



FrieslandCampina 

Institute
for dairy nutrition and health

Bone health

Staying mobile throughout life



Bone health

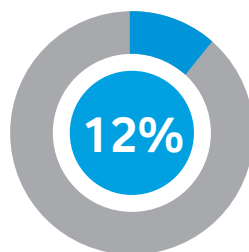
Reaching optimal peak bone mass when younger and slowing down bone mass loss as we age will help us to stay mobile throughout life

The world's population is ageing ⁽¹⁾

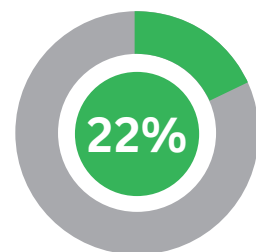


Around 12% of the world's population is >60 years old. By 2050, it will be 22% ⁽¹⁾

> 60 years



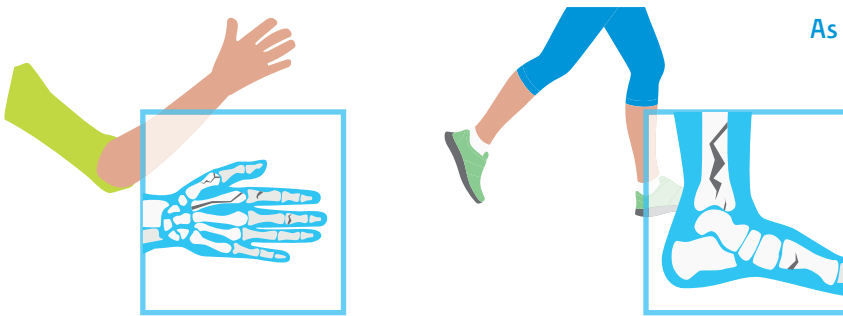
2017



2050

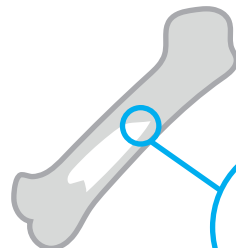


As we age, our bones become more brittle and weaker ⁽²⁾



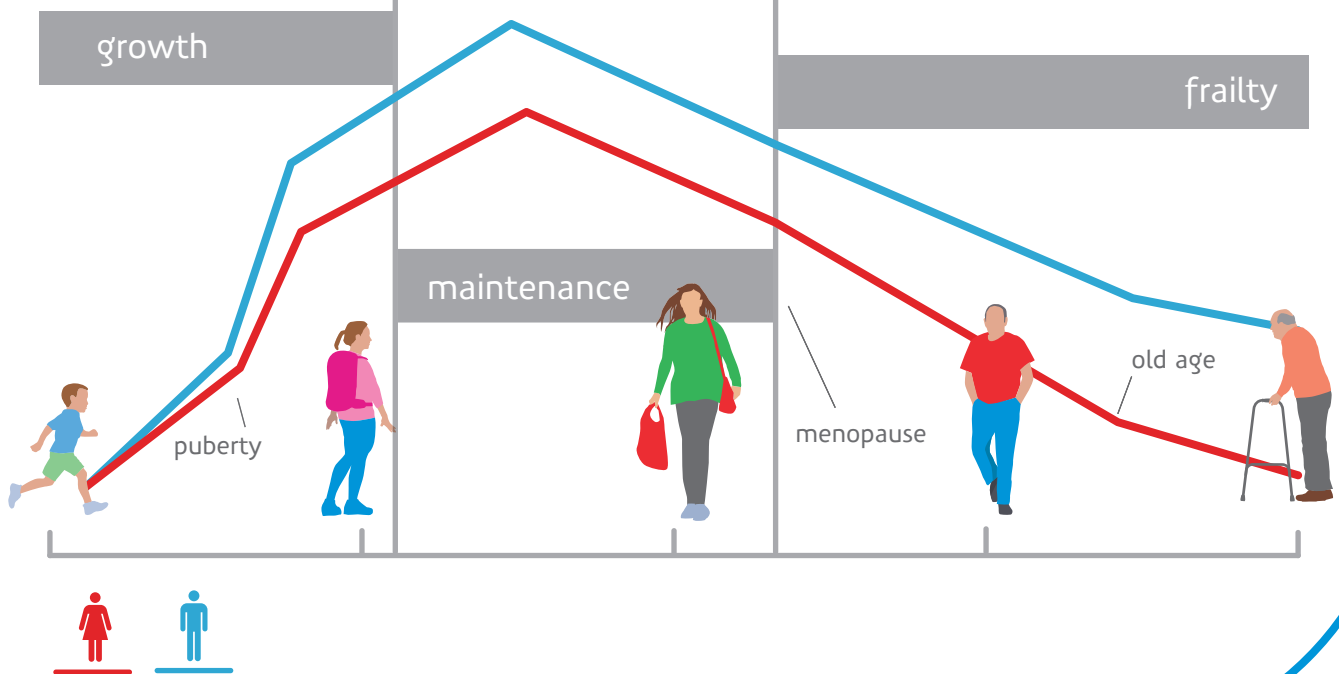
Bone is a living tissue. It is constantly broken down and built throughout life ^(2,3)

It takes 30 years to form the strongest bones. After 30, there is more bone resorption than formation, leading to a loss of bone mass ^(2,3)



- Collagen Fibers
- Blood Vessel
- Fibroblast
- Mesenchymal stem cells
- Osteoblast
- Osteocyte

Bone mass during life



60-80% of variation in peak bone mass is due to genetic factors. However, 20-40% are due to modifiable factors such as nutrition and physical activity ⁽⁴⁾

Physical exercise and a balanced diet that provides sufficient amounts of calcium, phosphorus, protein and vitamins K and D can support the maintenance of strong bones ⁽⁵⁻⁷⁾



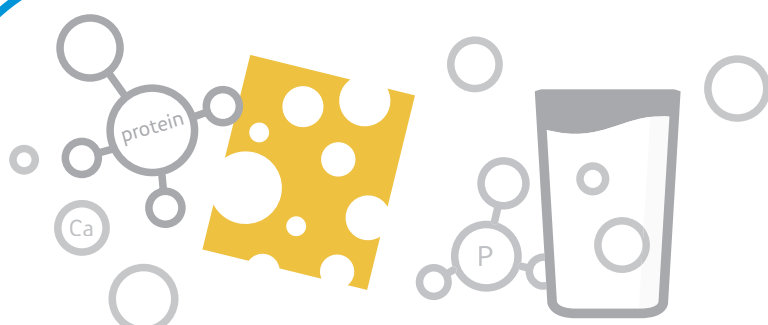
To maintain our mobility and bone health as we age, we must try to reach optimal peak bone mass when we are younger ⁽⁴⁾

A 10% increase in peak bone mass could translate into a 50% reduction in the risk of fracture ⁽⁴⁾



Milk naturally contains protein, calcium and phosphorus which contribute to the maintenance of normal bones ^(8,9)

Cheese is actually concentrated milk and is a natural source of protein, calcium, phosphorus, zinc and vitamin K



Stronger bones at young age supports healthy bones and mobility later in life ⁽³⁾



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