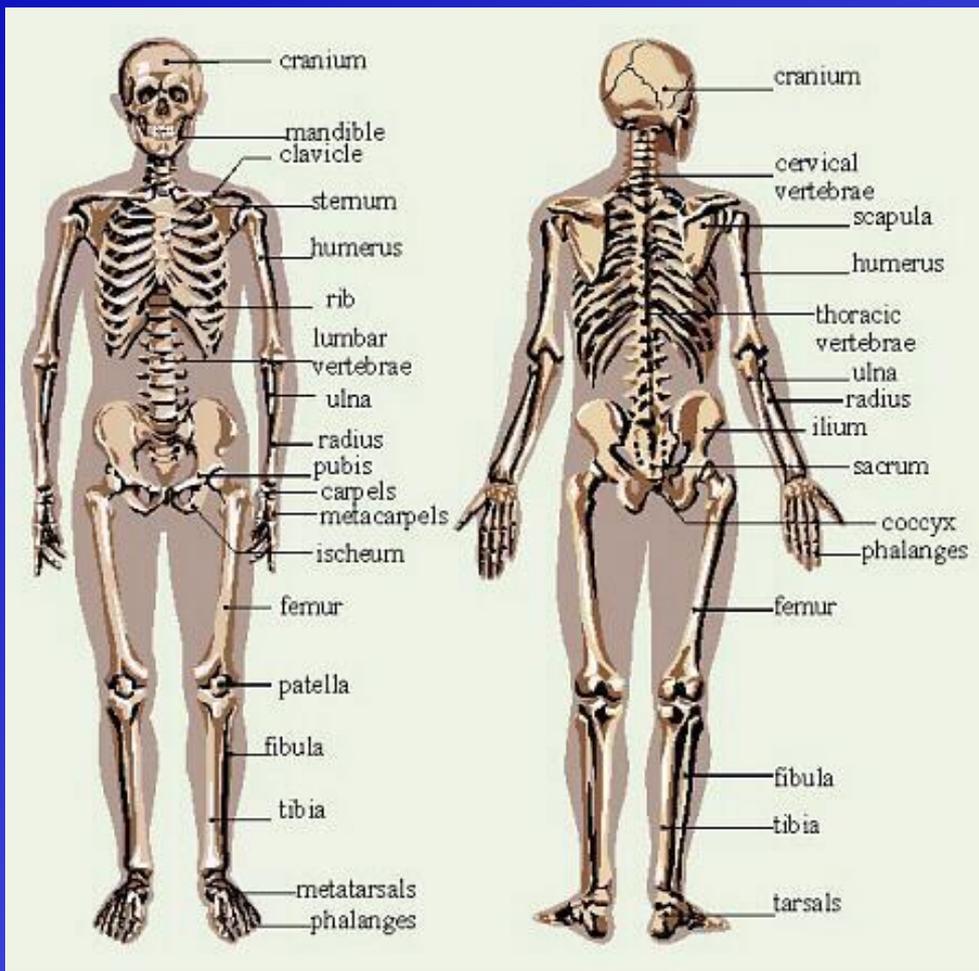


# 骨骼健康与保健

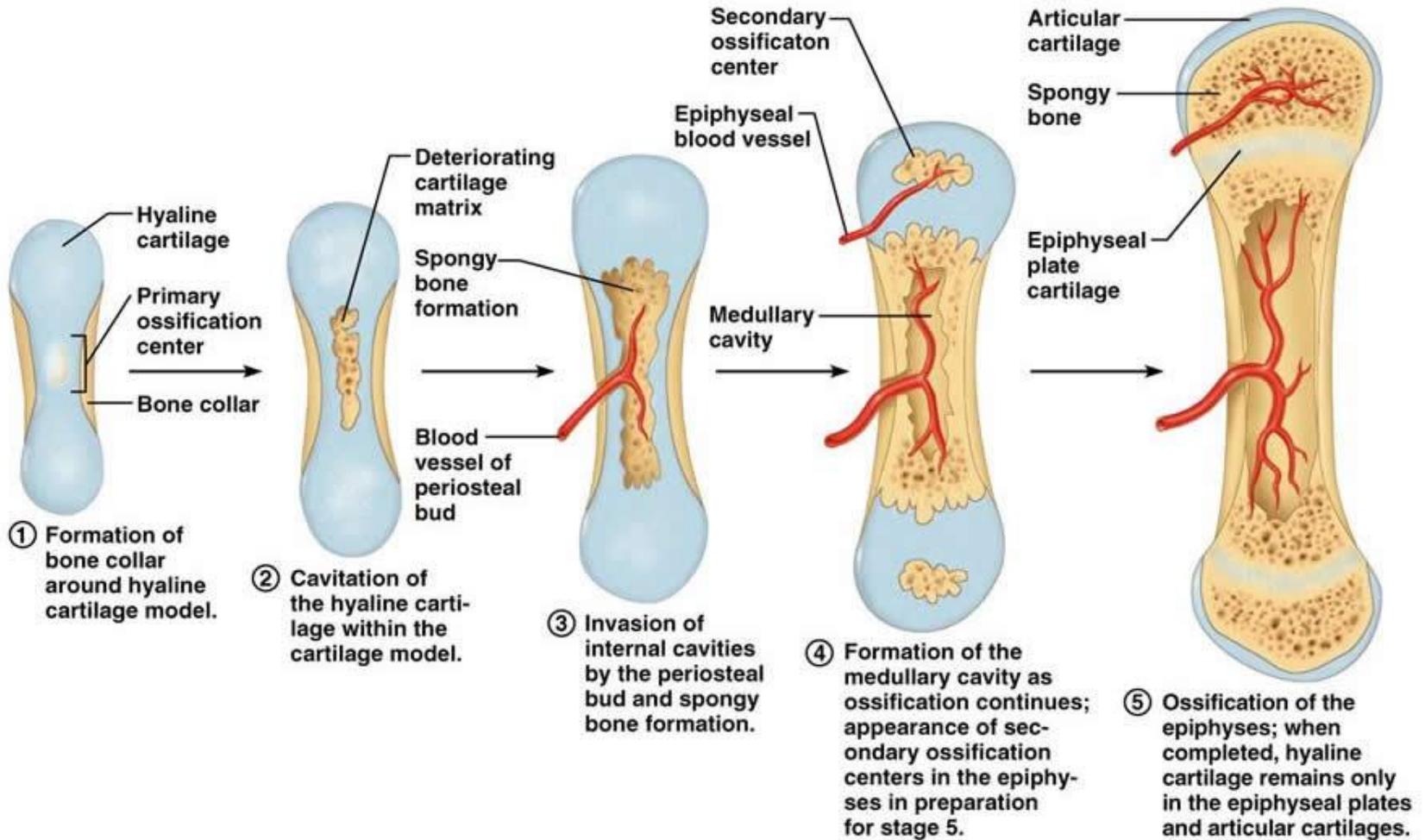
王卫光 (博士)  
骨科研究中心

# 骨骼的功能



- 支持
- 保护
- 干细胞仓库

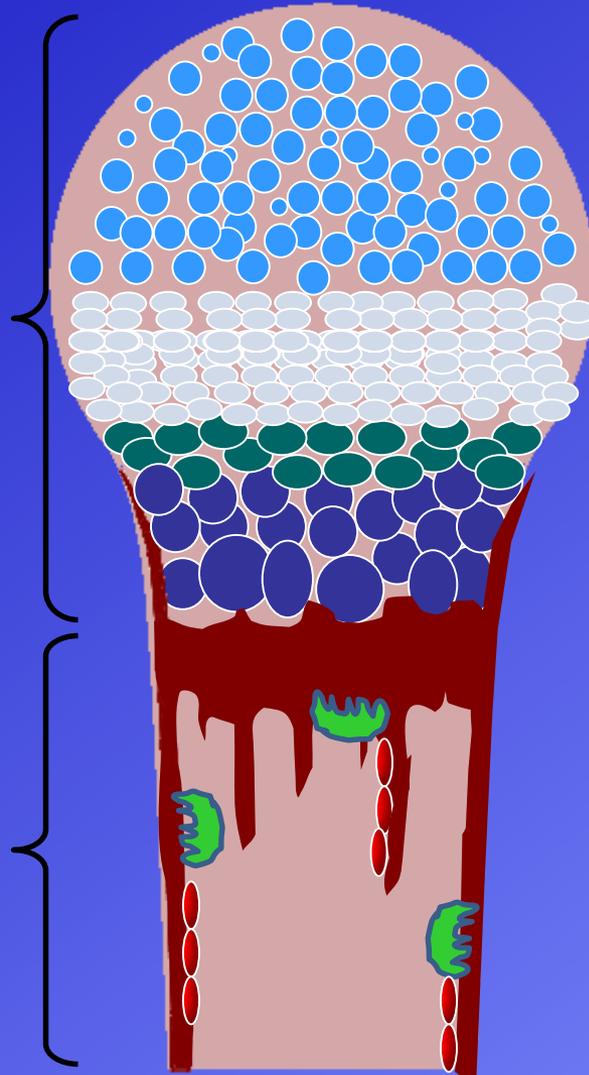
# 骨骼生长



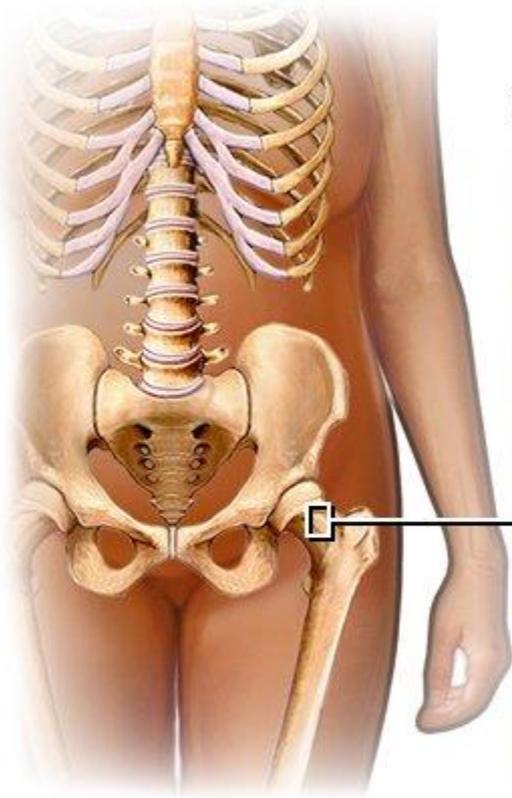
# 软骨和硬骨

软骨

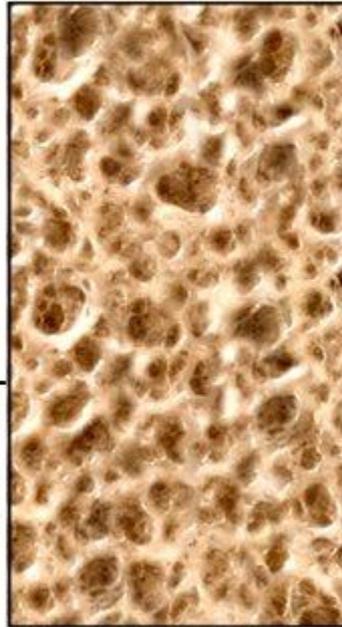
硬骨



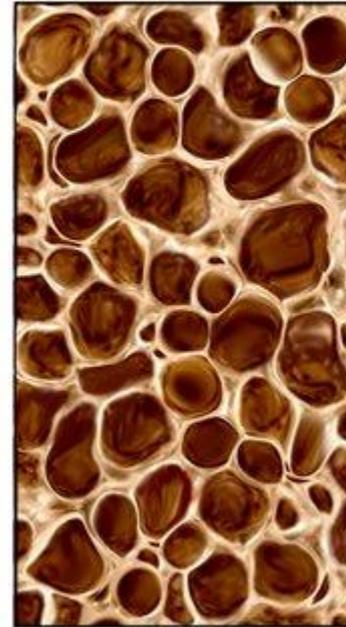
# 骨质疏松



Normal bone matrix



Osteoporosis



# 诱发骨质疏松的风险因子

- 性别
- 种族
- 低的体质量指数
- 缺乏锻炼
- 营养因素
- 低维他命D
- 长期使用类固醇类药物,
- 吸烟, 喝酒, 家族病史

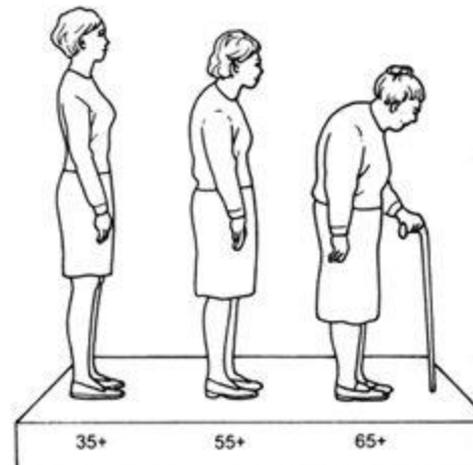
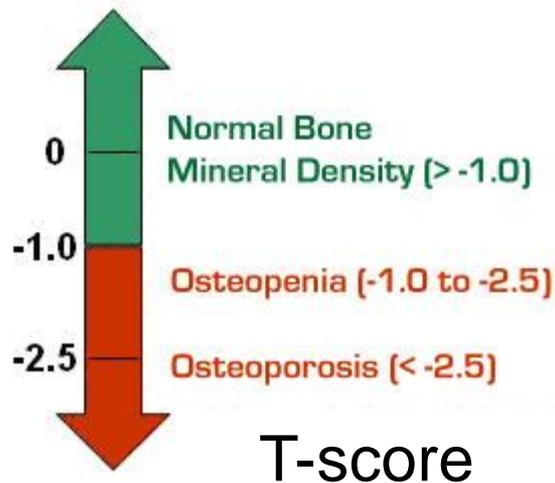
# 女性 男性

WOMEN

MEN

Average Age of Onset	65 years	75 years
Lifetime Incidence of Osteoporotic Fracture	25%	13%
Fraction of Hip Fractures Due to Osteoporosis	70%	30%
Criteria Used to Diagnose	$T \leq -2.5$ or Fragility Fracture	$T \leq -2.5$ or Fragility Fracture

Data from Burge et al., 2007



# 预防骨质疏松

- >65岁，骨密度测试
- 补钙
- 补维生素D
- 锻炼，适当的机械震动，练肌肉

# 关节炎



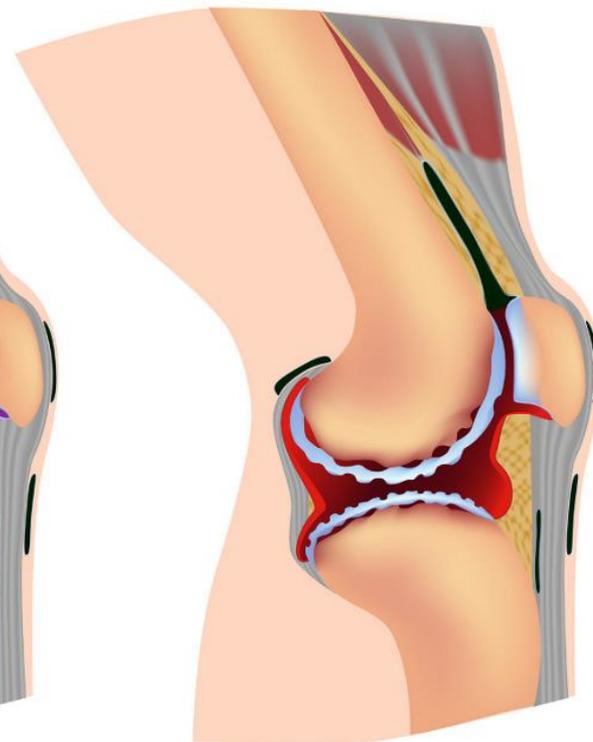
Healthy Joint

正常



Osteoarthritis

骨性关节炎



Rheumatoid Arthritis

风湿性  
关节炎

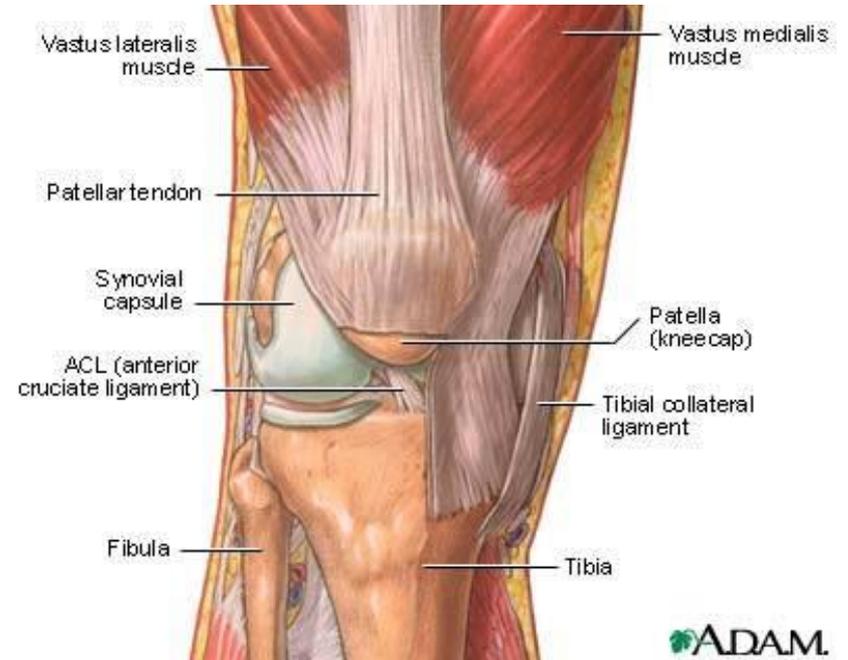
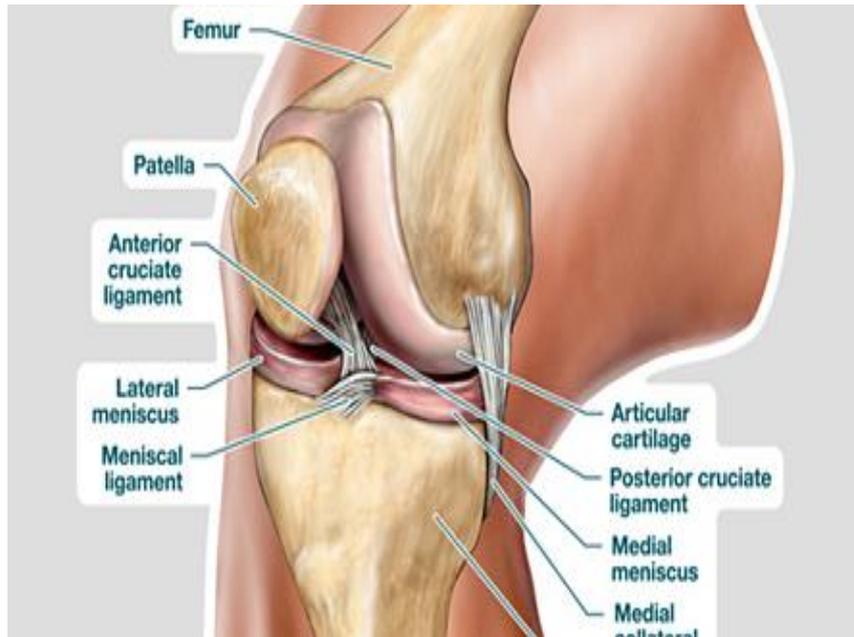
# 关节炎症状



# 诱发关节炎的风险因子

- 年龄 $\geq$ 50岁
- 肥胖(骨性关节炎)
- 女性
- 家族病史
- 长期不能运动
- 关节受伤
- 长期负重, 运动压力

# 关节韧带和肌肉



# 预防关节炎

- 合理运动(热身, 瑜伽, 太极, 游泳, 自行车, 走路, 肌肉锻炼)
- 保护关节(护膝, 护腕, 保暖)
- 按摩, 热敷
- 营养

抗氧化物: vitamin A, C, E, omega3

硒(三文鱼, 坚果)

软骨(动物), 胶原蛋白(猪蹄)

姜, 菠萝, 绿茶