

## CYTOLOGY – BASIC DESCRIPTIONS

**Scan the slide at low power and assemble your description of the background. This should always include:**

- 1) Cellularity (low, moderate, high)
- 2) Color (pink/purple)
- 3) Texture (eg, stippling, homogenous, presence of granules, adjuvant material)
- 4) RBCs (few, moderate, many)

**Add the following to your background description, if present:**

- 5) Protein crescents
- 6) Lymphoglandular bodies
- 7) Disrupted cells/debris
- 8) Extracellular organisms
- 9) Crystals (eg, hematoidin, cholesterol)
- 10) Nuclear streaming (mild, moderate, severe)

**For inflammatory processes describe:**

- 1) Nucleated cell differential (eg, many neutrophils (90%), few macrophages (10%))
- 2) Features of each cell type present – eg, degeneration, vacuolation
- 3) Intracellular organisms – rods, cocci, fungal hyphae (angles of branching, thickness), yeast (size, shape, color, broad or narrow based budding, capsule/wall), protozoa (size, shape, color, nuclear characteristics, wall features)
- 4) Intracellular material – eg, adjuvant
- 5) Extracellular organisms (can mention in your background)

**For neoplastic processes describe:**

- 1) Cell types – round/discrete vs mesenchymal vs epithelial
- 2) How cells are organized – solitary, aggregates, clusters
- 3) Cell size, shape
- 4) Nuclear size, nuclear shape (round, ovoid, oblong)
- 5) Presence, number of nucleoli
- 6) Chromatin pattern (fine, homogenous, ropey, dense, coarse)
- 7) Cytoplasm: amount, color, texture, vacuolation, etc.
- 8) Cytoplasmic borders (distinct, indistinct)
- 9) N/C ratio (high, low, variable)
- 10) Anisocytosis (minimal, moderate, marked, severe)
- 11) Anisokaryosis (minimal, moderate, marked, severe)
- 12) Pleomorphism of any type (nuclear, cytoplasmic)
- 13) Mitotic figures (number of, normal vs bizarre)
- 14) Matrix material, if present (sarcomas)

**Miscellaneous things:**

- 1) Erythrophagocytosis
- 2) Leukophagocytosis
- 3) Mention normal cells that are present, eg osteoclasts, fibroblasts, etc.
- 4) Mention inflammatory cells that are present in your neoplastic sample – eg eosinophils in your mast cell tumor or neutrophils in a sarcoma.