

CHAPTER 12 REGULATION OF CELL CYCLE

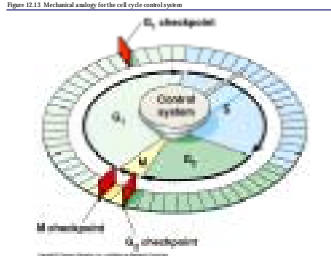
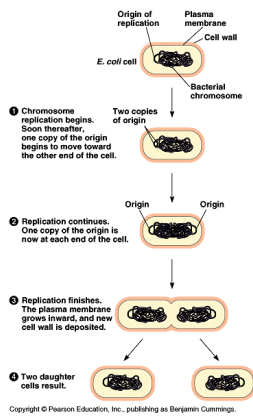


Figure 12.10 Bacterial cell division (binary fission) (Layer 3)



WHAT REGULATES THE CELL CYCLE?

- Molecular control system drives cycle.
- G1, G2, M are the check points.
- Cyclins and cyclin-dependent kinases (Cdk)
- MPF's (maturation promoting factor)
- Internal signals from the kinetochores
- external signals from PDGF factors.

Figure 12.15x Fibroblast growth

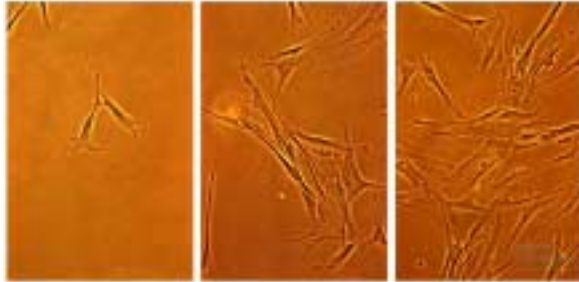


Figure 12.16 Density-dependent inhibition of cell division

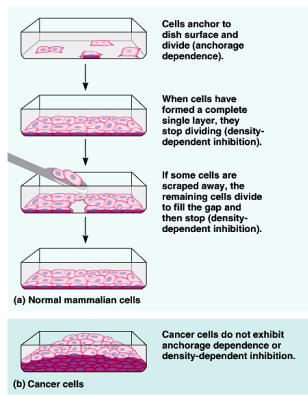


Figure 12.17 The growth and metastasis of a malignant breast tumor

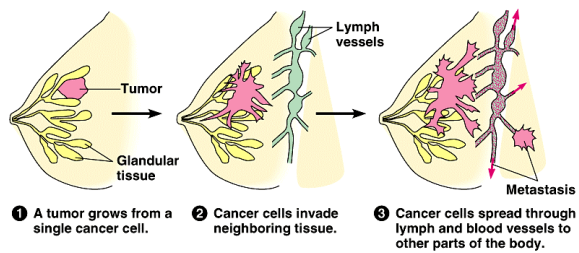


Figure 12-17x1 Breast cancer cell



Figure 12-17x2 Mammogram: normal (left) and cancerous (right)

