

# Heart Health in Youth with HIV

HIV medication called HAART has made youth with HIV healthier in many ways. However, we don't know all of the ways that HAART can affect the body. We wanted to see if HAART has an effect on heart health in youth with HIV.

## Why is cardiac health important?

The **cardiac system** includes the heart, blood, and blood vessels. Blood vessels are like tubes that move blood around the body.

When the cardiac system isn't healthy, it can lead to problems like heart failure. This means that the body can't get enough blood and oxygen to work properly.

Many youth with HIV used to have these kinds of heart problems in the 1990s. This was when HAART was very new and not used often.

HIV and HIV medications like HAART can change the way the heart works. We wanted to see how HAART affects the heart health of youth with HIV.

## Who we studied

- 325 HIV+ youth in AMP (who took HAART)
- 70 HIV+ youth from the P2C2 Study done in the 1990s (most of whom did not take HAART)

## What we did

We used a test called an **echocardiogram** to check the hearts of both groups of youth with HIV. This test shows a moving picture of the heart beating.

## What we found

When we compared the two groups of youth, the AMP HIV+ youth:

- had fewer symptoms of HIV
- were on ARV treatment longer
- had hearts that pumped blood better

Some youth had more symptoms of HIV disease. This seemed to mean that their hearts did not pump blood as well as they did in healthier HIV+ youth. HIV symptoms seemed to have a bigger impact on heart health for the youth who didn't take HAART.

## What we learned

When symptoms of HIV disease are worse, the heart doesn't seem to pump blood as well as it should. Youth whose HIV is under better control seem to have healthier hearts.

Children and teenagers who have taken HAART for many years appear to have healthy hearts.

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