



# HEMOPET

11330 Markon Drive  
Garden Grove, California 92841  
Tel: 714-891-2022  
Fax: 714-891-2123

## TREATING “FADING PUPPY SYNDROME” or ORPHAN PUPS with PLASMA

**W. Jean Dodds, DVM**  
[hemopet@hotmail.com](mailto:hemopet@hotmail.com)

One important use of blood plasma is to provide a source of globulins (plasma protein antibodies) to protect weak, fading or orphan newborns against the common infectious agents to which they are exposed. Plasma treatment [canine fresh-frozen plasma (FFP)] for orphaned puppies or for those receiving only minimal colostrum after birth should be given in the first 24-48 hrs of life. Treatment for healthy newborns may be repeated at 5 to 14 days of age and then again at 3 to 4 weeks of age. For sick newborns, more frequent transfusions of FFP may be necessary. These transfusions are usually given intraperitoneally (IP), but they can also be given orally (by mouth) in the first 24 -36 hours of life [as FFP is salty, it should be followed with a little drop of honey or syrup on the tongue]. When puppies are two days of age or older, the route of administration must be IP (or IV or subcutaneously) and not oral, as the antibodies in plasma will no longer be absorbed through the gastrointestinal tract. For kittens, the same protocol is followed using feline FFP.

The recommended dose is 3-5 mL per pound of body weight (0.25 x weight of puppy in ounces = the amount of plasma given in mL or cc) and is given to each puppy orally, IP or subcutaneously. Do not give more than 10 mL at one time.

**Do not mix FFP with any solution, including formula, Lactated Ringers, water, etc. The plasma by itself is very stable, but addition of any foreign solution may adversely affect the chemical composition of the plasma.**

FFP can be refrozen after thawing without loss of viability. Check the screw top of the tube while thawing as it can loosen and drip contents. After thawing, a tube can be re-frozen as long as it has not been left out at room temperature for more than 1 hour. Similarly, if only part of a tube is used or needed, the remainder of the tube can be placed in the refrigerator for 24 hours and then should be re-frozen. There will not be any loss of albumin and globulin activities for up to 5 years, however, coagulation factors, which are typically used for bleeding disorders not found in newborns, diminish after 1 year.

At Hemopet, FFP comes in 12 mL plastic tubes at a cost of \$14 per tube. This product is sent frozen by Fed-Ex Priority Overnight courier – typical cost \$38 per shipment.

### References

- Dodds, WJ. 1993. Known medical indications for using fresh-frozen plasma. DVM Newsmagazine 24(4): 42-43.
- Poffenberger EM, Olson, PN, Chandler, ML, et al. 1991. Use of adult dog serum as a substitute for colostrum in the neonatal dog. Am J Vet Res 52: 1221-1224.
- Bouchard, G, Plata-Madrid, H, Youngquist, RS et al. 1992. Absorption of an alternate source of immunoglobulin in pups. Am J Vet Res 53: 230-233.