Tooth Collection
Middle Childhood & Adolescence

Collection, Processing and Storage Protocol
Home or Site Collection

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ECHO Tooth Collection, Processing and Storage Protocol

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A. Overview

- A caregiver will collect child teeth as the child loses them. The caregiver will also complete a Specimen Information Form (SIF) on child’s behalf.
- Study staff will distribute the tooth collection kit to the caregiver. The study staff can mail the kit, provide it during a site visit, or take it to the caregiver’s home.
- Once collected, the caregiver can mail the tooth and completed SIF to the site, bring it to the next site visit, or study staff can pick it up from the caregiver’s home.
- Following receipt of the child tooth and SIF on site, study staff should send a new tooth collection kit to the primary caregiver for collection of each subsequent child tooth as it is lost.

B. Guidelines

- At least one, and up to three teeth, will be collected per child.
- Encourage caregiver to return freshly shed teeth immediately via mail.
- Teeth collected will be shed deciduous (baby) teeth.
- Caregiver can also provide child teeth that are cracked or have cavities (though these are not preferred).
- If caregiver has a “mixed drawer” of teeth from multiple children, these also can be collected but the caregiver must provide information for each tooth on a separate SIF.
- There is no “age limit” for a tooth specimen, i.e. there is no cutoff for how long it’s been since it has fallen out.
- Provide one tooth collection kit to the caregiver for every child. If the caregiver indicates that all baby teeth have been shed and that none of these have been retained, do not provide a collection kit.
- If more than one tooth is already available, it is recommended that the study staff provide only one collection kit at a time. Upon receipt of the first tooth on site, study staff should provide a second collection kit.
- Study staff should ask the caregiver of adolescent children who did not provide teeth in their middle childhood if they have any of their child’s teeth available. If ‘yes,’ site staff should provide a tooth collection kit.
- For caregivers who have not provided three teeth for every child or have not indicated that no more teeth are available, study staff should do a reminder check-in about additional teeth at least once annually.
- Fun Tip: Provide caregiver parents a token $1 bill for each tooth offered as a handy dollar bill for “Tooth Fairy” purposes (Note: the “Tooth Fairy” custom is culturally dependent, for example, families of
Mexican descent may invoke “Ratoncito Perez” instead of the “Tooth Fairy”). The Tooth Collection Instruction Sheet (CIS) includes a space for the $1 on the back.

C. Collection Kit, Supplies and Kit Assembly

1. Tooth Kit (Fisher BioServices)
   - One (1) collection tube
   - One (1) biohazard bag
   - One (1) triplet specimen ID labels

2. Supplies (Site)
   - One (1) Storage Container
     - Recommendation: 5 x 5 x 3 in box/ 4x4 grid (holds 16 tubes in biohazard bags)
   - Tooth – Collection Instruction Sheet (CIS)
   - Tooth – Specimen Information Form (SIF)
   - Tooth – Specimen Tracking Form (STF)
   - Transport materials for home collections:
     - Collection kit distribution by mail:
       - Padded envelope
       - Appropriate postage
b. Specimen receipt at the site by mail:
   i. Padded envelope
   ii. Appropriate postage

3. Kit Assembly

Follow the below steps to assemble the collection kit and prepare for the collection prior to meeting with the participant/caregiver.

- Confirm that the collection kit includes a biohazard bag, a collection tube and triplet specimen ID labels.
- Print CIS, SIF, and STF.
- Fill out the headers on the SIF and STF. Add child’s name on the first question of the SIF.
- There will be three identical labels for each specimen ID. Affix the first label to the collection tube, the second matching label to the SPECIMEN LABEL field on the STF and the third matching label to the SPECIMEN LABEL field on the SIF.
  Note: Study staff must complete the above steps before providing the materials to the caregiver to prevent misplacement or confusion about the forms/tubes.
- Place the labeled collection tube and SIF, and CIS in the same biohazard bag.
- Retain the STF at the site.
- Fill out the KIT DISTRIBUTION section on the STF.

4. Home Collection: Kit Distribution and Specimen Receipt

Use the following steps to prepare for distribution of the collection kit and receipt of specimen by mail:

- Add the following items on the front of the padded envelope:
  a. Appropriate postage
  b. Place a site address label in the upper left corner
  c. Place a caregiver address label in the center
- Place the biohazard bag prepared in the previous step in the padded envelope.
- Prepare another prepaid return mailer (padded envelope) for the caregiver to send the tooth to the site.
  a. Add appropriate postage
  b. Place a caregiver address label in the upper left corner
  c. Place a site address label in the center
  d. Fold the return mailer and place in the padded envelope
- Mail the padded envelope to the caregiver.
• Complete the **KIT DISTRIBUTION** section on the STF.

D. Collection

1. Pre-Collection Instructions for the Study Staff
   • If the caregiver is on-site, review the collection kit contents and collection instructions with the caregiver to ensure that he/she understands the procedure.

2. Collection Instructions for the Participant/Caregiver
   • Refer to the Tooth Collection Instruction Sheet (CIS).

3. Post-Collection Instructions for the Study Staff
   • The caregiver will mail the tooth to the site if he/she agreed to mail and study staff provided the return mailer. Otherwise, study staff can pick up the collection from the caregiver’s home or the caregiver can bring the collection to the site.

E. Processing

• Upon specimen collection or receipt of the specimen at the site, check the collection tube label against the SIF to ensure that the specimen ID labels match.
• Complete **STEP 1: COLLECTION** and **STEP 2: RECEIPT** sections on the STF.

F. Storage

• Store tooth collection tube placed in a biohazard bag in a labeled storage container.
• Temperature should be ambient. Storage must be in a dry place away from direct sunlight.
• The storage container can be placed on a shelf, such as a filing cabinet, until shipped to the Biorepository.
• Complete **STEP 3: STORAGE** section of the STF.
• Data from the SIF and STF should be entered into Bio-Track immediately, or within 48 hours of storing the specimen.
• Retain the SIF and STF at the site.

G. Shipping to Biorepository

This information is available in the Laboratory Manual of the ECHO-wide Cohort Data Collection Protocol.
H. Supporting Documents

1. Tooth – Collection Instruction Sheet (CIS)
2. Tooth – Specimen Information Form (SIF)
3. Tooth – Specimen Tracking Form (STF)
4. Tooth – Specimen Tracking Form (STF) Completion Instructions