

□ Definition: Anaplastic

Anaplastic (from Greek *ana-* = backward + *plasis* = formation) refers to cells or tissues that have **lost their normal structure and differentiation**, indicating **malignant transformation**.

□ Pathological Characteristics

Anaplastic cells typically show:

- **High mitotic activity**
- **Nuclear atypia** (abnormal nuclear shape and size)
- **Increased cellularity**
- **Loss of normal tissue architecture**
- Often **poorly differentiated** or **undifferentiated**

□ In Neuro-oncology

In the context of brain tumors:

- **Anaplastic gliomas** are classified as **WHO Grade 3**
- They are **malignant and infiltrative**, but **do not** show necrosis or microvascular proliferation (hallmarks of Grade 4)
- Common anaplastic gliomas:
 - **Anaplastic astrocytoma**
 - **Anaplastic oligodendroglioma**

□ Summary

“Anaplastic” denotes **malignancy with loss of differentiation**, often used in the classification of **Grade 3 tumors** to indicate a more aggressive behavior than low-grade (Grade 1–2) tumors.

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