

How HIV affects bone health

Bones grow larger and stronger as children get older. They also become more full of minerals, which help keep bones strong. We wanted to see if HIV or HIV medications affect the amount of minerals in bones.

Why is bone mineral density important?

Looking at **bone mineral density** is a way to tell how strong bones are. Bones with high bone mineral density have more mineral in them. This means that they are stronger and less likely to break.

People who develop strong bones as children are less likely to have a broken bone when they are older.

Bones grow the most during puberty. HIV and HIV medications may affect the amount of mineral in bones.

We wanted to see if youth with HIV have lower bone mineral density than youth without HIV. This would tell us if their bones are as strong as they should be.

Who we studied

350 infected youth and 160 uninfected youth in AMP

What we did

We took x-rays of children in PHACS at their entry visit. We used a special kind of x-ray to look at all of the bones in their bodies. We measured their bone mineral density using these x-rays. We compared the youth with HIV to the youth without HIV.

What we found

The youth with HIV had lower bone mineral density for their age than the youth without HIV.

However, youth with HIV in the study were also shorter and weighed less for their age than the youth without HIV. This means that even though their bone mineral density seemed low, it was actually normal for their body size.

What we learned

Youth with HIV may have normal amounts of bone mineral for their body size.

We will follow the youth in AMP over time. This will help us learn more about how much bone mineral they develop. We will also be able to see how many have a broken bone at some point.

We will look at their bone mineral density over time to understand more about how HIV affects bone health.



For more info, contact:

Claire Berman
Director, Health Education &
Communication
617-432-1853
cberman@sdac.harvard.edu