



Biopsy Procedure

1. Complete tetracycline labeling. This must be done prior to biopsy whenever possible, and is necessary whenever estimates of mineralization or bone formation are required.

Labeling Schedule

Days 1–3: Give tetracycline 250 mg 4 times a day. If eGFR (or a measured GFR) is less than 30 mL/minute, including dialysis patients, demeclocycline 150 mg 2 times a day should be used instead.

Days 4–17: Give no label.

Days 18–20: Give tetracycline 250 mg 4 times a day. If eGFR (or a measured GFR) is less than 30 mL/minute, including dialysis patients, demeclocycline 150 mg 2 times a day should be used instead.

Note:

- If tetracycline is not available, any other tetracycline is acceptable (ie, doxycycline 100 mg 2 times a day) if eGFR is at least 30 mL/minute.
- Dairy products should not be ingested at the same time as the tetracycline because dairy may interfere with the tetracycline uptake.

2. Complete a “Bone Histomorphometry: Patient Information” (T352) that includes dates of tetracycline use, including name of tetracycline derivative, dose, and frequency of tetracycline administration for histomorphometric analysis.

3. Perform biopsy any time from day 23 to day 27.

Note: The standard biopsy site is located slightly posterior to the anterior superior iliac spine.

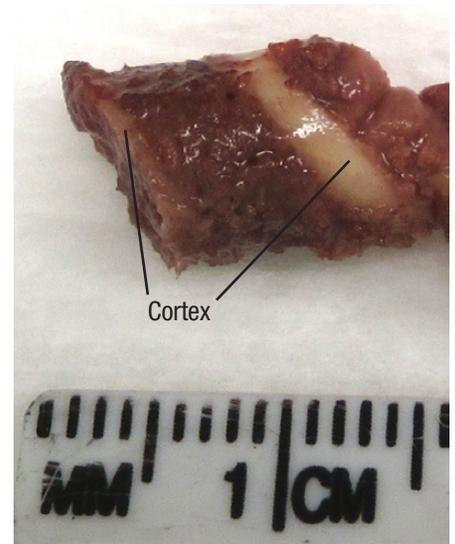
4. A transiliac biopsy 5 mm or more in length. A small or fragmented biopsy provides less information and compromises the quantitative analysis. Therefore, an intact core of bone is strongly preferred.

Note: It is preferred that both cortices are present. However, one will suffice if necessary.

5. Place fresh biopsy into 70% ethanol for shipping.

6. Mail at room temperature in protected glass or plastic container not contaminated with aluminum or iron (Metal Free Specimen Vial – Supply item: T173).

7. Send to Mayo Clinic Laboratories via courier or an express overnight delivery service. Shipping address:
Mayo Clinic Laboratories
3050 Superior Drive NW
Rochester, MN 55901



MCL Tissue Processing and Procedure

The tissue is dehydrated in ethanol, embedded in plastic by controlled temperature polymerization, cut into 5-micron sections, stained and mounted. Quantification is carried out using a semi-automated method. Interpretation of results and slides are done by a clinical endocrinologist trained in histomorphometric techniques. A pathologist interprets the bone marrow from the hematoxylin-eosin-stained slides.

Questions

Call 800-533-1710