
## How canine blood types affect a veterinarian

In most instances a first time transfusion in a dog of unmatched blood will not result in any reaction. However, a USA study has shown that blood transfusions are most often used in traumatic anaemia. Knowing the blood type of the donor will reduce the potential for unwanted complications in such situations.

Transfusion of a dog that has had a previous transfusion can readily result in a transfusion reaction.

Only DEA 1.1 negative dogs should be used as part of a blood donor program.

Neonatal isoerythrolysis is rare in pups unless they are DEA 1.1 positive and born to a DEA 1.1 negative mother sensitised by a DEA 1.1 positive transfusion.



Plasvacc now distribute "Quick Test" for fast accurate determination of dog blood type. For information and technical support contact "1 800 PLASMA".

\*Hohenhaus. Importance of blood groups and blood group antibodies in companion animals. Transfusion Medicine Reviews. 18(2): 117-126. 2004. A copy of this reference can be provided upon request.