## TRADITIONAL RISK FACTORS

Female gender

↑ Age

↓ Physical activity

↓ Bone acquisition

**Smoking** 

Alcohol

Opiates

Amenorrhoea

Premature menopause

Caucasian ethnicity

Family history

Previous fracture

Falls

## **SECONDARY RISK FACTORS**

**Comorbidities** (e.g. diabetes mellitus, hyperthyroidism, hyperparathyroidism, liver disease, rheumatological conditions, malabsorption etc.)

Medications (e.g. glucocorticoids, proton pump inhibitors)

Hypogonadism

Malnutrition/low BMI

Co-infection (e.g. hepatitis C)

Renal dysfunction

Vitamin D deficiency

## **BONE DISEASE**



Antiretroviral therapy

Viral factors (e.g. p55 gag, gp120)

Systemic inflammation (e.g. cytokines, TNFα, IL6)

Ageing and frailty