

# Impact of cannabis on bones changes with age, study finds

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Scientists investigating the effects of cannabis on bone health have found that its impact varies dramatically with age.

The study has found that although cannabis could reduce bone strength in young people, it may protect against [osteoporosis](#), a weakening of the bones, in later life.

The team at the University of Edinburgh has shown that a molecule found naturally in the body, which can be activated by cannabis - called the type 1 cannabinoid receptor (CB1) - is key to the development of osteoporosis.

It is known that when CB1 comes into contact with cannabis it has an impact on bone regeneration, but until now it was not clear whether the drug had a positive or negative effect.

Researchers, funded by the Arthritis Research Campaign, investigated this by studying mice that lacked the CB1 receptor. The scientists then used compounds - similar to those in cannabis - that activated the CB1 receptor. They found that compounds increased the rate at which [bone tissue](#) was destroyed in the young.

The study also showed, however, that the same compounds decreased bone loss in older mice and prevented the accumulation of fat in the bones, which is known to occur in humans with osteoporosis. The results are published in *Cell Metabolism*.

Osteoporosis affects up to 30 per cent of women and 12 per cent of men at some point in life.

Stuart Ralston, the [Arthritis](#) Research Campaign Professor of Rheumatology at the University of Edinburgh, who led the study, said: "This is an exciting step forward, but we must recognise that these are early results and more tests are needed on the effects of [cannabis](#) in humans to determine how the effects differ with age in people.

"We plan to conduct further trials soon and hope the results will help to deliver new treatments that will be of value in the fight against osteoporosis."

Source: University of Edinburgh

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