

## Referred out for testing

**Note to ordering physician:** The preferred blood specimen type for each trace element is listed in the following table. Trace element testing on non-preferred specimen types requires review and approval by CLS Medical & Scientific Staff. Please contact CLS Referrals at 403-770-3285 for further information on the approval process.

### CLS staff:

- Testing is performed on the preferred specimen types serum and whole blood, as indicated in the Preferred Specimen table.
- If "erythrocyte", "RBC" or "red blood cell" testing is written on the requisition, follow the collection and handling instructions in the Non-Preferred Specimen table.
- If any other specimen type is requested for the following trace elements, refer to the Referrals Test Guide. If test cannot be found in the Referrals Test Guide, collect the preferred specimen type.

PREFERRED SPECIMEN					
Elements	Mnemonic	Specimen Type	Specimen Requirements	Specimen Handling	Testing Location
Aluminum*	ALUM	Serum	1 x 6 mL BD royal blue top red band non-additive tube	Allow specimen to clot, then centrifuge within 2 hours of collection. Aliquot serum using a plastic pipette (not glass) to a plastic screwcap Sarstedt2 aliquot tube (aliquot tubes available from Referrals). Screw the caps on tightly to avoid leakage.  <b>PSC &amp; RRL:</b> Transport to DSC at room temperature in a separate bag with a copy of the requisition.  <b>Extra-regional:</b> Freeze aliquots and transport to DSC on dry ice in a separate bag with a copy of the requisition.  <b>DSC:</b> Place specimens in freezer upon receipt in lab; ensure frozen specimens do not thaw.	U of A
Barium	BA				
Beryllium	BER				
Chromium	CHRM				
TEST NAME ALERT: CLS staff: If any specimen type other than serum is requested for Chromium, refer to the Referrals Test Guide					
Copper	CU				
Nickel	NI				
Selenium	SEL				
Zinc	ZINC				
Arsenic*	AS	Whole Blood	1 x 6 mL Monoject royal blue top no band <b>EDTA</b> (Na <sub>2</sub> ) tube	Do not transfer to another container. Send whole blood tube. Transport specimen to DSC at room temperature in a separate bag with a copy of the requisition.  <b>DSC:</b> Place specimen in fridge upon receipt in lab.	U of A
Antimony	ATM				
Cadmium	CAD				
Cobalt	COB				
Manganese	MANG				
Mercury*	MERC				
Molybdenum	MO				
Thallium	TL				
Lead*	LEAD				

NON-PREFERRED SPECIMEN					
Elements	Mnemonic	Specimen Type	Specimen Requirements	Specimen Handling	Testing Location
Any elements with RBC, erythrocyte, red blood cell specifically requested	MISCREFB Misc Ref Test Name field: RBC _____	Erythrocytes (only when specifically requested) These tests cannot be collected by Mobile Collection Service (MCS).	2 x 6 mL BD royal blue top lavender band <b>K<sub>2</sub> EDTA</b> tube  Only two tubes are required, regardless of number of elements ordered.	Centrifuge both tubes within 30 minutes of collection. Aliquot plasma from each tube into a separate plastic Sarstedt2 aliquot tube. Remove buffy coat and discard. Aliquot the remaining red cells from each tube into a separate plastic Sarstedt2 aliquot tube (aliquot tubes available from Referrals) and screw the cap on tightly to avoid leakage. Send all 4 aliquots to DSC at room temperature.  <b>Extra-regional:</b> Freeze aliquots and transport to DSC on dry ice.  <b>DSC:</b> Freeze specimens upon receipt in lab; ensure frozen specimens do not thaw.	Dynacare
<b>Note to ordering physician:</b> Trace element testing on non-preferred specimen types requires review and approval by CLS Medical & Scientific Staff. Please contact CLS Referrals 403-770-3285 for further information on the approval process.					

- \*Aluminum: Avoid fruits, chocolate, juices, beer, coffee, teas and antacids containing aluminum for 24 hours prior to collecting specimen.
- Arsenic and Mercury: Avoid seafood consumption five days prior to collecting specimen.
- Lead: Health Canada's current blood lead intervention level is 0.48 umol/L (10 ug/dL). However, it is now recognized that blood lead levels below this concentration may also cause health effects, particularly for children. For more information, please contact the Poison and Drug Information Service (PADIS) at 1-800-332-1414.