

**Neurodegeneration in Aging Down Syndrome: A Longitudinal Study of Cognition
and Biomarkers of Alzheimer's Disease**

in collaboration with

**The National Centralized Repository for Alzheimer's Disease and Related
Dementias (NCRAD)**

Blood-Based Biospecimen Training Slides

Contact Information

- Questions?

Please contact NCRAD Coordinators at:

- Phone: 1-800-526-2839
- E-mail: alzstudy@iu.edu
- Website: www.ncrad.org



Training Overview:

- Blood-Based Collection Schedule
- Kit Request Module
- Specimen Labels
- Handling/Processing Study Specimens
- Sample Shipping
- NCRAD Website
- Questions?

NiAD Blood Based Collection Schedule for DS Participants:

	Baseline	16-Month	32-Month	48-Month
Serum	X	X	X	**
DNA	X	X*	X	**
Plasma	X	X	X	**
Karyotyping	X			

- * DNA from the 16-Month Visit (University of Pittsburgh ONLY) will not be shipped to NCRAD, but maintained at the site.
- ** No Blood based biomarkers are collected at the 48-month visit

NiAD Blood Based Collection Schedule for Sibling Controls:

	Baseline	16-Month	32-Month	48-Month
DNA	X			
Plasma	X			

* Blood is only collected at the baseline visit for sibling controls.

Kit Request Module

<http://kits.iu.edu/adds-niad>

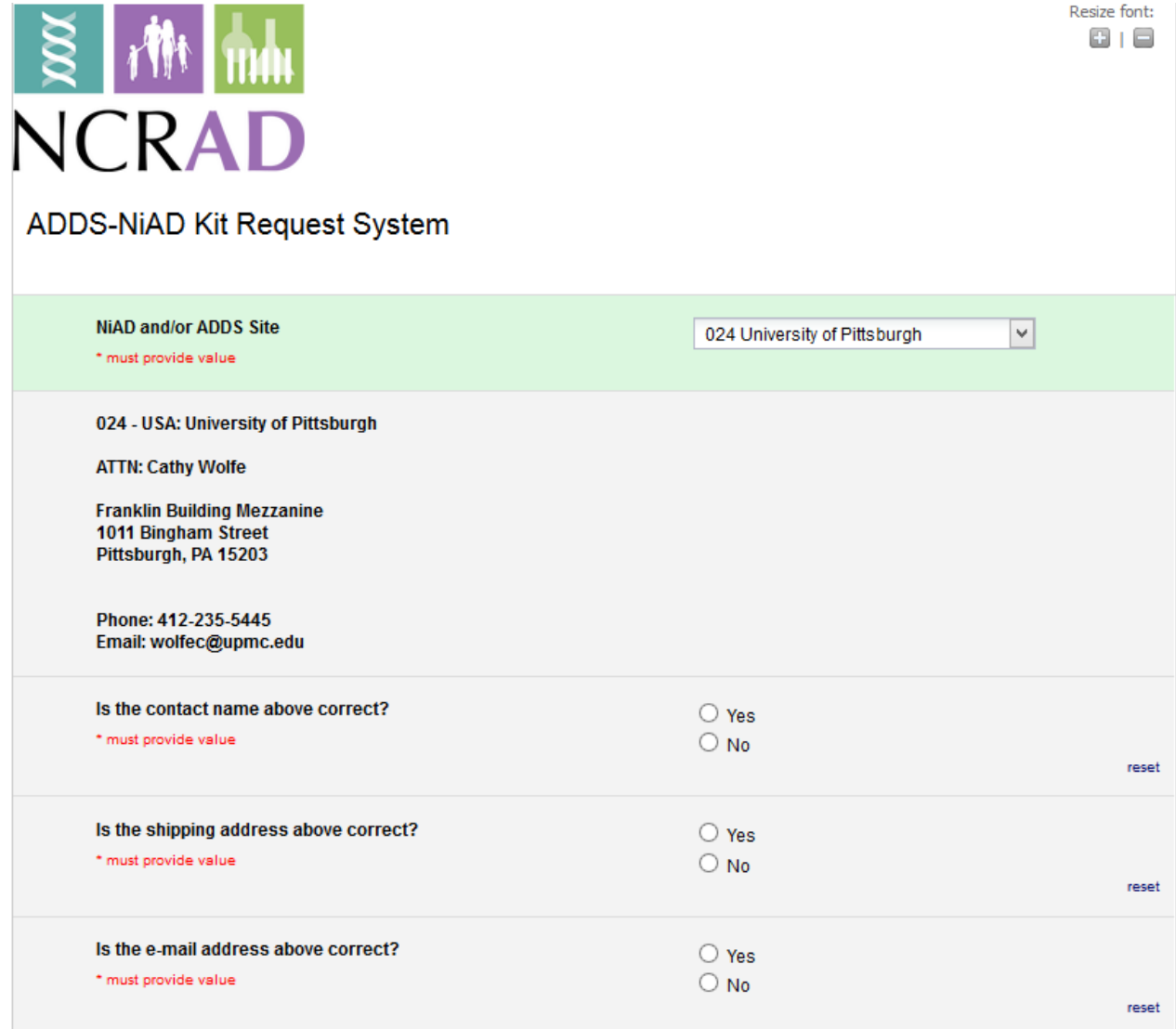



Kit Request Module

- An initial stock of kits will be delivered prior to the designated site specific start date.
- Kits and individual supplies are available to order:
 - NiAD DS Participant Blood Kit
 - NiAD Sibling Control Blood Kit
 - NiAD Frozen Shipping Supply Kit
 - Blood Supplemental Kit
 - CSF Supplemental Supply Kit
 - Lumbar Puncture Trays
 - CSF Shipping Supply Kit

NCRAD Kit Request Module


1. Choose your site from the drop down list
2. The coordinator name and contact information will appear
3. Verify that this information is accurate, correct if necessary



Resize font: 

NCRAD

ADDs-NiAD Kit Request System

NiAD and/or ADDS Site 
** must provide value*

024 - USA: University of Pittsburgh

ATTN: Cathy Wolfe

Franklin Building Mezzanine
1011 Bingham Street
Pittsburgh, PA 15203

Phone: 412-235-5445
Email: wolfec@upmc.edu

Is the contact name above correct? Yes No
** must provide value* [reset](#)

Is the shipping address above correct? Yes No
** must provide value* [reset](#)

Is the e-mail address above correct? Yes No
** must provide value* [reset](#)

ADDS and NiAD Kits Available

NiAD Sibling Control Blood Kit Qty	<input type="text"/>
NiAD DS Participant Blood Kit Qty	<input type="text"/>
ADDS Blood Kit Qty	<input type="text"/>
NiAD Frozen Blood Shipping Kit Qty	<input type="text"/>
ADDS Frozen Blood Shipping Kit Qty	<input type="text"/>
Blood Supplemental Supply Kit Qty	<input type="text"/>
CSF Supplemental Supply Kit Qty	<input type="text"/>
Lumbar Puncture Tray Kit Qty	<input type="text"/>
Frozen CSF Shipping Supply Kit Qty	<input type="text"/>
Do you need Extra Supplies? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No
	reset
Comments	<input type="text"/>
	Expand

Study Visit Kits

NiAD Sibling Control Blood Kit Qty	<input type="text"/>
NiAD DS Participant Blood Kit Qty	<input type="text" value="1"/>
ADDS Blood Kit Qty	<input type="text"/>
NiAD Frozen Blood Shipping Kit Qty	<input type="text"/>
ADDS Frozen Blood Shipping Kit Qty	<input type="text"/>
Blood Supplemental Supply Kit Qty	<input type="text"/>
CSF Supplemental Supply Kit Qty	<input type="text"/>
Lumbar Puncture Tray Kit Qty	<input type="text"/>
Frozen CSF Shipping Supply Kit Qty	<input type="text"/>
Do you need Extra Supplies?	<input type="radio"/> Yes <input checked="" type="radio"/> No
<small>* must provide value</small>	<small>reset</small>
Comments	<input type="text"/>
	<small>Expand</small>
Each NiAD DS Participant Blood Kit Contains:	
1: EDTA (Lavender-Top) Blood Collection Tube (10 ml) 2: Serum Separator (Gold-Top) Blood Collection Tube (5 ml) 21: Siliconized cryovial tube (0.5 ml) with lavender sticker 21: Siliconized cryovial tube (0.5 ml) with red sticker 1: 15 ml conical 1: Cryovial tube (2.0) with blue cap 1: Disposable graduated transfer pipette 46: Pre-printed Collection and Aliquot Tube Label 3: Pre-printed Kit Number Label 4: Labels for handwritten Site and NIAD ID 2: Microcentrifuge tube box (holds up to 25 microcryovials)	
<input type="button" value="Submit"/>	



- Indicate the quantity needed of each kit
- Once selected, kit components of the chosen kit will appear at the bottom of the screen (Pictured)
- Click “Submit” to turn in your request.
- The IU staff will notify you that your request has been received and address any issues.
- ****Note: You can order more than one type of kit in a single kit request****

NCRAD Kit Request Module: When It Must be Used

- Each site will be responsible for ordering kits (labels included) and maintaining supplies on site for scheduled participants
- To order, sites will use the Indiana University online kit ordering module: <http://kits.iu.edu/adds-niad>
- Allow a minimum of **2 weeks** for your order to be processed and delivered.

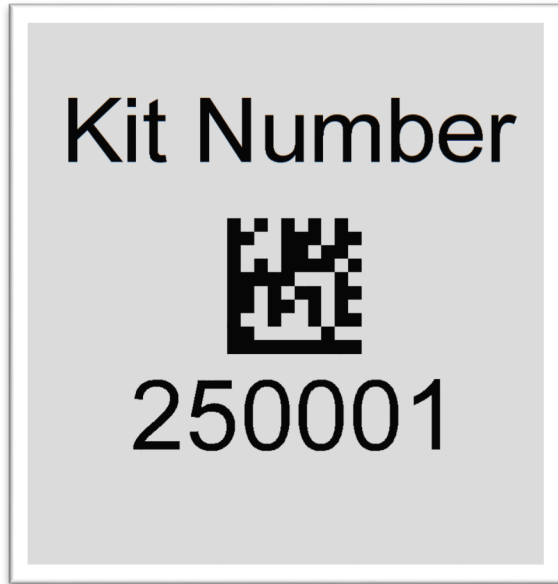
Specimen Labels



Label Type Summary

1. Kit Number Labels
2. Site and NIAD ID Labels
3. Collection and Aliquot Tube Labels
 - Differ by specimen type

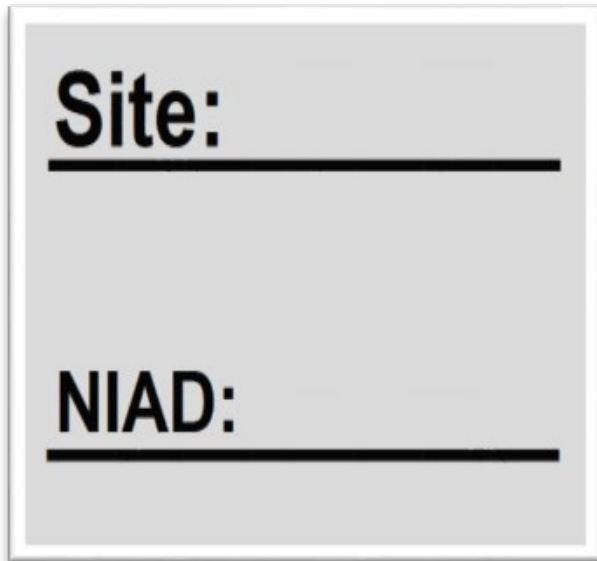
Kit Number Labels



- Used to track patient samples and provide quality assurance
- Will be placed on the following locations:
 1. Biological Sample and Shipment Notification Form
 2. Outside cryobox that houses aliquot tubes during storage and shipment

Provided by NCRAD in the kits

Site and NIAD ID Label

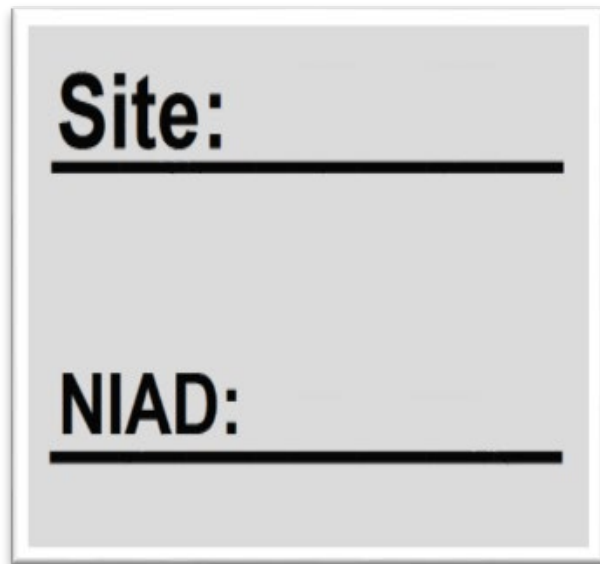


Site:

NIAD:

- Subjects will be identified by their site ID and NIAD ID
- The NIAD ID may only be available shortly before the visit
- Sites will be responsible for handwriting this onto the provided labels
 - Must use fine point permanent marker
 - Each site will receive 4 markers in initial kit supply

Site and NIAD ID Label Cont.



Site:

NIAD:

- Write information on label prior to adhering to tube
- Label will be placed on all collection tubes
 - (2) Serum Separator (Gold-Top) Blood Collection Tube (5 ml)
 - EDTA (Lavender-Top) Blood Collection Tube (10 ml)
- Kits will include one extra label

Collection and Aliquot Tube Labels



- ← Specimen Number (assigned by NCRAD)
- ← Repository Name
- ← Sample Type
- ← Kit # (assigned by NCRAD) unique to the subject and visit

Collection and Aliquot Tube Labels- Blood



- Labels to be placed on ALL collection and aliquot tubes
 1. Serum Separator (Gold-Top) Blood Collection Tube (x2)
 - Serum aliquots
 2. EDTA (Lavender-Top) Blood Collection Tube (x1)
 - Plasma aliquots
 - Buffy coat aliquot

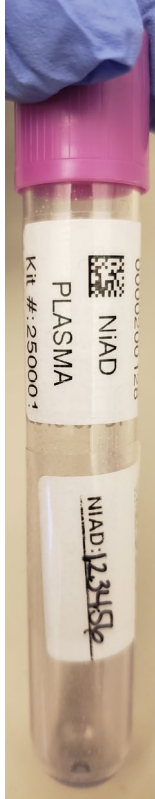
Collection Tubes – Blood



Serum Separator
(Gold-Top) Blood
Collection Tube (5 ml)

Collection/Aliquot
tube label
*place barcode
near top

Site and
Subject
ID label



EDTA (Lavender-Top)
Blood Collection Tube
(10 ml)

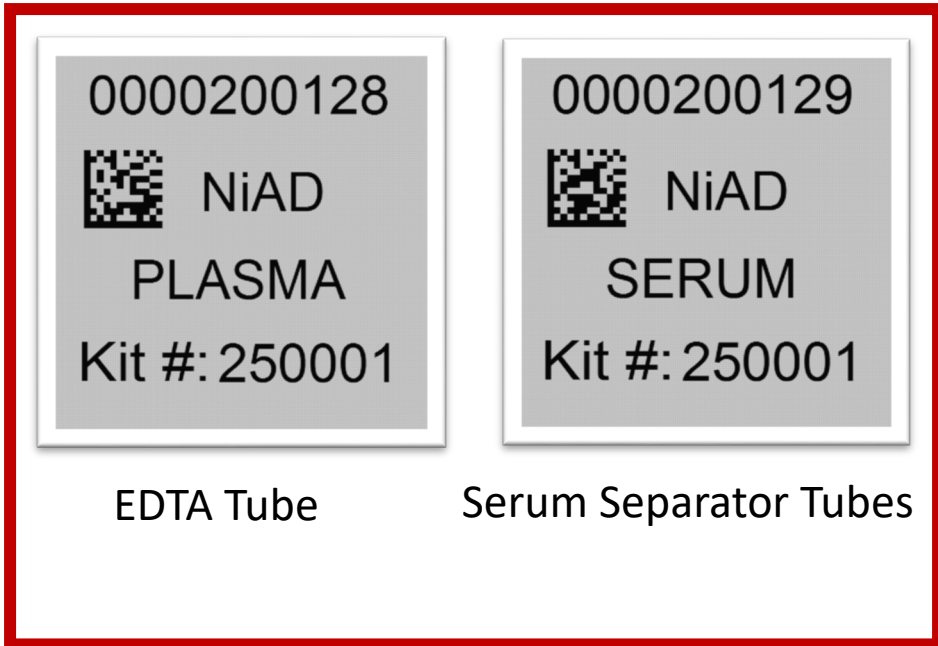


*Drawn for DS Participants ONLY

*Drawn for DS Participants and
Sibling Controls

Collection Tubes - Blood

Label 1: Collection Tube Label



Label 2: Site and NIAD ID Label



- All collection tubes will have two labels
 - The Collection Tube Labels
 - The handwritten Site and NIAD ID Label

Aliquot Tube Labels – Serum, Plasma and Buffy Coat



- **Collection and Aliquot tube label only**
- **Please place barcode near cap**

Handling/Processing Study Specimens



Site Required Equipment

Blood Collection/Safety Equipment

1. PPE
 - Lab Coat, Safety Glasses
2. Tourniquet
3. Alcohol Prep Pad
4. Gauze Pad
5. Butterfly Needles
6. Bandage
7. Sharps Bin and Lid

Processing/Storage Equipment

1. Centrifuge capable of ≥ 2000 rcf with refrigeration to 4°C
2. -80°C Freezer
3. Wet Ice Bucket




Draw Order

*****Important Note*****

In order to ensure the highest quality samples are collected, processed, and stored, it is essential to follow the specific collection, processing, and shipment procedures detailed in the following pages. Please read the following instructions first before collecting any specimens. Have all your supplies and equipment out and prepared prior to drawing blood. Draw blood in the following order:

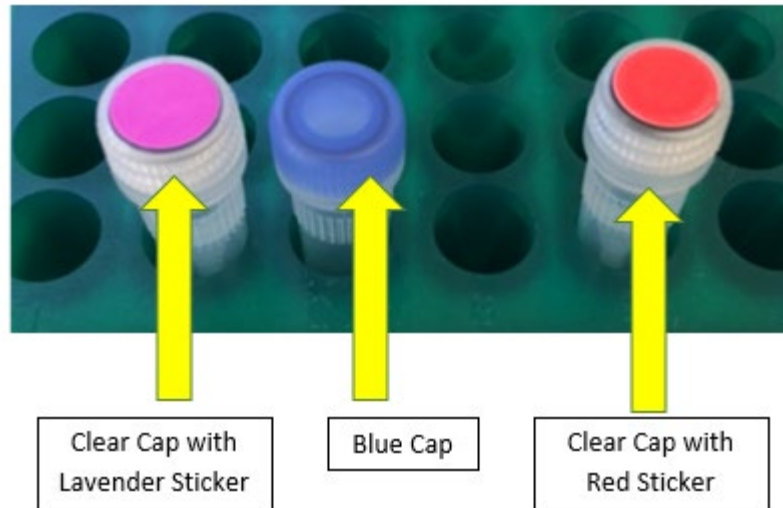
1. Serum Separator (Gold-Top) Blood Collection Tube (5 ml) for Serum x 2
(DS Participants ONLY)
2. EDTA (Lavender-Top) Blood Collection Tube (10 ml) for DNA and Plasma
(DS Participants AND Sibling Controls)
3. Sodium Heparin (Green-Top) Blood Collection Tube (10 ml) for Karyotyping
(Baseline ONLY for DS Participants ONLY)

Sample Collection - Blood

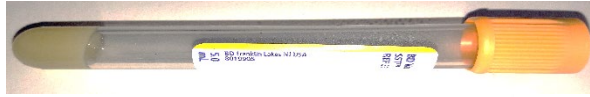
Tube Type	Number of Tubes Drawn	Tube Image
1. Serum Separator (Gold-Top) Blood Collection Tube (5 ml) DS Participants ONLY	x2	
2. EDTA (Lavender-Top) Tube (10 ml) DS Participants and Sibling Controls	x1	
3. Sodium Heparin (Green-Top) Tube (10 ml) BASELINE ONLY DS Participants ONLY	x1	

Aliquot Cap Colors

Cap Color	Sample Type
Clear Cap with Lavender Sticker	Plasma and Plasma Residual (<0.25 ml) (Document Specimen Number and Volume of Residual Aliquot on Sample Form)
Clear Cap with Red Sticker	Serum and Serum Residual (<0.25 ml) (Document Specimen Number and Volume of Residual Aliquot on Sample Form)
Blue	Buffy Coat



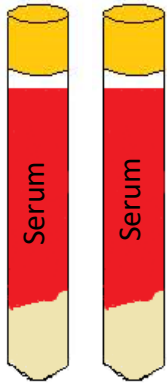
Serum Preparation (5 ml Gold-Top Tube)



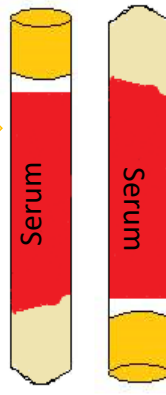
Step One



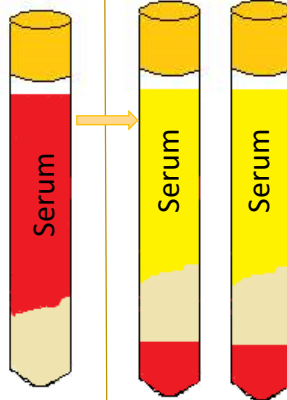
Step Two



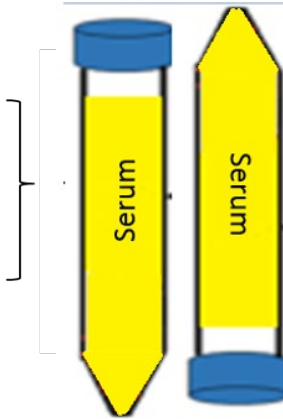
Step Three



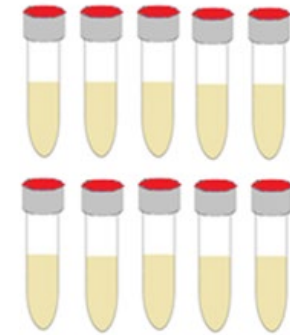
Step Four



Step Five



Step Six



- Store tubes at room temperature.
- Label tubes with preprinted labels prior to blood draw.

- Collect blood in (2) 5 mL Gold-Top tubes allowing blood to flow for 10 seconds and ensure blood flow has stopped.

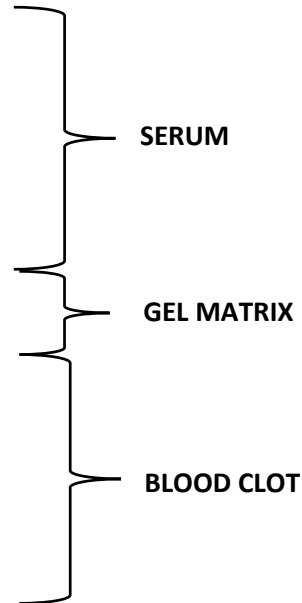
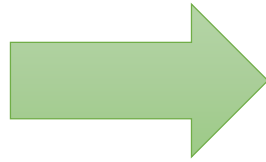
- Immediately after blood draw, invert tube 5 times to mix samples.

- Allow blood to clot for 30 minutes.
- Within 60 minutes of blood draw, centrifuge samples at 2000 x g at 4°C for 10 minutes

- Using a clean transfer pipette, transfer Serum from both 5 mL Gold-Top tubes to the 15 mL conical tube.
- Mix the 15 mL conical tube gently by inverting 3-4 times.

- Adhere preprinted labels to the clear cap cryovials with red stickers
- Aliquot 0.25 ml into each cryovial tube.
- If a residual aliquot is created, document specimen number and volume on Sample Notification Form.
- Store serum aliquots at -80°C until shipment.

Serum Separator Tube (Serum Collection)

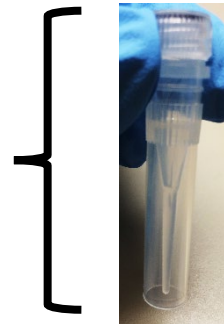
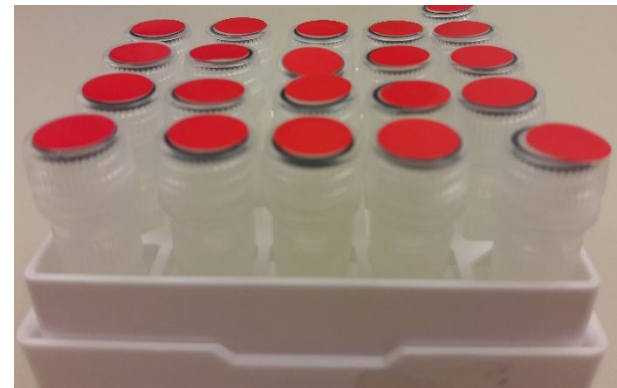


Serum Separator Tube
Immediately after Blood Draw

Serum Separator Tube after
Centrifuge

***Drawn for DS Participants ONLY**

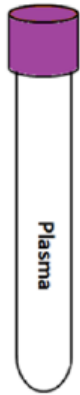
Create 16 to 21 aliquots of 0.25ml; **if residual aliquot created, document specimen number and volume on sample form**



Plasma and Buffy Coat Preparation (10ml Lavender-Top Tube)



Step One



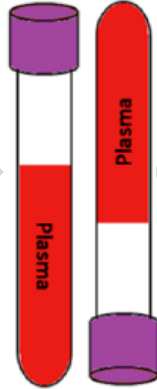
- Store tubes at room temperature.
- Label tubes with preprinted labels prior to blood draw.

Step Two



- Collect blood in Plasma Tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



- Immediately after blood draw, invert tube 5 times to mix samples.

Step Four



- Place thoroughly mixed tube on wet ice until centrifugation begins.

Step Five



- Preferably within 30 minutes of blood draw, centrifuge samples at 2000 x g at 4°C for 10 minutes.
- Samples need to be spun, aliquoted, and in the freezer within 2 hours from the time of collection.

Step Six



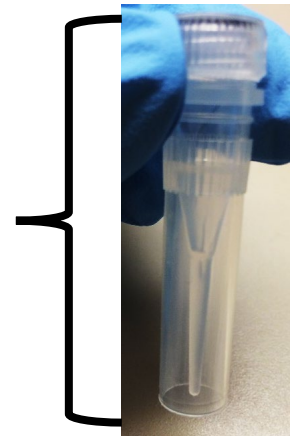
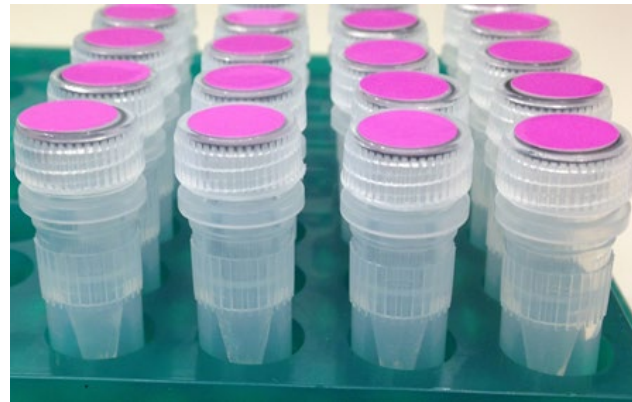
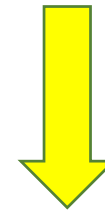
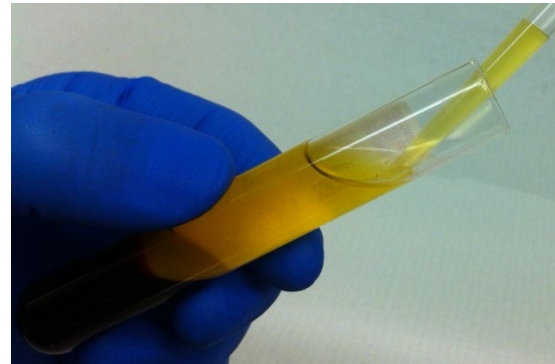
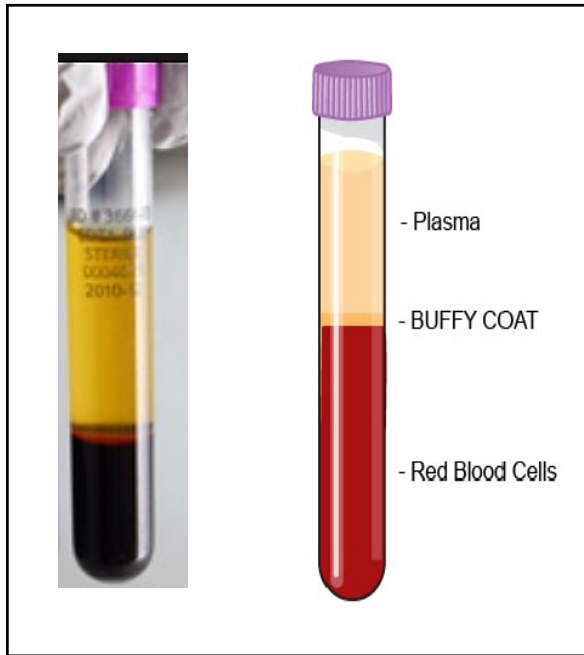
- Adhere preprinted labels to the clear cap cryovials with lavender stickers
- Aliquot 0.25 ml into each cryovial tube.
- If a residual aliquot is created, document specimen number and volume on Sample Notification Form.
- Store plasma aliquots at -80°C until shipment.

Step Seven



- Adhere preprinted labels to the blue cap cryovial.
- Using a clean pipette tip, collect the buffy coat (may have residual plasma and some RBCs included).
- Transfer the buffy coat into the cryovial tube.
- Store buffy coat aliquot at -80°C until shipment.

EDTA Tube (Plasma Collection)

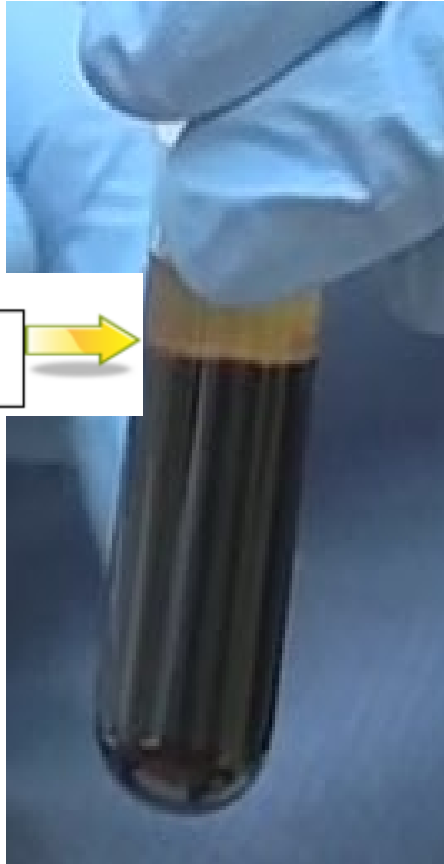


Create 16 to 21 aliquots of 0.25ml; **if residual aliquot created, document specimen number and volume on sample form**

EDTA Tube (Buffy Coat Collection)



Buffy Coat layer
(mixed with RBCs)



Important Note:
❖ Buffy Coat aliquots will be distinguished from the plasma aliquots through a blue cap.

***Drawn for DS Participants and Sibling Controls**

Sodium Heparin Tube (Karyotype)

- Drawn at baseline ONLY
- Tube does NOT get sent to NCRAD
- Used to obtain karyotype for full or partial trisomy 21 by the local clinical lab.
- Check with local lab for the amount of blood needed, storage, and transport conditions



***Drawn for DS Participants ONLY at
Baseline ONLY**

Sample Shipping



Blood Sample Shipment Summary

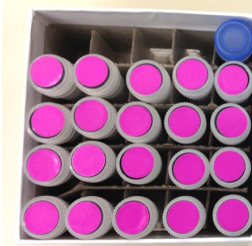
Sample Type	NiAD	Processing/ Aliquoting	Tubes to NCRAD	Ship
<p>Whole blood (Gold-Top SST) for isolation of serum</p> <p>Drawn for DS Participants ONLY</p>	Yes	0.25 ml serum aliquots per 0.5 ml siliconized cryovial (clear caps with RED stickers)	16-21	Frozen
<p>Whole blood (Lavender-Top EDTA) for isolation of plasma & buffy coat (for DNA extraction)</p> <p>Drawn for DS Participants and Sibling Controls</p>	Yes	0.25 ml plasma aliquots per 0.5 ml siliconized cryovial (clear caps with LAVENDER stickers)	16-21	Frozen
	Yes	1 ml buffy coat aliquot per 2.0 ml cryovial (BLUE cap)	1	Frozen

Frozen Sample Shipping

- **Ship Monday-Wednesday Only**
 - Serum, Plasma and Buffy Coat
- Hold packaged samples in a -80°C freezer until pickup.
- Batch Samples together
 - 10 cryoboxes
 - Batch shipping should be performed quarterly or as a full shipment of specimens accumulates, **whichever is sooner.**

Frozen Shipping - Cryoboxes

Place kit number label
on top of cryobox



One cryobox to contain
Serum aliquots, one per
subject.

One cryobox to contain
Plasma and Buffy Coat
aliquots, one per subject.

Place both cryoboxes
into one Biohazard Bag.

Shipping Frozen Samples

- Schedule FedEx or UPS (US and UK)
 - Please note: international shipments require completed International Commercial Invoice, Declaration of Goods Document, and International Fed Ex Airbills
- *Send Biological Sample and Shipment Notification Form to IU (US) **ahead of shipment***
 - **Email: alzstudy@iu.edu** or
 - **Fax: 317-321-2003**

Frozen Shipping – Dry Ice Requirements



- Fully cover the cryoboxes with about 2 inches of dry ice in the provided shipper.
- Each Styrofoam shipper must contain about 45 lbs (20 kg) of dry ice.

Frozen Shipping – Dry Ice Requirements

Class 9 Dry Ice label should not be covered with other stickers and must be completed or the shipping carrier will reject/return your package!

Shipper's Declaration not Required.

Dry Ice amount must be in kilograms.

Note: 2 lbs. = 1 kg.

Airwaybills / airbills must have the following:

1. Dry Ice; 9; UN 1845

2. _____ x _____ Kg
(Number (wt) pkgs)

Dry Ice _____ **kg.**

UN 1845

9

Shipper's Name and Address

Consignee Name and Address

06426 1/01 RFD

Net weight of dry ice in kg

Your name & address

Repository name & address

Frozen Shipping - Fedex Airbill

Airbill must be completed or the shipping carrier will reject/return your package!

FedEx Express Package US Airbill FedEx Tracking Number **8132 0902 9416** Form ID No. **0200**

1 From Please print and press hard. Sender's FedEx Account Number: _____ Date: _____

Sender's Name: _____ Phone (____) _____

Company: _____

Address: _____ Dept./Floor/Suite/Room: _____

City: _____ State: _____ ZIP: _____

2 Your Internal Billing Reference OPTIONAL First 24 characters will appear on invoice. _____

3 To Recipient's Name: **NCRAD** Phone: **(800) 526-2839**

Company: **Indiana Univ School of Med.**

Address: **351 West 10th Street** Dept./Floor/Suite/Room: _____

Address: **Tk-342**

City: **Indianapolis** State: **IN** ZIP: **46202**

4 Express Package Service * To most locations

Next Business Day

FedEx First Overnight Earliest next business morning delivery to select locations. First shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.

FedEx 2Day A.M. Second business morning. Saturday Delivery NOT available.

FedEx 2Day Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required Package may be left without obtaining a signature for delivery.

Direct Signature Someone at recipient's address may sign for delivery.

Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice UN 1845 **1** Cargo Aircraft Only

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below.

Sender Acct. No. in Section 1 will be billed. Recipient Third Party Credit Card Cash/Check

FedEx Acct. No. _____ Bg. _____
Credit Card No. _____

Total Packages _____ Total Weight _____ Total Declared Value _____

lbs. \$ _____ .00

Your liability is limited to US\$100 unless you declare a higher value. See back for details. By using this airbill you agree to the service conditions on the back of this airbill and in the current FedEx Service Guide, including terms that limit our liability.

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fedex.com 1.800.GoFedEx 1.800.463.3339

Ship it. Track it. Pay for it. All online.
Go to fedex.com.

Your name, address & phone

Dangerous goods info (for dry ice shipments only)

Net weight of dry ice in kg

FedEx Account Number

Frozen Shipping - Fedex Airbill – International

Your name, address & phone

Expanded Service International Air Waybill
Express
For FedEx services worldwide. Not all services and options are available to all destinations.

FROM - Sender's name and phone

Date: MM/DD/YYYY
Sender's FedEx Account Number: _____
Sender's Phone: _____

Sender's Name: _____
Company: _____
Address: _____
Address: _____
City: _____ State: _____
Country: _____ ZIP: _____
Email Address: _____
Internal Billing Reference: _____
FIRST 24 CHARACTERS WILL APPEAR ON INVOICE

2 To

Residential Delivery

Recipient's Name: INDIANA UNIV Phone: 800.526.2839
Company: Indiana Univ. School of Med
Address: 351 West 10th Street
Address: TK-342
City: Indianapolis State: IN
Country: USA ZIP: 46202
Email Address: _____
Recipient's Tax ID Number for Customs Purposes: _____
GST/HFC/VAT/IN/EIN/ARN/TIN, OR AS LOCALLY REQUIRED

3 Shipment Information

Total Packages: _____ Total Weight: _____
Shipper's Label and Country/SLAC

Commodity Description <small>DETAIL REQUIRED - PRINT IN ENGLISH</small>	Harmonized Code	Country of Manufacture	Value for Customs

Has EEI been filed in AES?
For U.S. Export Only. Check One

No EEI required, value \$2,500 or less per Schedule B Number; no license required (NLR), not subject to TAR.
 No EEI required, enter exemption number: _____
 Yes - Enter AES proof of filing citation: _____

Total Declared Value for Carriage: _____
Total Value for Customs (Specify Currency): _____
→ If other than NLR, enter License Exemption

The service order has changed in Section 4. Signature options have been added to Section 6.

For Completion Instructions, and details on services and options, see back of fifth page.

FedEx Tracking Number: **8109 4374 9813** Form ID No. **0425**

4a Express Package Service
NOTE: Service order has changed. Please select carefully.
 FedEx Intl. First FedEx Intl. Priority FedEx Intl. Economy

4b Express Freight Service
 FedEx Intl. Priority Freight FedEx Intl. Economy Freight

5 Packaging
 FedEx Envelope FedEx Pak FedEx Box FedEx Tube
 FedEx 10kg Box FedEx 25kg Box Other

6a Special Handling and Delivery Signature Options
 HOLD at FedEx Location SATURDAY Delivery
 Direct Signature Indirect Signature
 No Yes Yes Yes Dry Ice
Restrictions apply for dangerous goods - see the current FedEx Service Guide.

6b Broker Selection
 Intl. Broker Select BROKER'S NAME
Broker's Email: _____
City/State/Province/Country: _____
ZIP/Postal Code: _____

7 Payment
 Sender Acct. No. in Section 1 will be billed. Recipient Third Party Cash Check/ Cheque
FedEx Acct. No.: _____ FedEx Use Only: _____

8 Required Signature
Sender's Signature: _____
FedEx Courier Receipt: _____ Date: _____

Dangerous goods info (for dry ice shipments only)

Net weight of dry ice in kg

FedEx Account Number

Biological Sample and Shipment Notification Forms

- A copy of the sample form *must* be emailed or faxed to NCRAD prior to the date of sample arrival.
- Please include sample forms in all shipments of frozen and ambient samples.
- Email: alzstudy@iu.edu
- Fax: 317-321-2003



NCRAD

Biological Sample Notification Form- Blood



Biospecimen Collection, Processing, and Shipment Manual

Appendix B



Participant ID: NIAD [] [] [] [] [] [] [] [] [] []

Site ID: [] [] [] []

Date: [] [] [] [] / [] [] [] [] / [] [] [] []

Visit Mo: [] [] [] []

Biological Sample and Shipment Notification Form

Please email or fax the form on or prior to the date of shipment.

To: Kelley Faber Email: alzstudy@iu.edu FAX: 317-321-2003 Phone: 1-800-526-2839			
<i>General Information:</i>			
From: _____		Date: _____	
Phone: _____		Email: _____	
Study: NIAD <input type="checkbox"/> DS Participant <input type="checkbox"/> Sibling Control - [Plasma/Buffy Coat (lavender top) only]	Kit #: _____		
Sex: <input type="checkbox"/> M <input type="checkbox"/> F Year of Birth: _____	KIT BARCODE		
FedEx tracking #: _____			
<i>Blood Collection:</i>			
1. Date Drawn: _____ [YYYYMMDD]		2. Time of Draw (24 hour clock): _____ [HHMM]	
3. Last time subject ate (Date): _____ [YYYYMMDD]		4. Last time subject ate (24 hour clock): _____ [HHMM]	
5. Was the EDTA tube placed on ice immediately after inverting tube 5 times until centrifugation began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
<i>Blood Processing:</i>			
Plasma (EDTA/Lavender Top Tube)		Serum (Serum Separator/Gold Top Tube)	
• Time spin started (24 hour clock): _____ [HHMM]	• Time spin started (24 hour clock) (30 minutes after draw time): _____ [HHMM]		
• Duration of centrifuge: _____ [minutes]	• Duration of centrifuge: _____ [minutes]		
• Temp of centrifuge: _____ °C • Rate of centrifuge: _____ x g	• Temp of centrifuge: _____ °C • Rate of centrifuge: _____ x g		
Original volume drawn (1x10 mL EDTA tube): _____ mL	Original volume drawn (2x5 mL Serum tube): _____ mL		
• Time aliquoted: _____ [HHMM]	• Time aliquoted: _____ [HHMM]		
Number of 0.25 mL plasma aliquots created (16-20 total) (Siliconized cryovial): _____ x 0.25 mL	Number of 0.25 mL serum aliquots created (16-20 total) (Siliconized cryovial): _____ x 0.25 mL		
• If applicable, volume of residual plasma aliquot (less than 0.25 mL) (Siliconized cryovial): _____ mL	• If applicable, volume of residual serum aliquot (less than 0.25 mL) (Siliconized cryovial): _____ mL		
If applicable, specimen number of residual aliquot (Last four digits): _____	If applicable, specimen number of residual aliquot (Last four digits): _____		
• Time aliquots placed in freezer (24 hour clock): _____ [HHMM]	• Time aliquots placed in freezer (24 hour clock): _____ [HHMM]		
• Storage temperature of freezer: _____ °C	• Storage temperature of freezer: _____ °C		
Buffy coat aliquot created (one per EDTA tube) (Blue cap cryovial): _____ mL	Note: Bulleted items not entered into eCRF.		
Notes: _____			

Blood collected for:

- Plasma
- Buffy Coat
- Serum

Send by E-mail or Fax prior to shipment, and include a copy in each shipment

NCRAD Website

Helpful Pages



- https://ncrad.org/holiday_closures.html
- https://ncrad.org/friday_blood_draws.html

What to do for Friday Blood Draws

NCRAD is not open for business on Saturday or Sunday; therefore, we ask that no samples be shipped on a Friday. We cannot guarantee the conditions in which the samples will be held by the shipping courier over the weekend. It is important to have plans in place for each type of sample to be held over the weekend prior to shipping. Please refer to the table below for how to handle samples drawn on a Friday.

When possible, please only ship frozen samples on Monday-Wednesday. There is always the potential for an unexpected shipping courier delay and by shipping Monday through Wednesday there should be enough time to receive the samples before the weekend.

Sample Type	Tube Type	Product	Shipment Method	Friday Draw Instructions
Whole Blood	Sodium Heparin	PBMC	Ambient	DO NOT DRAW ON FRIDAY. Must be drawn on Monday – Thursday.
Whole Blood	EDTA Tube	DNA Only	Ambient	Do NOT refrigerate. Please keep sample at room temperature until the specimen can be shipped via next day delivery methods the following Monday.

Holiday Closures

Date	Holiday
January 1	New Year's Day
3 rd Monday in January	Martin Luther King, Jr Day
4 th Monday in May	Memorial Day
July 4	Independence Day (observed)
1 st Monday in September	Labor Day
4 th Thursday in November	Thanksgiving
4 th Friday in November	Friday after Thanksgiving
December 25	Christmas

https://www.ncrad.org/resource_adds_niad.html

ADDS/NiAD Active Study Page

ADDS/NiAD Active Study Page



Welcome ADDS/NiAD Study staff, coordinators, and PI's. This section encompasses study specific tools and videos for your reference. If you have any questions, comments, or new ideas, please contact NCRAD by email or phone 317-274-7546 or 800-526-2839.



ADDS Blood-Based Biomarker Collection Schedule for NCRAD:

	Baseline	3-Month	16-Month	19-Month	32-Month	35-Month
DNA		✓		✓		✓
Plasma		✓		✓		✓
Serum		✓		✓		✓

NiAD Blood-Based Biomarker Collection Schedule:

	Baseline	16-Month	32-Month	48-Month
DNA	✓	✓*	✓	**
Plasma	✓	✓	✓	**
Serum	✓	✓	✓	**

* DNA from the 16-Month Visit (University of Pittsburgh ONLY) will not be shipped to NCRAD, but maintained at the site.

**No Blood Based Biomarkers are collected at the 48-month visit.

NiAD Blood-Based Biomarker Collection Schedule for Sibling Controls:

	Baseline	16-Month	32-Month	48-Month
DNA	✓			
Plasma	✓			

Study Resources

- Kit Request Module
- Study Specific Sample Notification Forms
- ADDS/NiAD Manual of Procedures
- Study Related Video Tutorials
- ADDS/NiAD Training Slides



Download Documents

- ADDS Sample Form
- NiAD Sample Form
- ADDS Manual of Procedures
- NiAD Manual of Procedures
- ADDS Study Training Slides
- NiAD Study Training Slides

Additional Resources

- ADDS/NiAD Kit Request System
- Friday Blood Draws
- Shipping Address
- Holiday Closures

Questions/Comments

Email: alzstudy@iu.edu
Phone: 800-526-2839

Contact Information

- Questions?

Please contact NCRAD Coordinators at:

- Phone: 1-800-526-2839 or 317-274-7546
- E-mail: alzstudy@iu.edu
- Website: www.ncrad.org

