



DRUG NAMES AND MANUFACTURERS

None of these drugs can kill the HIV virus, but each class slows down the multiplication of the virus (replication) in a particular way.

Combination medications: Some manufacturers have combined more than one drug into a single tablet or capsule. Combinations within a single class are listed below. Combinations of more than one type of drug are discussed in Fact Sheet 409.

1. Reverse transcriptase inhibitors (“Nukes”): The first anti-HIV drugs. They block reverse transcription (the creation of viral DNA from RNA) by providing “decoy” building blocks that interrupt the process. Most are nucleoside analogs; tenofovir is a nucleotide analog.

| Year approved* | Generic Name | Trade Name | Also known as: | Manufacturer |
|----------------|--|------------|-----------------------------|--------------------------------|
| 1987 | Zidovudine | Retrovir | AZT, ZDV | GlaxoSmithKline & generic |
| 1991 | Didanosine | Videx | ddl | Bristol-Myers Squibb & generic |
| 1992 | Zalcitabine, Hivid (ddC, dideoxycytidine) by Roche: Manufacture discontinued in 2006 | | | |
| 1994 | Stavudine | Zerit | d4T | Bristol-Myers Squibb & generic |
| 1995 | Lamivudine | Epivir | 3TC | GlaxoSmithKline & generic |
| 1997 | Zidovudine/Lamivudine | Combivir | Combines AZT & 3TC | GlaxoSmithKline & generic |
| 1998 | Abacavir | Ziagen | ABC | GlaxoSmithKline & generic |
| 2000 | Zidovudine/Lamivudine/Abacavir | Trizivir | Combines AZT, 3TC, Abacavir | GlaxoSmithKline |
| 2001 | Tenofovir | Viread | TDF | Gilead Sciences & generic |
| 2003 | Emtricitabine | Emtriva | FTC | Gilead Sciences & generic |
| 2004 | Abacavir/Lamivudine | Epzicom | Combines Ziagen and 3TC | GlaxoSmithKline & generic |
| 2004 | Emtricitabine/Tenofovir | Truvada | Combines Emtriva and Viread | Gilead Sciences & generic |

Fact Sheet 410 has information on other nukes in human trials.

2. Non-nucleoside reverse transcriptase inhibitors: these also interrupt reverse transcription, by binding to the reverse transcriptase enzyme and restricting its activity.

| | | | | |
|------|-------------|------------|-----|--------------------------------|
| 1996 | Nevirapine | Viramune | NVP | Boehringer Ingelheim & generic |
| 1997 | Delavirdine | Rescriptor | DLV | Pfizer/Agouron |
| 1998 | Efavirenz | Sustiva | EFV | Bristol-Myers Squibb & generic |
| 2008 | Etravirine | Intelence | ETR | Tibotec |

Fact Sheet 430 has information on other non-nucleoside reverse transcription inhibitors in human trials

3. Protease inhibitors: Block the action of protease, an enzyme that cuts HIV protein chains into specific proteins needed to assemble a new copy of the virus. NOTE: when you see “/r” after the name of a protease inhibitor, that means it is boosted with a small dose of ritonavir. For example, SQV/r means saquinavir boosted with ritonavir. At present, only lopinavir and ritonavir are available in a single pill.

| | | | | |
|------|---------------------|---|-----|----------------------|
| 1995 | Saquinavir | Invirase | SQV | Roche |
| 1996 | Ritonavir | Norvir | RTV | Abbott |
| 1996 | Indinavir | Crixivan | IDV | Merck |
| 1997 | Nelfinavir | Viracept | NFV | Pfizer/Agouron |
| 1997 | Saquinavir | Fortovase Manufacture discontinued in 2006; Roche | | |
| 1999 | Amprenavir | Agenerase Manufacture discontinued in 2007 | | GlaxoSmithKline |
| 2000 | Lopinavir/ritonavir | Kaletra, Aluvia | LPV | Abbott & generic |
| 2003 | Atazanavir | Reyataz | ATV | Bristol-Myers Squibb |
| 2003 | Fosamprenavir | Lexiva | FPV | GlaxoSmithKline |
| 2005 | Tipranavir | Aptivus | TPV | Boehringer Ingelheim |
| 2006 | Darunavir | Prezista | DRV | Tibotec |

Fact Sheet 440 has information on other protease inhibitors in human trials.

4. Integrase inhibitors: Block the action of integrase, an enzyme that inserts the viral DNA into the infected cell’s DNA strands.

| | | | | |
|------|-------------|-----------|-----|-------|
| 2007 | Raltegravir | Isentress | RGV | Merck |
|------|-------------|-----------|-----|-------|

Fact Sheet 470 has information on other integrase inhibitors in human trials

5. Attachment and Fusion inhibitors: Prevent HIV from attaching to a cell.

| | | | | |
|------|-------------|---------------------|------|----------------|
| 2003 | Enfuvirtide | Fuzeon | T-20 | Trimeris/Roche |
| 2007 | Maraviroc | Selzentry, Celsenti | MVC | Pfizer |

Fact sheet 460 has information on other fusion and attachment inhibitors in human trials.

6. Antisense drugs: These are a “mirror image” of part of the HIV genetic code that locks onto the virus to prevent it from functioning.

Fact sheet 470 has information on antisense drugs in development.

7. Immune Modulators: Use the body’s chemical messengers to stimulate the immune response. Over a dozen immune modulators are being studied in humans. See Fact Sheet 480 for more information.

*Year of approval in the USA. Many generic versions have been approved under the President's Emergency Plan for AIDS Relief. See <http://www.fda.gov/oia/pepfar.htm> for more information.

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