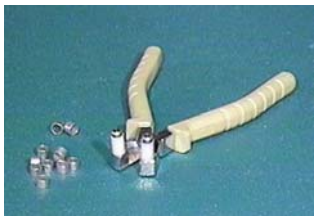
ANIMAL BLOOD BANK®
"Blood Banking for Every Hospital" Series
Title: **REMOVING PLASMA FROM STORED WHOLE BLOOD**

Lessons in Lifesaving
1-800-2 HELP K9
1-800-243-5759

Description: Whole blood stored upright (ports of the bag facing up) in the refrigerator will separate by gravity into two parts, red cells on the bottom and plasma on top. The length of time for this separation to occur varies by specie. The plasma is easily removed using a multibag set or a single donor bag and transfer bag. The plasma can be removed up to 5 days after the expiration date of the whole blood and stored in the freezer for up to 5 years. Plasma collected in this manner is NOT a viable source of coagulation factors V and VIII (vWb). [Note: Fresh frozen plasma (optimum values of factors V and VIII) requires that the plasma be separated in a centrifuge and frozen within eight hours of blood collection.]



Equipment needed:

1. Transfer bag or multibag set.
2. Sealing clips
3. Pliers or tubing stripper (optional)
4. Guarded hemostat
5. Plasma press or large book
6. Plasma carton (optional)

Procedure:
1. Use aseptic techniques throughout this process.
2. It a transfer bag is used, clamp the guarded hemostat onto the tubing of the transfer bag.
3. Remove the cap from spike on the transfer bag tubing. Keeping the bag of whole blood upright, remove or peal back the protective cover from one of the diaphragm ports (Fig 1), and insert the spike into the diaphragm port, piercing the port membrane (Fig 1a).
4. On multiple bag sets, simply prepare the bags for transfer by untangling any tangled tubing and separate the bags so that only the bag containing the whole blood will be placed in the plasma press. Keep the donor bag upright.
5. Carefully set the bag of whole blood into the spine of a large book or the back plate of the plasma press and carefully close book or press so that there is no disturbance of the red cells into the plasma. (Fig 1).
6. Release the guarded hemostat from the tubing of the transfer bag or snap the cannula on the multibag set.
7. Plasma will flow from the bag into the transfer bag or satellite bag when light pressure is applied. Keep light but steady pressure applied to the blood bag to avoid remixing plasma and red cells.
8. When plasma is removed, clamp off the transfer bag tubing. with the guarded hemostat. **Note:** If the whole blood has expired, remove all of the plasma. If the red cells are to be preserved, retain approximately 20% of the plasma on the red cells.
9. Seal tubing in 2 adjacent places using 2 aluminum sealing clips each (Fig 2) and pliers or tube strippers. Sever the tubing between the sets of clips. 2 clips must be used for each segment of the transfer tubing to assure that no air can seep into the bag.
10. Place the plasma in a plasma carton to insure longer protected storage.
11. Put plasma in a freezer, taking care to protect it from breakage. Plastic bags are extremely fragile when frozen.

Note: Plasma cannot be removed from red blood cells as plasma has already been removed. The supernatant remaining on the red cells is anticoagulant and red cell nutrient only.

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