



## Direct Exam Sampling Guide

Tape lift, bulk and swab sampling, are techniques used for direct examination. A direct exam allows for the immediate determination of the presence of fungal spores as well as what types of fungi are present. Direct examinations should only be used to sample visible mold growth in a contaminated area since most. Most surfaces collect a mixture of fungal spores that are normally present in the environment.

### BENEFITS

1. The direct exam is inexpensive, and can be performed quickly.
2. A useful test for initial site sampling.
3. Direct examination of a surface indicates all mold present in a given area.
4. Direct sampling may reveal indoor reservoirs of spores that have not yet become airborne.

### DISADVANTAGES

1. Areas of fungal growth are often small and scattered, so they may not be picked upon sampling.
2. Not all the spores seen under the microscope may be viable (alive).
3. Tape lifts are not able to be cultured.
4. If a direct examination of a swab sample is taken, there is no follow up culture.
5. Direct examinations of dirt/soil and dust samples can not be performed.

### MATERIALS

For Bio-Tape™:

1. Bio-Tape™ slides (**provided free at your request by EMSL**).

For bulk:

1. Sterile container or new plastic bag or Whirl-a Pack to hold and transport specimen.  
(**provided free at your request by EMSL**) .

For swab:

1. Sterile culturette/swab with appropriate buffer solution to collect and transport specimen  
(**provided free at your request by EMSL**).

For all matrices:

1. Latex/nitrile gloves (**provided free at your request by EMSL**).

## **SAMPLING PROCEDURES**

### Bio-Tape™:

1. Grab end of clear tape and lift. Avoid touching the sticky side.
2. Wearing gloves, apply the central inch of tape to the suspect area (choose one that is free of extraneous debris). Apply light pressure to the non-adhesive side.
3. Pull tape off surface with slow, steady pressure, holding the tape edges only.
4. Apply sticky side of tape to the original plastic slide.
5. Ensure there are no folds or creases in the tape.
6. Put plastic slide with tape sample into original plastic holder.

### Bulk:

1. Wearing latex gloves, take a small piece of the suspect material.
2. Place piece inside clean sterile container or new plastic bag or whirl-a-pack bag.
3. Close bag or cap container.

### Swab:

1. Wearing gloves, remove swab from packaging material.
2. Remove plug from media tube.
3. Swab the desired area thoroughly, rolling the swab lightly back and forth over sampling area.
4. Insert the swab in the tube, and firmly close cap.

### For all matrices:

1. Label each sample with appropriate information.
2. Complete an EMSL Chain of Custody (COC), available on the website ([www.emsl.com](http://www.emsl.com)), detailing client name and information, project name or number, sample #, and a description of the area.

## **QUALITY CONTROL SUGGESTIONS**

### For tapelift:

1. Do not fold tape onto itself.

### For bulks:

1. Send a representative sample of the specimen if large. This prevents over-handling of the specimen and possible contamination. If analysis of a specific portion of sample is required, please note area(s) or take a tape lift of area.

### For swab:

1. For semi-quantitative sampling, the area swabbed needs to be entered on the chain of custody.

### For all matrices:

1. Apply tape, apply swab, or take a small piece of material ONLY from areas where visible mold is seen.