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**Lab Dept:**                      **Anatomic Pathology**

**Test Name:**                    **CILIA BIOPSY**

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***General Information***

**Lab Order Codes:**            Orders are communicated via the Surgical Pathology request form

**Synonyms:**                    Ciliary biopsy; Cilia motility; Immotile cilia; Cilia B Frequency

**CPT Codes:**                    88305 – Level 4, surgical pathology, gross and microscopic exam  
88329 – Pathology consult during surgery  
88348 – Electron microscopy, each sampled site

**Test Includes:**                Electron microscopy (EM) of Cilia biopsy

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***Logistics***

**Test Indications:**            Useful for evaluating cilia for motility and ultrastructure in cases of chronic upper respiratory infection and/or suspected immotile cilia syndrome or Kartegener Syndrome.

**Lab Testing Sections:**        Anatomic Pathology – Sendouts

**Referred to:**                    Mayo Medical Laboratories

**Phone Numbers:**              MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:**            Monday - Thursday

**Turnaround Time:**            7 - 21 days

**Special Instructions:**        Obtain the biopsy from the upper airways or the carina. The mucosa over the adenoids is more likely to yield an interpretable sample of cilia; turbinate biopsies frequently show inflammation-associated loss of ciliated epithelium.

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***Specimen***

**Specimen Type:**                Tissue

**Container:**                    Biopsy for electron microscopy: obtain container with fixative from laboratory.

**Draw Volume:**                See Collection

<b>Processed Volume:</b>	See Collection
<b>Collection:</b>	<p>Specimen for direct observation of motility: transport fresh to lab immediately in lactate ringers. Solution can be obtained from the Histology Lab.</p> <p>Specimen for electron microscopy: place in fixative immediately upon biopsy.</p> <p>Trump's fixative (4% formalin: 1% glutaraldehyde) (Supply T130) is optimal. If no tissues fixed primarily in glutaraldehyde are available, shavings can be taken from the surface of tissues in formalin, where fixation was most rapidly achieved.</p>
<b>Special Processing:</b>	N/A
<b>Patient Preparation:</b>	Physician preference
<b>Sample Rejection:</b>	Improper specimen, unlabelled or mislabeled specimen

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### ***Interpretive***

<b>Reference Range:</b>	Interpretive report (final reports will be scanned into the HIS and copies distributed to the ordering MD and surgeon)
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	Artifactual loss of cilia or secondary loss of cilia due to chronic inflammatory changes, insufficient cilia numbers for definite diagnosis by electron microscopy.
<b>Methodology:</b>	Direct semi-phase-contrast microscopy, routine light microscopy, transmission electron microscopy
<b>References:</b>	<p>Pathology Department, Children's Hospitals and Clinics</p> <p>Mayo Medical Laboratories, February 2012</p>