

IONSM PEDIATRIC PROFILE - CLINICIAN

BLOOD SPECIMEN COLLECTION INSTRUCTIONS

THIS SPECIMEN COLLECTION KIT CAN BE USED FOR THE FOLLOWING TEST(S):

- 0090 PEDIATRIC ION PROFILE - Blood/Urine
- 0190 PEDIATRIC ION PROFILE NY - Blood/Urine
- 0490 ION PROFILE W/AMINO ACIDS 40 - Blood/Urine
- 0590 ION PROFILE W/AMINO ACIDS 40 NY - Blood/Urine
- 1075 IgG₄ FOOD ANTIBODIES - Serum
- 0068 CHEMISTRIES - Serum
- 0088 NEOPTERIN/BIOPTERIN PROFILE - Urine
- 0031 VITAMIN K ASSAY - Serum

PLEASE NOTE: The ION Pediatric 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 ION Pediatric Profile-Patient Specimen Collection Instructions.)

PLEASE NOTE:

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

SPECIMEN

Serum, 6 ml (3 tubes, 2 ml each), frozen; Plasma, 2.5 - 3 ml, frozen;
Whole Blood, room temperature; Overnight Urine, 12 ml, frozen;
Additional 3 ml Serum required if ordering #1075 with ION Profile

COLLECTION MATERIALS

- 4 Red/gray top serum separator tubes
- Green top Na-heparin tube
- Lavender top EDTA tube
- 3 Red top amber transfer tubes
- Red top clear transfer tube
- Lavender top clear transfer tube
- 2 Disposable pipettes

SHIPPING MATERIALS

- Plastic shell tube tray
- Absorbent pad
- 3 Ice packets
- Test Requisition Form
- Personal Health Assessment Form
- Biohazard bag with side pocket
- Specimen collection kit box
- FedEx® Express Clinical Lab Pak and Overnight Billable Stamp



Call 800.221.4640 or visit our website at www.metamatrix.com

Please read all instructions carefully before beginning.

PATIENT PREPARATION

- 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.
- Please check to make sure the patient has fasted prior to drawing blood

Please note: For test #1075 IgG₄ Food Antibodies ONLY

- The use of immunosuppressive drugs, like cortisone, can give false negative test results. Discontinue the use of such drugs for 60 days before testing to allow antibody reactions to be seen.

NOTE: The total volume of blood necessary to be drawn is approximately 22 ml (26 ml if ordering #1075 with ION Pediatric Profile). Patients weighing less than 40 pounds should be drawn **only** with authorization from the ordering clinician, otherwise it will be necessary to schedule multiple blood draws. Information on how to handle specimens and other issues dealing with multiple draw pediatric patients can be obtained from our website at www.metamatrix.com or by calling your customer service representative at 800-221-4640.

BLOOD COLLECTION

- 1. WRITE** patient's first and last name, date of birth, and date of collection on the Test Requisition Form (located in the pouch on top of the Specimen Collection Kit Box), as well as all tube(s) and/or vial(s), using a permanent marker.
- 2. FREEZE** the ice packets.
- 3. Red/gray top serum separator tubes and red top amber transfer tubes**
 - **DRAW** 3 red/gray top serum separator tubes (or draw 4 if also ordering #1075 IgG₄ Food Profile)
 - **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** 2 ml serum, using a fresh disposable pipette, from each of the red/gray top serum separator tubes into the 3 red top amber transfer tubes (and 2 ml into the red top clear transfer tube if also ordering #1075). Cap each tightly.
 - **FREEZE** the red top amber transfer tubes.
 - **REFRIGERATE** the red top clear transfer tube for test #1075.

4. *Green top Na-heparin tube*

- **DRAW** the green top Na-heparin tube completely
- **INVERT** the tube gently 15 times immediately after the blood draw
- **LEAVE** the tube at room temperature. **DO NOT CENTRIFUGE OR TRANSFER.**

5. *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 and red blood cells.
- **REMOVE** the lavender top clear transfer tube from centrifuge; **DO NOT INVERT TUBE.**
- **PIPETTE** plasma, using a fresh disposable pipette, 2.5 - 3 ml to lavender top clear transfer tube
- **FREEZE** lavender top clear transfer tube

SPECIMEN PREPARATION

1. **PLACE** all of the frozen transfer tubes, (refrigerated red top clear transfer tube if #1075 was also ordered), and frozen urine collection into the slots or the ends of the plastic shell tube tray. (An exact fit is not necessary.) Place the absorbent pad 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 green top Na-heparin tube inside the tray).
2. **PLACE** the tray, along with the green top Na-heparin 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

1. TUBES

- Patient's first and last name, date of birth, 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)
- 3 Red top amber transfer tubes
- Lavender top clear transfer tube
- 3 Ice packets

3. REFRIGERATE (ONLY IF #1075 IS ORDERED)

- Red top clear transfer tube

4. ROOM TEMPERATURE

- Green top Na-heparin tube

5. TEST REQUISITION FORM WITH PAYMENT

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

IONSM PEDIATRIC PROFILE - PATIENT

URINE SPECIMEN COLLECTION INSTRUCTIONS

THIS SPECIMEN COLLECTION KIT CAN BE USED FOR THE FOLLOWING TEST(S):

0090 ION PEDIATRIC PROFILE - Blood/Urine

0190 ION PEDIATRIC PROFILE NY - Blood/Urine

0490 ION PROFILE w/AMINO ACIDS 40 - Blood/Urine

0590 ION PROFILE w/AMINO ACIDS 40 NY - Blood/Urine

1075 IgG₄ FOOD ANTIBODIES - Serum

0068 CHEMISTRIES - Serum

0088 NEOPTERIN/BIOPTERIN PROFILE - Urine

0031 VITAMIN K ASSAY - Serum

PLEASE NOTE: The ION Pediatric 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.** (Blood collection instructions are explained in the ION Pediatric Profile - Clinician Specimen Collection Instructions.)

PLEASE NOTE:

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

SPECIMEN

Serum, 6 ml (3 tubes, 2 ml each), frozen; Plasma, 2.5-3 ml, frozen; Whole Blood, room temperature; Overnight Urine, 12 ml, frozen;

Additional 3 ml of Serum is required if ordering #1075 with ION Profile

COLLECTION MATERIALS

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

SHIPPING MATERIALS

- Plastic shell tube tray
- Absorbent pad
- 3 Ice packets
- Test Requisition Form
- Personal Health Assessment Form
- Biohazard bag with side pocket
- Specimen collection kit box
- FedEx® Express Clinical Lab Pak and Overnight Billable Stamp



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Please read all instructions carefully before beginning.

PATIENT PREPARATION

- 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.
- **Please Note: For test #1075 IgG₄ Food Antibodies ONLY:**
 - The use of immunosuppressive drugs, like cortisone, can give false negative test results. Discontinue the use of such drugs for 60 days before testing to allow antibody reactions to be seen.
- **DECREASE** fluid intake the entire day prior to the overnight/first morning collection to avoid excessive dilution of the urine
- Vial contains preservative - **Do Not Rinse**

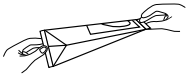
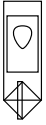
NOTE: The total volume of blood necessary to be drawn is approximately 22 ml (26 ml if ordering #1075 with ION Pediatric Profile). Patients weighing less than 40 pounds should be drawn **only** with authorization from the ordering clinician, otherwise it will be necessary to schedule multiple blood draws. Information on how to handle specimens and other issues dealing with multiple draw pediatric patients can be obtained from our website at www.metametrix.com or by calling client services at 800-221-4640.

- When collecting urine from an infant, please use the provided urine collection bag. Supplies for preparing the specimen for shipment (disposable pipette, transfer tube, and ice packets) are included in the biohazard bag
- **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.

URINE COLLECTION

1. **WRITE** patient's first and last name, date of birth, 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 the clear cap plastic vial, using a permanent marker.

2. **HAVE** child empty bladder before going to bed at night. **DO NOT** collect this urine.
3. **COLLECT** child's urine (if any) during the night and the first morning urine into a clean collection container. For infant urine collection, please use the provided pediatric urine collection bag:



- A. SEPARATE** infant's legs. Make sure perineal and pubic areas are clean and dry.
- B. PEEL OFF** backing paper, exposing adhesive.
- C. FOR FEMALE USE:** Start bottom adhesion at skin flap separating rectum from vagina and work upward. Press firmly to skin surrounding the vagina with excess of bag toward feet.
- D. FOR MALE USE:** Position penis naturally through bag opening with excess of bag toward feet. Press adhesive firmly to entire perimeter without puckering.
- E. REAPPLY** diaper, if required, directly over bag.

4. **PIPETTE** urine, using a fresh disposable pipette, into the clear cap plastic vial to the 12 ml mark (**DO NOT OVERFILL**).
5. **SCREW** the cap on tightly.
6. **DISPOSE** of remaining urine.
7. **FREEZE** the clear cap plastic vial and the ice packet.

BLOOD COLLECTION PREPARATION

- **SCHEDULE** the child's blood drawing appointment on a **Monday through Thursday morning** (the child will be fasting). 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.
- **THE CHILD MUST BE FASTING** for 12 hours. Do not give the child anything to eat or drink (other than water) after 9:00 PM the night before blood is drawn.
- **TAKE** the child's frozen urine specimen (placed in biohazard bag with 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

1. TUBES

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

2. FROZEN

- Clear cap plastic vial (urine)
- 3 Red top amber transfer tubes
- Lavender top clear transfer tube
- 3 Ice packets

3. REFRIGERATE (ONLY IF #1075 IS ORDERED)

- Red top clear transfer tube

4. ROOM TEMPERATURE

- Green top sodium heparin tube

5. TEST REQUISITION FORM WITH PAYMENT

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

PEDIATRIC URINE COLLECTION BAG

SPECIMEN COLLECTION INSTRUCTIONS

THIS SPECIMEN COLLECTION KIT CAN BE USED WITH THE FOLLOWING TEST(S):

0091 ORGANIXSM COMPREHENSIVE - Urine

0291 ORGANIXSM BASIC - Urine

0097 ORGANIXSM DYSBIOSIS - Urine

0060 PORPHYRINS PROFILE - Urine

0090 IONSM PEDIATRIC PROFILE - BLOOD/Urine

0190 IONSM PEDIATRIC PROFILE NY - BLOOD/Urine

0490 ION PROFILE w/AMINO ACIDS 40 - Blood/Urine

0590 ION PROFILE w/AMINO ACIDS 40 NY - Blood/Urine

0088 NEOPTERIN BIOPTERIN PROFILE - Urine

PLEASE NOTE: These instructions are to supplement the instructions found with each test kit, not to replace them. Please follow specific instructions for each test kit, using these instructions for the urine collection portion only. After collecting urine in the bag, follow transfer, storage, and shipping instructions included with the Organix, ION Pediatric, or Porphyrins test kits.

PLEASE NOTE:

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

COLLECTION MATERIALS

- Urine collection bag



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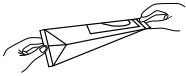
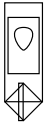
Please read all instructions carefully before beginning.

PATIENT PREPARATION

- **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 the entire day prior to the overnight/first morning collection to avoid excessive dilution of the urine
- When collecting urine from an infant, please use the provided urine collection bag. Supplies for preparing your specimen for shipment (disposable pipette, transfer tube, and ice packets) are included with the biohazard bag in the test kit.

URINE COLLECTION

- 1. WRITE** patient's first and last name, date of birth, 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 the tube (or vial) included in the test kit, using a permanent marker.
- 2. HAVE** child empty bladder before going to bed at night. **DO NOT** collect this urine.
- 3. COLLECT** child's urine (if any) during the night and the first morning urine. To use the urine collection bag:



- A. SEPARATE** infant's legs. Make sure rectum and pubic areas are clean and dry.
 - B. PEEL** off backing paper, exposing adhesive.
 - C. FOR FEMALE USE:** Start bottom adhesion at skin flap separating rectum from vagina and work upward. Press firmly to skin surrounding the vagina with excess of bag toward feet.
 - D. FOR MALE USE:** Position penis naturally through bag opening with excess of bag toward feet. Press adhesive firmly to entire perimeter without puckering.
 - E. REAPPLY** diaper, if required, directly over bag.
- 4. REMOVE** bag carefully and pipette urine, using a fresh disposable pipette, into the provided tube or vial. Please refer to test kit instruction for further directions and fill levels.
 - 5. SCREW** the cap on tightly.
 - 6. DISPOSE** of remaining urine and the urine collection bag appropriately.
 - 7. FOLLOW** remaining kit instructions provided for storage and shipping.

Pediatric ION™ Blood Draw Instructions

Refer to the following for blood draws on patients under 14 years of age:

Patient's Weight (lb.)	Maximum amount of blood to be drawn at one time (mL)
6-8	2.5
8-10	3.5
10-15	5
16-40	10
41-60	20
61-65	25
66-100	30

Adapted from Becan-McBride, K. and Garza, D. *Phlebotomy Handbook: Blood Collection Essentials*. 6th ed. Upper Saddle River, New Jersey: Prentice Hall. 2002.

Please keep in mind that the ION requires approximately 26 mls of blood, and that you may have to perform more than one draw to obtain the required amount. Between draws, you may keep specimens frozen safely for up to 1 month. **Draw the green top Na-heparin tube last**, as it is kept at room temperature and does not preserve as well as the other frozen specimens. **The patient does not need to fast for this portion of the test. The patient needs only to fast for the amino acid (plasma), lipid peroxide (serum), and CoQ10 plus vitamin profile (serum) portions of the test.** Please call customer service at 1-800-221-4640 if you have any further questions or concerns.

Recommended Pediatric ION blood draws for 2-3 sittings

First sitting:

- Draw 2 red/gray top pediatric serum separator tubes
- Let sit for 20-30 minutes to clot blood
- Centrifuge for 15 minutes
- Transfer serum into 2 amber transfer tubes
- Label amber transfer tubes with patient name and draw date
- **Freeze serum until ready to ship**

Second sitting:

- Draw lavender top EDTA tube
- Invert the lavender top EDTA tube 10 times to mix the EDTA with the blood
- Centrifuge immediately for 15 minutes and carefully remove the tube without inverting it
- Use pipette to draw off plasma (be sure NOT to pull up red cells) and transfer to lavender top transfer tube
- Label lavender top transfer tube with patient name and draw date
- Draw 1 red/gray top pediatric serum separator tube
- Let sit for 20-30 minutes to clot blood
- Centrifuge for 15 minutes
- Transfer serum into amber transfer tube
- Label amber transfer tube with patient name and draw date
- **Freeze serum and plasma until ready to ship**

Option to add on second sitting, or do a third day if draw is difficult or necessary:

- Draw green top Na-heparin tube
- **DO NOT SPIN, TRANSFER, OR FREEZE**
- Label tube with patient name and draw date
- **Green top Na-heparin tube should be kept and shipped at room temperature**

REMEMBER to include the frozen urine specimen with the blood specimens