

# DIRECT IMPRESSION



## How to:

- Use the edge of the slide at a 30-45 degree angle to disrupt the top layer of skin, get under a crust, open a pustule, dislodge scale, etc.
- Firmly press/smear material onto the slide.

## When:

- Moist, greasy or exudative lesions.
- Most common technique for removing crusts or sampling papules and pustules.

## Pro tips:

- You get more intact cells the gentler you are. However, you want to be firm enough to obtain a significant sample.
- Can be done at interdigital spaces by using your finger on the opposite side of the interdigital webbing and pushing up to make skin more accessible.
- Can open pustules with a needle as alternative and then press slide on exudate.



Allow collected material to dry on the slide.



Exudative samples can be heat fixed by using a hair dryer on low-heat or lighter on the side of the slide lacking sample. Wipe off soot if a lighter is used.



Modified Wright stain (Diff-Quik) is most often used since it is quick and easy.

Three stains:

- Fixative: methanol
- Solution I: cytoplasmic, eosinophilic, red/pink
- Solution II: nuclear, basophilic, blue/purple



How to stain the slide:

- Dip slide in each solution 5-8 times
- Allow excess solution to drain into jar and touch end of slide on paper towel to take away excess - prevents dilution of next solution
- After solution II, dip in distilled water or rinse under tap water (side with no sample exposed to stream)
- Air dry, use hair dryer (low heat) or blot in bibulous paper

# QUICK CLINIC REFERENCE FOR MOST COMMON SKIN CYTOLOGY METHODS



For more information visit [thedermvet.com](http://thedermvet.com)



## What are you looking for?



### INFECTION

- Bacteria
- Yeast
- Fungal spores



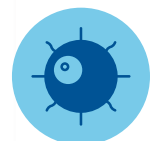
### INFLAMMATION

- Neutrophils: infection, inflammation
- Eosinophils: hypersensitivity, parasites
- Macrophages: infection, inflammation



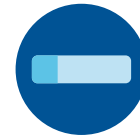
### ACANTHOLYTIC KERATINOCYTES

- Suggestive of pemphigus



### NEOPLASTIC CELLS

## What do you need?



### SLIDES

- +/- coverslip (if preserving slide long term)
- +/- tape



### DIFF-QUIK STAIN



### MICROSCOPE



### IMMERSION OIL



### CONFIDENCE!

*Remember, practice makes perfect like anything else!*

## TAPE PREP



### How to:

- Tear strip of tape slightly shorter than length of slide.
- Firmly press sticky side of tape to skin surface repeatedly.
- Two different ways to stain:
  - 1 Place tape adhesive side down onto slide. Lift edge of tape and apply a drop of final Diff-Quik stain (purple) to the slide.
  - 2 Stain the tape in the red and purple stain. Place on a microscope slide for evaluation.

*\*Note: You do not need to use fixative. This will remove the sticky portion of tape and your sample.*

### When:

- Collecting skin surface debris at tricky spaces like lip margins, nail beds and interdigital spaces.
- Dry, scaly lesions.

### Pro tips:

- Use clear acetate tape or packing tape. You will get more background debris so get comfortable with normal amounts!

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