CLINICAL PATHOLOGY LABORATORIES
A Sonic Healthcare Clinical Laboratory

Centrifugation Job Aid

Order of Draw	Additive	Number of Inversions	Centrifugation Speed in RCF	Centrifugation Time in Minutes
Blood culture	SPS	3-4 times	NA	NA
Light blue	Sodium citrate	3-4 times	1500 RCF	15 minutes
Red/grey (BD) Red/gold (Greiner)	Clot activator	5 times	1100-1300 RCF	10 minutes
Plain red	No additive	5 times	1100-1300 RCF	10 minutes
Green	Lithium or Sodium heparin	8-10 times	1300 RCF	10 minutes
Lavender	EDTA	8-10 times	NA	NA
Grey	Sodium fluoride	8-10 times	1300 RCF	10 minutes

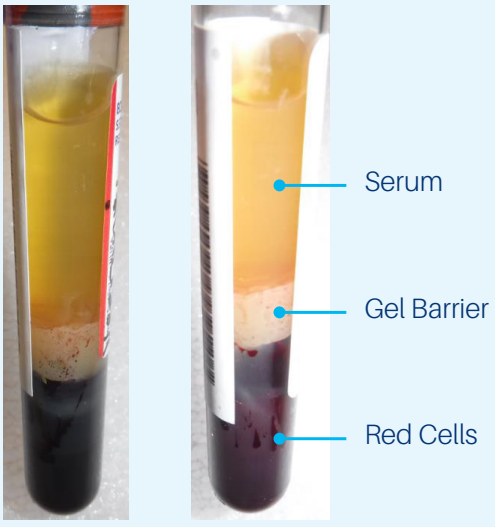
Specimen Processing Tips

1. Label all tubes with patient's first and last name and date of birth.
2. Include the date and time of collection on the tube label.
3. Let all serum separator tubes (ST) clot upright, preferably in a tube rack, for at least 30 minutes. Let plain red top (RT) tubes clot upright for at least 60 minutes. This prevents the blood clot from sticking to the top of the tube while clotting.
4. ST and RT tubes should be centrifuged within 2 hours of collection to preserve analyte stability.
5. Ensure all specimens are centrifuged at the time and speed suggested by the manufacturer for proper separation between the serum and red cell layers with a well-formed gel layer.
6. The gel barrier in a ST tube must be well formed to ensure red cells do not come in contact with the serum, as prolonged contact between the serum and red cells can falsely increase potassium and decrease glucose. If there are red cells in the serum, the serum should be pipetted into a transfer tube, centrifuged again and separated into another properly labeled transport tube.

Properly Centrifuged SSTs

Properly Centrifuged SSTs will show a clear separation of:

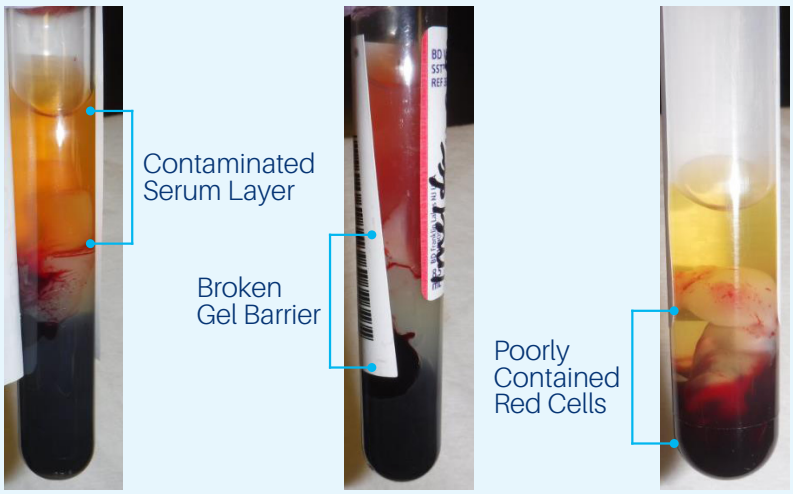
- Serum
- Gel Barrier
- Red Cells



SSTs with Improper Centrifugation

SSTs with Improper Centrifugation will not allow for complete separation resulting in:

- Contaminated Serum Layer
- Broken Gel Barrier
- Poorly Contained Red Cells



Centrifugation Process

1. Centrifuges should have the speed verified annually to ensure that a relative centrifugal force (RCF) of at least 1500 is attainable. Contact your local CPL office for details.
2. Match tube sizes and volumes to be placed in opposite tube holders in the rotor before centrifuging specimens.
3. Specimens should not be centrifuged for extended amounts of time in order to prevent over-heating of the samples. Follow the chart above for centrifugation times.
4. ST tubes should not be re-centrifuged once the gel barrier has been formed.
5. Use of alternate centrifugation conditions (e.g., higher RCF and shorter spin time) may also provide acceptable performance.

The 642E model centrifuge is easy to use and can process six tubes at a time - both 75 and 100 mm tubes for chemistry and coagulation testing.

The centrifuge is preset for 10 minutes at 1600 RCF.

The centrifuge requires no routine maintenance.

The clear, shatterproof lid locks in place until the centrifuge has stopped completely.

Lights on the control panel illuminate to indicate running, locked and unlocked.

For more information, please contact your local CPL facility.

Manufacturer instructions may be found here:
https://druckerdiagnostics.com/shop/centrifugation/600-series/model-642e-centrifuge/

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