

## Pathology: Examining the Process of Disease

### Classification of Pathological Processes:

01** Malformation	04** Infarcts & Hemorrhages	08** Benign Neoplasms
02** Infections/ Parasites	06** Blockages	09** Malignant Neoplasms
03** Injury & Inflammation	07** Extraneous deposits	10** Degeneration

01\*\* Malformations: The organ received incorrect signals during development leading to defective formation. Could be a result of altered gene expression or environmental signals. Some malformations affect organ function, others affect location or appearance only.

02\*\* Infections/ Parasites: The organ has been invaded by foreign organisms (bacteria, viruses, parasites). The physical presence may be disruptive. The body's response may be disruptive. The organism may produce a harmful substance (toxin).

03\*\* Injury & Inflammation: Rupture, tearing, wounding, scarring. This can be on a large scale (bullets, car accidents) or on a microscopic scale – silicon particles, damage by viruses leading to scarring,

04\*\* Infarcts & Hemorrhages: Blockages of the blood supply leading to cell death from hypoxia or rupture of the blood vessels.

06\*\* Blockages: Physical restriction of tubes. This can lead to build up of material on the blind end of the tube, or inability for necessary products to enter.

07\*\* Extraneous deposits: Precipitation of proteins, deposits of minerals affecting normal function.

08\*\* Benign Neoplasm: Tumours that remain confined to the organ, often slow growing, do not disrupt general function.

09\*\* Malignant Neoplasms: Out of control cell growth, usually with loss of function, cells travel to other organs. Major disruption of function. Either arise in the organ or have arrived from another site (metastasis).

10\*\* Degeneration: catch all term for those processes that lead to organ failure due to cellular degeneration of obscure or unknown origin. Many of the specimens in this category now have known mechanisms but have yet to be reclassified in the museum.

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**Exercise:**

Pick 2 Organ Systems and determine which type of process is most common and which is least common in that system.

Organ System	Most common	Least common

**Discussion**

What is it about an organ system that makes one type of process more common than another?