

Integrase Inhibitors May Be Tied to Weight Gain

More high-quality evidence is needed to determine how this class of HIV medications may affect weight gain.

January 28, 2019 By [Benjamin Ryan](#)

The integrase inhibitor class of antiretroviral (ARV) medications may be associated with weight gain, [aidsmap](#) reports. A review of observational studies and clinical trials found the risk to be pronounced among women and Black people.

Publishing their findings in the *Journal of Virus Education*, researchers looked for studies that could provide information about weight changes after starting one of the four approved integrase inhibitors: Isentress (raltegravir); Tivicay (dolutegravir), which is included in Triumeq (dolutegravir/abacavir/lamivudine) and Juluca (dolutegravir/rilpivirine); Vitekta (elvitegravir), which is included in Stribild (elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate) and Odefsey (emtricitabine/rilpivirine/tenofovir alafenamide); and bictegravir, which is not approved as a stand-alone pill and is included in Biktarvy (bictegravir/emtricitabine/tenofovir alafenamide).

The study authors reviewed a handful of randomized clinical trials—in which differences in ARV regimens were the result of randomization—including:

- The ACTG 5257 study, in which those who received Isentress, in particular Black participants, were more likely to become overweight or obese compared with those who received boosted Prezista (darunavir) or Reyataz (atazanavir). All participants took Truvada (tenofovir disoproxil fumarate/emtricitabine) as a backbone to their ARV regimen.
- The NEAT-001 study, in which all participants took Isentress and those who took it with boosted Prezista developed higher trunk fat levels after 96 weeks compared with those who took Isentress plus Truvada.
- The SPRING-1 study, in which weight gain was greater among those who took Tivicay compared with those who took Sustiva (efavirenz).

- The Gilead 1490 study, in which participants took either Tivicay or bictegravir. Both groups gained 3 kilograms (6.61 pounds) over 96 weeks. All study members took Descovy (emtricitabine/tenofovir alafenamide) as a backbone.

Some research [has suggested](#) that the tenofovir alafenamide component of Descovy is associated with weight gain compared with the older version of tenofovir, the tenofovir disoproxil fumarate component of Truvada.

As for observational studies, which are a less robust source of scientific evidence than randomized trials, findings included:

- Tivicay plus Ziagen (abacavir) was associated with greater weight gain than Tivicay plus Viread (tenofovir disoproxil fumarate). It is not clear whether this indicates that Viread moderates any weight gain linked to integrase inhibitors.
- Several observational cohort studies saw greater weight gain in those starting or switching to an integrase inhibitor, particularly women.

More research is needed to determine whether integrase inhibitors are associated with weight gain and whether any such gain in body fat is associated with various negative health outcomes. Obesity is associated with diabetes, cardiovascular disease (CVD) and cancer in particular, all of which occur at higher rates among people with HIV compared with the general population.

To read the aidsmap article, [click here](#).

To read the study abstract, [click here](#).