

Special Collection Instructions – Blood and Urine

Catecholamines, Plasma Fraction

1. Unless the purpose of the measurement is drug monitoring, discontinue any epinephrine, norepinephrine, or dopamine injections or infusions for at least 12 hours before specimen draw.
2. Discontinue drugs that release epinephrine, norepinephrine, or dopamine or hinder their metabolism, for at least 1 week before obtaining the specimen. If this is not possible for medical reasons, contact the laboratory and discuss whether a shorter drug-withdrawal period may be possible in a particular case.
3. Do not perform the test on patients withdrawing from legal or illegal drugs known to cause rebound plasma catecholamine release during withdrawal.
4. The patient must refrain from eating, using tobacco, and drinking caffeinated beverages for at least 4 hours before the specimen is drawn.
5. Calm the patient by giving complete instructions and reassurance regarding the procedure.
6. Insert an indwelling intravenous catheter. Flush with 3 ml of NaCl, using positive pressure.
7. Have the patient rest for 30 minutes in the supine position in a quiet room.
8. At the end of the 30 minutes, withdraw and discard a minimum of 3 ml of blood to remove the saline out of the catheter.
9. **Note:** Catecholamine tubes containing EDTA-sodium metabisulfite solution must be used, and are supplied by the Laboratory.
10. If "provocative" sampling (e.g., standing specimen) is required, perform provocative maneuver immediately after obtaining supine specimen, and obtain standing specimen immediately.
11. For each specimen, draw 20 ml of blood into 2 chilled tubes (10 ml per tube).
12. Separate plasma in a refrigerated centrifuge within 30 minutes of draw.
13. Freeze 7 ml of EDTA plasma immediately at -70 degrees C in plastic vial(s). Send specimen frozen.

Catecholemines, Urine Fraction

1. Test requires 10 ml from a 24-hour urine collection. Add 25 ml of 50% acetic acid as preservative at start of collection. (For children <5 years old, use 15 ml of 50% acetic acid). This preservative is intended to achieve a pH of between approximately 2 and 4.
2. Discontinue any epinephrine, norepinephrine, or dopamine injections/infusions at least 12 hours before specimen collection, unless drug monitoring is the goal.
3. Discontinue drugs that release or hinder metabolism of epinephrine, norepinephrine, or dopamine for at least 1 week before obtaining the specimen. If this is not possible for medical reasons, contact the laboratory to discuss whether a shorter drug-withdrawal period may be acceptable. Note: This assay is of greatest value when the specimen is collected during a hypertensive episode.
4. Do not perform the test on patients withdrawing from legal or illegal drugs known to cause rebound plasma catecholamine release during withdrawal.
5. The addition of preservative or application of temperature controls must occur at the start of the collection. Although the preferred preservative is 50% Acetic Acid, the following preservatives are acceptable: 6N HCl, 6N HNO₃, Boric Acid, or Thymol.
6. Send specimen refrigerated in a plastic tube or bottle. 24-Hour volume is required on request form for processing.