# Influenza (Flu) Antiviral Drugs and Related Information

Get information on medicines for the flu

Note: Information provided may change and should not be used as a substitute for individual evaluation by a health care provider, or as the primary means of diagnosing influenza or determining treatment.

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#### Introduction

The term influenza refers to illness caused by influenza virus. This is commonly called the flu, but many different illnesses cause flu-like symptoms such as fever, chills, aches and pains, cough, and sore throat. Influenza virus infection can cause different illness patterns, ranging from mild common cold symptoms to typical flu. Some people may be at increased risk for bacterial complications of influenza such as pneumonia, ear or sinus infections, or bloodstream infections.

There are a number of drugs approved by the FDA for the treatment and prevention of influenza. Yearly vaccination is the primary means of preventing and controlling influenza.

Antibiotics are used to treat illnesses caused by bacteria like strep throat, tuberculosis and many types of pneumonia. Antibiotics do not treat viral illnesses like flu, colds, and most sore throats.

### Influenza and COVID-19

The worldwide pandemic of the disease called COVID-19 has changed the way people look at "flu-like" symptoms. COVID-19 is caused by a different virus, not an influenza virus but a coronavirus, called SARS-CoV-2. COVID-19 and influenza illnesses can have many of the same symptoms but may cause different risks of complications in some different risk groups and may need different testing, treatment, and preventive measures. These similarities and differences may be important considerations for healthcare providers and people who believe they may have been exposed or may have either of these illnesses. CDC has posted some comparisons (https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm) between these two illnesses; information is accumulating and changing rapidly. The possible effect of COVID-19 exposure-avoidance measures on circulation of influenza is not fully understood. Currently approved influenza antivirals are not expected to provide benefit against COVID-19.

#### **FDA Information on Seasonal Influenza**

Visit Seasonal Flu (Influenza) and the FDA (/news-events/public-health-focus/seasonal-flu-influenza-and-fda)

#### **Use of Antiviral Medications to Treat Influenza**

Outbreaks of influenza occur every year and typically reach epidemic levels at some part of the season. Usually, uncomplicated influenza gets better with or without antiviral treatment but may cause substantial discomfort and limit activities while it lasts.

Many people with uncomplicated influenza use over-the-counter medicines, get rest, and take plenty of fluids to lessen their symptoms. Antiviral drugs available by prescription can reduce the time it takes for symptoms to improve, and some are also used in selected situations to reduce the chance of illness in people exposed to influenza virus. Prompt medical evaluation is important for early treatment of influenza as the antiviral drugs may provide the most benefit for patients who initiate therapy within 48 hours of symptom onset.

Symptoms of influenza may mimic other infections which require different treatment (such as bacterial pneumonia which should be treated with antibiotics). It is important to be evaluated by a healthcare provider, if symptoms are severe or worsening or if there is an underlying chronic medical condition. Laboratory tests can help detect influenza virus. However, a negative test does not always rule out the possibility of an influenza virus infection, and positive tests do not exclude the possibility of other illnesses or take the place of clinical evaluation.

Complications of influenza can include bacterial infections, viral pneumonia, and cardiac and other organ system abnormalities. People with chronic medical conditions (including obesity), children younger than 5 years old (and especially children less than 2 years old), patients 65

years and older, residents of long-term care facilities, Native Americans and Alaska Natives and pregnant women may be at increased risk for complications. Complications of influenza, and other illnesses that resemble influenza, may require different treatment and, in some cases, urgent medical attention. Antiviral drugs do not eliminate the risk of complications. Some complications can be life-threatening. There have been reports of people with other types of infections that got worse because they were treated only for influenza and not for the other infections.

Influenza viruses can become resistant to specific anti-influenza antiviral drugs, and all of these drugs have side effects. If you experience new symptoms during treatment or your symptoms persist or get worse during treatment, see your health care professional.

For more information and public health recommendations about circulating influenza virus, including resistance patterns for specific drugs, go to Flu.gov (http://www.flu.gov/) or to the CDC (http://www.cdc.gov/) and WHO (http://www.who.int/) (http://www.fda.gov/about-fda/website-policies/website-disclaimer) websites.

## **FDA Approved Drugs for Influenza**

Note: Influenza antiviral drugs are not a substitute for vaccine. They are used in addition to vaccine in public health planning for the control of influenza. The antiviral drugs have been approved for treatment of acute uncomplicated influenza and for some preventive uses.

There are four FDA-approved influenza antiviral drugs recommended by CDC for use against recently circulating influenza viruses.

- Rapivab (peramivir) (/drugs/information-drug-class/rapivab-peramivir-information)
- Relenza (zanamivir) (/drugs/postmarket-drug-safety-information-patients-and-providers/relenza-zanamivir-information)
- Tamiflu (oseltamivir phosphate, also available as generic) (/drugs/postmarket-drug-safety-information-patients-and-providers/tamiflu-oseltamivir-phosphate-information)
- Xofluza (baloxavir marboxil) (/drugs/drug-approvals-and-databases/drug-trial-snapshotxofluza)

Two older drugs, amantadine (generic) and rimantadine (Flumadine and generic) historically have been approved for treatment and prevention of influenza A virus infection. But many strains of influenza virus, including the 2009 H1N1 influenza virus, are now resistant to these drugs. CDC has not recommended the use of amantadine and rimantadine for recently circulating influenza viruses, although recommendations could change if there were future remergence of specific virus strains with susceptibility patterns favoring such use.

## Use of Investigational Drugs for Influenza

Clinical trials evaluate the safety and efficacy of unapproved products or new uses for approved products. Information about open clinical trials can be found at ClinicalTrials.gov (http://www.clinicaltrials.gov).

## **Resources for Drug Product Information**

Information about expanded access regulations, other aspects of drug development and review, and resources about the approval status of drugs and formulations can be found at:

- Electronic Orange Book (/drugs/drug-approvals-and-databases/approved-drug-products-therapeutic-equivalence-evaluations-orange-book): This resource can be searched for holders of approved or discontinued marketing applications, especially for drugs that may have more than one source of generic preparations.
- Drugs@FDA (http://www.accessdata.fda.gov/scripts/cder/daf/index.cfm): This resource can be searched for approval history and labeling information for approved drugs.
- ClinicalTrials.gov (http://www.clinicaltrials.gov): This website is maintained by the
  National Institutes of Health (NIH) as a resource for locating information about clinical
  trials. Posting a trial on this website does not constitute government endorsement of the
  trial or the product under study.
- Final Rule, Expanded Access to Investigational Drugs for Treatment Use (PDF 217KB) (http://edocket.access.gpo.gov/2009/pdf/E9-19005.pdf)
- Emergency Investigational New Drug (EIND) Applications for Antiviral Products (/drugs/investigational-new-drug-ind-application/emergency-investigational-new-drug-eind-applications-antiviral-products)
- Emerging Viral Infections Information on approaches to drug development for antiviral drugs (https://wayback.archive-it.org/7993/20170723110253/https://www.fda.gov/Drugs/DevelopmentApprovalProcess/Editors/www.fda.gov/about-fda/website-policies/website-disclaimer)
- Pre-IND Consultation Program: (/drugs/investigational-new-drug-ind-application/pre-ind-consultation-program) Information for product sponsors on initiation of interactions to obtain FDA advice prior to an Investigational New Drug submission
- Guidance for Industry Influenza: Developing Drugs for Treatment and/or Prophylaxis (PDF - 417KB) (/media/73339/download)

### **Drug Shortage Reports**

• When drug shortages occur, check the FDA Drug Shortages (/drugs/drug-safety-and-availability/drug-shortages) web page for updated information

## Contacts for information on drugs used to treat influenza

For information on drugs used to treat influenza, contact

Food and Drug Administration

Center for Drug Evaluation and Research

Office of Communications

**Division of Drug Information** 

Phone: 888-info-FDA 9 | 301-827-4573 9

Fax: 301-827-4577

Email: druginfo@fda.hhs.gov (mailto:druginfo@fda.hhs.gov)

For information on influenza prevention and control, contact

Centers for Disease Control and Prevention

Phone: 800-CDC-INFO (800-232-4636 (9) | TTY: (888) 232-6348 (9)

Email: cdcinfo@cdc.gov (mailto:cdcinfo@cdc.gov)

Fax: 770-488-4995

Email: inquiry@cdc.gov (mailto:inquiries@cdc.gov)

## **Additional Resources**

- FDA: 2019-2020 Influenza Season: Availability of Antiviral Medications (Updated 3/2/2020) (/media/120654/download)
- FDA: Seasonal Flu (Influenza) and the FDA (/news-events/public-health-focus/seasonal-flu-influenza-and-fda)
- FDA: Get Set for Winter Illness Season (/consumers/consumer-updates/it-cold-or-flu-prevention-symptoms-treatments)
- CDC: Influenza (Flu) (http://www.cdc.gov/flu/)