



Clinical Pathology, School of Veterinary Science
Gate 1, 250 Princes Highway, Werribee, 3030
Telephone: 03 9731 2273

COLLECTION OF BLOOD FOR VON WILLEBRAND FACTOR (vWf) AND FACTOR ASSAYS

ANIMAL REQUIREMENTS

The dog should be **fasted** for about 12 hours beforehand.

A **resting sample** should be collected. Excitement must be minimised. Sedation can be used if needed. Xylazine at a maximal dose of 2 mg/kg is recommended.

Avoid collecting blood from bitches that are in heat, pregnant or lactating. These physiological conditions **may** alter von Willebrand factor (vWf) values.

Avoid collecting blood from a sick animal or one that has recently had surgery or a bout of serious haemorrhage. **Please wait until 6 weeks post haemorrhage to sample for vWD.** von Willebrand factor concentration may increase in response to stress, inflammation, acute haemorrhage and infection because it is an acute phase reactant.

Veterinary requirements

Sodium citrate is the required **anticoagulant**. It must be used at a ratio of 1 part citrate to 9 parts blood.

When using sodium citrate vacutainers, the expiry date on the tube pertains to the vacuum and may be used if the tubes have been refrigerated and are no more than 6 months out of date. The volume of blood required to correctly fill the tube is usually printed on the vacutainer. Ensure that the tube is filled correctly to avoid sample rejection. **Underfilled** and **overfilled** tubes are unacceptable.

“Clean” (i.e. minimally traumatic) **venepuncture** is essential. If there are problems with the venepuncture, then another needle and syringe must be used.

To avoid initiating clotting of the blood during sample collection, the citrate may be added directly to the syringe used to collect the blood:

To collect 3 ml of blood, place 0.3 ml citrate in a 5 ml syringe and collect blood up to the 3 ml mark (i.e. 2.7 ml of blood is added to the 0.3 ml of citrate in the syringe).

The citrated blood is then placed into a **plain plastic tube**, which is gently inverted a few times to ensure complete mixture of the sample.

The recommended *minimum* amounts of blood for coagulation studies are:

1. Prothrombin time (PT), partial thromboplastin time (APTT) - 3 ml.
2. Factor VIII assay (for haemophilia A) and other factors - 2 ml.
3. von Willebrand factor assay (for von Willebrand disease) - 2 ml.

When collecting blood from a male German Shepherd Dog for testing as part of the Club's Haemophilia A Accreditation Scheme, please read and record the dog's ear tattoo, as confirmation of the animal's identity.

SAMPLE SUBMISSION REQUIREMENTS

Plasma is preferable to blood. Centrifuge the sample as soon as possible.

The plasma is transferred to a **plain plastic tube** using a **plastic** pipette.

****Under no circumstances should the plasma be transferred to a clot activator tube (with or without gel, labelled eg SST, CAT, serum separator, Serum-Z) or any other blood collection tube. Please do not transfer plasma back into a sodium citrate tube.** A plastic urine jar is suitable if a plain plastic tube is not available. **

The plasma should be kept cool, i.e. 4°C, after collection and in transit to the laboratory. An esky with ice packs to keep the sample chilled is ideal. Transfer the sample to the laboratory as soon as possible (within 24 hours). If there is to be a longer delay, the sample should be frozen. Frozen plasma samples are stable at -20°C for at least a month. Such samples must remain frozen when transferred to the laboratory, i.e. transport on *dry ice*.

If a centrifuge is not available and a whole blood sample is being transported to the laboratory, the sample should be wrapped in cotton wool or newspaper and placed in an esky with ice packs. The sample should not rest directly on the ice packs as this will cause haemolysis. Do not freeze whole blood samples. Transfer to the laboratory within 24 hours of collection.

Australia Post provides Express Post satchels that are a cheap and reliable method for forwarding samples. Place the sample with ice packs in a small insulated box or laboratory mailer. Ensure that your postcode falls within the "next day network" as the sample must reach the laboratory within 24 hours.

Notify the laboratory that the sample is being dispatched and the courier involved.

Please provide a **complete history** and preferably a pedigree of the dog.

ASSAY SCHEDULES

von Willebrand factor: Every Wednesday.

Factor VIII (Haemophilia A) and other factors: the number of samples received determines assay frequency. Please contact the laboratory for further details.

Prices

Factor VIII etc \$ 155.00

von Willebrand factor \$ 130.00

von Willebrand factor retest \$ 50.00

Contact the laboratory for litter prices.