

TENOFOVIR USE DURING PREGNANCY AND BONE MINERAL CONTENT IN BABIES

Many women with HIV take the antiretroviral drug tenofovir during pregnancy. Tenofovir can keep women healthy and prevent HIV infection in their babies, when taken with other HIV medications. But some studies suggest that tenofovir may lower bone mineral content, which is thought to determine bone strength. We wanted to see if the bone mineral content of babies whose mothers took tenofovir during pregnancy was low compared to other babies.

WHO PARTICIPATED

143 babies from  the SMARTT study

There were two groups: 74 babies whose mothers took tenofovir during pregnancy, and 69 babies whose mothers did not take tenofovir during pregnancy.

WHAT WE DID

The babies were from



14 clinical sites around the country

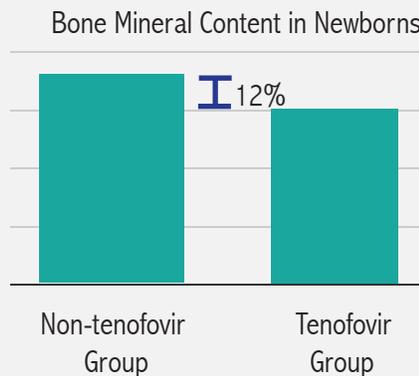
We used a special scanner called a DXA scanner to measure each baby's bone mineral content. Then we compared the average between the two groups. We also looked at other factors that can affect bone mineral content, such as:



DID YOU KNOW?
Tenofovir is a drug found in medicines such as Viread, Truvada, Atripla, Complera, and Stribild.

- being born early,
- being born small, or
- smoking during pregnancy.

WHAT WE FOUND



The average bone mineral content of the babies in the tenofovir group was 12% lower than the average for the babies whose mothers did not take tenofovir.

The average in the tenofovir group was lower even after we accounted for the effect of other factors that can affect bone mineral content.

WHAT WE LEARNED



We will check on the babies' bone mineral content again when they are 3 or 4 years old. For now, these babies do not need to take extra vitamins for their bones.

Babies may have less mineral in their bones if their mothers took tenofovir during pregnancy. However, we don't know if the tenofovir is the reason for the lower bone mineral, or if this lower amount will cause bone weakness. We haven't seen any broken bones, and babies' bones might get stronger as they grow up. More research on this topic is needed.