

## Fast Facts

This guideline is intended for the use of heparin for therapeutic (not prophylactic) indications. This guideline is not intended for heparin use to maintain patency of arterial or central venous catheters or hemodialysis/extracorporeal circuits.

Activated partial thromboplastin time (aPTT- reported in Cerner as PTT) and heparin levels are used to monitor the effects of standard heparin.

Standard heparin is also referred to as *unfractionated* heparin in many references.

Heparin levels are performed on arrival in the lab (no specific batch time for this test).

Antithrombin III (ATIII) levels are automatically ordered and reported with every heparin level.

The ***optimal sample*** for aPTT and heparin levels is a ***fresh venipuncture site***.

- Alternate sites may be considered but present limitations with interpretation of the aPTT or heparin levels.
- Capillary samples are not appropriate.
- Samples should never be drawn from an IV containing heparin intended for *therapeutic anticoagulation*.
- If aPTT is highly variable, heparin level may provide a more reliable measure.
- Ensure sample is not contaminated by heparin from a heparinized IV line (1/2 or 1 unit/mL heparin) by drawing adequate waste volume to clear line before obtaining the sample to be tested.

Do not confuse the heparin level with that for *fractionated* heparin or LMW heparin level.

ATIII is a cofactor for activity of heparin and therefore inadequate serum AT III might be a cause for poor response to heparin.

**This guideline is not intended for patients on ECMO, cardiac bypass pump, hemodialysis or continuous renal replacement therapy. Refer to specific guideline for these situations.**

**References:**

David, M., et al. Heparin and LMWH in Children. Thrombosis Interest Group of Canada. January 2007. <http://www.tigc.org/eguidelines/heparinchild07.htm>. Accessed 11/15/08.

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*These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly these guidelines should guide care with the understanding that departures from them may be required at times.*

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