

# Cardio/ION<sup>SM</sup> Profile - Clinician

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## Blood Specimen Collection Instructions

This specimen collection kit can be used for the following test(s):

0290 Cardio/ION Profile - Blood/Urine

0068 Chemistries - Serum

0088 Neopterin/Biopterin Profile - Urine

0030 UMFA Profile - Serum

0031 Vitamin K Assay - Serum

**Please Note:** The Cardio/ION Profile requires the patient to collect urine at home. This should be done prior to the blood collection. **All specimens, urine and blood, must be shipped together.** Patient must be fasting for blood draw. (Urine collection instructions are explained in the Cardio/ION Profile - Patient Specimen Collection Instructions.)

### IMPORTANT:

All patient specimens require two unique identifiers

***patient's name and date of birth***, as well as ***date of collection***.

**Patient's first and last name, date of birth, gender, and date of collection** must be recorded on the **Test Requisition Form** as well as on all tube(s) and/or vial(s), using a permanent marker, or the test may not be processed.

## Specimen

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**Serum**, ~12 ml (4 tubes, ~3 ml each), frozen; **Plasma**, 2.5 - 3 ml, frozen;

**Whole Blood**, room temperature; **Overnight Urine**, 12 ml, frozen

## Collection Materials

- 4 red/gray top serum separator tubes
- Royal-blue top Na-EDTA tube, trace mineral free
- Light-blue top Na-citrate tube
- Lavender top EDTA tube
- 4 red top amber transfer tubes
- Light-blue top clear transfer tube
- Lavender top clear transfer tube
- 3 disposable pipettes

## Shipping Materials

- Plastic shell tube tray
- 2 absorbent pads
- 3 ice packets
- Test Requisition Form
- Personal Health Assessment Form
- Biohazard bag with side pocket
- Specimen collection kit box
- FedEx® Clinical Lab Pak and Billable Stamp

*Please read all instructions carefully before you begin.*

## Patient Preparation

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- It is best to **ship the specimen within 48 hours of collection**. Please refer to the enclosed shipping instructions **before** you collect to determine the days that the specimen can be shipped.
- Please check to make sure the patient has fasted prior to drawing blood

## Blood Collection

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1. **Write patient's first and last name, date of birth, gender and date of collection** on the Test Requisition Form (located in the pouch on top of the Specimen Collection Kit Box), as well as on all tube(s) and/or vial(s), using a permanent marker.
  - **IMPORTANT:** To ensure accurate test results, you **must** provide the requested information.
2. **Freeze** the ice packets.
3. **Light-blue top Na-citrate tube**
  - **Draw** the light-blue top Na-citrate tube completely.
  - **Invert** the tube gently 10 times immediately after the draw.
  - **Centrifuge** immediately for 15 minutes. The plasma must be free of hemolysis or red blood cells.
  - **Remove** the light-blue top Na-citrate tube after centrifuging;  
**DO NOT INVERT THE TUBE.**
  - **Pipette** plasma, using a fresh disposable pipette, 2.5 - 3 ml from the light-blue top Na-citrate tube into the light-blue top clear transfer tube. **Cap** tightly.
  - **Freeze** the light-blue top clear transfer tube
4. **Red/gray top serum separator tubes and red top amber transfer tubes**
  - **Draw** the 4 red/gray top serum separator tubes .
  - **Place** upright in a rack at room temperature for 20 to 30 minutes to clot blood.
  - **Centrifuge** the red/gray top serum separator tubes for 15 minutes. The serum must be free of hemolysis or red blood cells.
  - **Pipette** all of the serum off of the 4 red/gray separator tubes into the 4 red top amber transfer tubes. (**DO NOT** fill more than  $\frac{3}{4}$  full to allow for freezing). **Cap** each tube tightly.
  - **Freeze** the red top amber transfer tubes.
5. **Royal-blue top Na-EDTA tube, trace mineral free**
  - **Draw** the royal-blue top Na-EDTA tube completely.
  - **Invert** the tube gently 15 times immediately after the blood draw.
  - **Leave** the tube at room temperature. Do not centrifuge or transfer.

## 6. Lavender top EDTA tube and lavender top clear transfer tube

- **Draw** the lavender top EDTA tube completely.
- **Invert** the lavender top EDTA tube 10 times to mix the EDTA with the blood.
- **Centrifuge** immediately for 15 minutes. The plasma must be free of hemolysis or red blood cells.
- **Remove** the lavender top EDTA tube after centrifuging;  
**DO NOT INVERT THE TUBE**
- **Pipette** plasma, using a fresh disposable pipette, 2.5 - 3 ml to the lavender top clear transfer tube
- **Freeze** the lavender top clear transfer tube

## Specimen Preparation

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1. **Place** all of the frozen transfer tubes, and the frozen urine collection into the slots or the ends of the plastic shell tube tray (an exact fit is not necessary). **Place** the absorbent pads over the tubes. **Place** the frozen ice packets at each end of the tubes in the tray and one in the middle. **Snap** the tray closed. (Do not place the royal-blue top Na-EDTA tube inside the tray).
2. **Place** the tray, along with the royal-blue top Na-EDTA tube, into the biohazard bag.
3. **Staple** payment to the bottom right-hand corner of the completed Test Requisition Form and **complete** the Personal Health Assessment Form; **Fold and Place** them in the side pocket of the biohazard bag.
4. **Seal** the biohazard bag, **Place** it into the specimen collection kit box, and close the box.

# Checklist (Prior to Shipping)

Includes Blood & Urine Specimens

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## 1. Tubes

- Patient's first and last name, date of birth, gender, and date of collection are written on all tubes and vials
- All the tubes and vials are capped tightly

## 2. Frozen

- Clear cap plastic vial (urine)
- Light-blue top clear transfer tube
- 4 red top amber transfer tubes
- Lavender top clear transfer tube
- 3 Ice packets

## 3. Room Temperature

- Royal-blue top Na-EDTA tube, trace mineral free

## 4. Test Requisition Form with Payment

- Test Requisition Form is complete
- Personal Health Assessment Form is complete
- Payment is included



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# Cardio/ION<sup>SM</sup> Profile - Patient

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## Urine Specimen Collection Instructions

This specimen collection kit can be used for the following test(s):

**0290 Cardio/ION Profile** - Blood/Urine

**0068 Chemistries** - Serum

**0088 Neopterin/Biopterin Profile** - Urine

**0030 UMFA Profile** - Serum

**0031 Vitamin K Assay** - Serum

**Please Note:** The Cardio/ION Profile requires the patient to collect urine at home. This should be done prior to the blood collection. **All specimens, urine and blood, must be shipped together.** Patient must be fasting for blood draw. (Blood collection instructions are explained in the Cardio/ION Profile - Clinician Specimen Collection Instructions.)

### IMPORTANT:

All patient specimens require two unique identifiers

***patient's name and date of birth***, as well as ***date of collection***.

**Patient's first and last name, date of birth, gender, and date of collection** must be recorded on the **Test Requisition Form** as well as on all tube(s) and/or vial(s), using a permanent marker, or the test may not be processed.

## Specimen

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**Serum**, ~12 ml (4 tubes, ~3 ml each), frozen; **Plasma**, 2.5 - 3 ml, frozen;

**Whole Blood**, room temperature; **Overnight Urine**, 12 ml, frozen

## Collection Materials

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- Clean collection container  
(NOT included in this kit)
- Clear cap plastic vial with thymol preservative
- Disposable pipette

## Shipping Materials

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- Plastic shell tube tray
- 2 absorbent pads
- 3 ice packets
- Test Requisition Form
- Personal Health Assessment Form
- Biohazard bag with side pocket
- Specimen collection kit box
- FedEx® Clinical Lab Pak and Billable Stamp

*Please read all instructions carefully before you begin.*

## Patient Preparation

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- It is best to **ship your specimen within 48 hours of collection**. Please refer to the enclosed shipping instructions **before** you collect to determine what days you can ship your specimen.
- **It is not** necessary to discontinue nutritional supplements prior to this specimen collection. Abnormalities that may be found will reveal special needs that have not been met by recent dietary and supplemental intake.
- **Decrease** fluid intake to avoid excessive dilution of the urine.
  - » For adults, **restrict intake** to three 8 oz. glasses or less for 24 hours.
  - » **Make sure** that no more than 8 oz. of fluids are consumed after 8:00, the evening prior to urine collection.
- **Do not collect** urine during menstruation.
- Vial contains preservative - **Do Not Rinse**.

## Urine Collection

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1. **Write** patient's **first and last name, date of birth, gender** and **date of collection** on the Test Requisition Form (located in the pouch on top of the Specimen Collection Kit Box), as well as on all tube(s) and/or vial(s), using a permanent marker.
  - **IMPORTANT:** To ensure accurate test results, you **must** provide the requested information.
2. **Empty** bladder before going to bed at night. **DO NOT** collect this urine.
3. **Collect** urine (if any) during the night and first morning urine into a clean container.
4. **Pipette** urine, using a fresh disposable pipette, into the clear cap plastic vial to the 12 ml mark (**DO NOT OVERFILL**). **Screw** the cap on tightly.
5. **Dispose** of the remaining urine.
6. **Freeze** the clear cap plastic vial and the ice packet.

## Blood Collection Preparation

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7. **Schedule** a morning blood drawing appointment on a **Monday, Tuesday, Wednesday, or Thursday**. Inform the doctor or lab that a centrifuge is needed to prepare the blood specimens. The kit contains all of the tubes required for collection.
8. **Do not have anything to eat or drink** (other than water) after 9:00 on the night before your blood is drawn.
9. **Staple** payment to the bottom right-hand corner of the completed Test Requisition Form and **complete** the Personal Health Assessment Form; **Fold and Place** them in the side pocket of the biohazard bag.
10. **Take** frozen urine specimen (placed in the biohazard bag with the frozen ice packet) and **ALL** collection and shipping materials with you to the blood drawing site. This will allow the blood and urine specimens to be shipped together to the lab.

# Checklist (Prior to Shipping)

Includes Blood & Urine Specimens

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## 1. Tubes

- Patient's first and last name, date of birth, gender, and date of collection are written on all tubes and vials
- All the tubes and vials are capped tightly

## 2. Frozen

- Clear cap plastic vial (urine)
- Light-blue top clear transfer tube
- 4 red top amber transfer tubes
- Lavender top clear transfer tube
- 3 ice packets

## 3. Room Temperature

- Royal-blue top Na-EDTA tube, trace mineral free

## 4. Test Requisition Form with Payment

- Test Requisition Form is complete
- Personal Health Assessment Form is complete
- Payment is included



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