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**Lab Dept:** Microbiology

**Test Name:** DERMATOPHYTE CULTURE

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***General Information***

**Lab Order Codes:** DTMC

**Synonyms:** Culture, Fungus for Dermatophytes Only; Fungus Culture for Dermatophytes Only; Culture, Dermatophyte

**CPT Codes:** 87101 - Culture, fungi isolation, with presumptive identification of isolates; skin, hair or nail

**Test Includes:** Selective isolation and presumptive identification of dermatophytes from skin, hair and nails.

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***Logistics***

**Lab Testing Sections:** Microbiology

**Phone Numbers:** MIN Lab: 612-813-5866

STP Lab: 651-220-6555

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Positive results are reported when detected. Negative cultures are final after 2 weeks.

**Special Instructions:** **Specific site** and **date/time of collection** are required for specimen processing. Note any antifungal therapy taken recently.

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***Specimen***

**Specimen Type:** Hair, nails or skin

**Container:** **Onsite collections:** Sterile container or Dermatophyte Test Medium (available in Microbiology)

**Offsite collections:** Sterile container

**Volume:** As much as possible, enough scrapings to cover the head of a thumbtack.

**Collection:** A Wood's lamp is useful in the collection of specimens in tinea capitis infections, since hairs infected by most members of the genus *Microsporum* frequently exhibit fluorescence under a Wood's lamp. However, in tinea capitis due to *Trichophyton* species, infected hairs do not fluoresce.

**Hair:**

1. With forceps, collect at least 10 - 12 affected hairs with the base of the shaft intact.
2. Implant on the surface of dermatophyte test medium (DTM) or place in a sterile container.

**Nails:**

1. Remove nail polish.
2. Wipe nail with 70% alcohol using gauze (not cotton).
3. Clip a generous portion of the affected area and collect scrapings of the excess keratin produced under the nail.
4. Implant on the surface of DTM or place in a sterile container.

**Skin:**

1. Cleanse the affected area with 70% alcohol.
2. Gently scrape the surface of the skin at the active margin of the lesion. **Do not** draw blood.
3. Scrape sample directly into DTM and implant. If DTM is unavailable, place sample in a sterile container or between 2 clean, glass slides. Tape the slides together before transporting.

**Transport/Storage:** **Onsite collections:** Transport to the Microbiology Laboratory immediately.

**Offsite collections:** Do not refrigerate, store at room temperature. Specimens must be promptly transported to the laboratory, with the next available courier, not to exceed 24 hours from the time of collection.

**Sample Rejection:** Specimen not submitted in appropriate transport container; improperly labeled specimen; insufficient volume; external contamination. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen will be requested before the specimen is discarded.

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***Interpretive***

**Reference Range:** No dermatophytes isolated after 2 weeks.

**Limitations:** A single negative culture does not rule out fungal infection.

**Methodology:** Dermatophyte Test Medium (DTM)

**References:**

Cook, JH, and M Pezzlo (1992). Specimen receipt and accessioning. Section 1. Aerobic bacteriology, 1.2.1-4. In HD Isenberg (ed) Clinical Microbiology Procedures Handbook. American Society for Microbiology, Washington DC

Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC

Miller, J Michael, and HT Holmes (1999) Specimen Collection, Transport, and Storage In PR Murray et al, (ed), Manual of Clinical Microbiology, 7<sup>th</sup> edition, American Society for Microbiology, Washington DC, pp 33-104

**Updates:**

8/7/13: Removed transport >2 hours as a reason for specimen rejection.

11/11/14: Offsite collections added.