

Package leaflet: Information for the user

Fluconazole 2 mg/ml solution for infusion
fluconazole

Read all of this leaflet carefully before you start using this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effect not listed in this leaflet. See section 4.

What is in this leaflet:

1. What Fluconazole is and what it is used for
2. What you need to know before you are given Fluconazole
3. How Fluconazole is given
4. Possible side effects
5. How to store Fluconazole
6. Contents of the pack and other information

1. What Fluconazole is and what it is used for

Fluconazole is one of a group of medicines called ‘antifungals’. The active substance is fluconazole.

Fluconazole is used to treat infections caused by fungi and may also be used to stop you from getting candidal infection. The most common cause of fungal infections is a yeast called *Candida*.

Adults

You might be given this medicine by your doctor to treat the following types of fungal infections:

- Cryptococcal meningitis - a fungal infection in the brain
- Coccidioidomycosis – a disease of the bronchopulmonary system
- Infections caused by *Candida* and found in the blood stream, body organs (e.g. heart, lungs) or urinary tract
- Mucosal thrush – infection affecting the lining of the mouth, throat and denture sore mouth

You might also be given Fluconazole to:

- stop cryptococcal meningitis from coming back
- stop mucosal thrush from coming back
- stop you from getting an infection caused by *Candida* (if your immune system is weak and not working properly)

Children and adolescents (0 to 17 years old)

You might be given this medicine by your doctor to treat the following types of fungal infections:

- Mucosal thrush – infection affecting the lining of the mouth, throat
- Infections caused by *Candida* and found in the blood stream, body organs (e.g. heart, lungs) or urinary tract
- Cryptococcal meningitis – a fungal infection in the brain

You might also be given Fluconazole to:

- stop you from getting an infection caused by *Candida* (if your immune system is weak and not working properly)
- stop cryptococcal meningitis from coming back

2. What you need to know before you are given Fluconazole

Do not use Fluconazole if you

- are allergic to fluconazole, to other medicines you have taken to treat fungal infections or to any of the other ingredients of this medicine (listed in section 6). The symptoms may include itching, reddening of the skin or difficulty in breathing
- are taking astemizole, terfenadine (antihistamine medicines for allergies)
- are taking cisapride (used for stomach upsets),
- are taking pimozide (used for treating mental illness)
- are taking quinidine (used for treating heart arrhythmia)
- are taking erythromycin (an antibiotic for treating infections)

Warnings and precautions

Talk to your doctor before you are given Fluconazole

- if you have liver or kidney problems
- if you suffer from heart disease, including heart rhythm problems
- if you have abnormal levels of potassium, calcium or magnesium in your blood
- if you develop severe skin reactions (itching, reddening of the skin or difficulty in breathing).
- If you develop signs of ‘adrenal insufficiency’ where the adrenal glands do not produce adequate amounts of certain steroid hormones such as cortisol (chronic, or long lasting fatigue, muscle weakness, loss of appetite, weight loss, abdominal pain).
- if you have ever developed a severe skin rash or skin peeling, blistering and/or mouth sores after using Fluconazole
- if the fungal infection does not improve, as alternative antifungal therapy may be needed.

Serious skin reactions including drug reaction with eosinophilia and systemic symptoms (DRESS) have been reported in association with Fluconazole treatment. Stop using Fluconazole and seek medical attention immediately if you notice any of the symptoms related to these serious skin reactions described in section 4.

Other medicines and Fluconazole

Tell your doctor if you are taking, have recently taken or might take any other medicines.

Tell your doctor *immediately* if you are taking astemizole, terfenadine (an antihistamine for treating allergies) or cisapride (used for stomach upsets) or pimozide (used for treating mental illness) or quinidine (used for treating heart arrhythmia) or erythromycin (an antibiotic for treating infections) as these should not be taken with Fluconazole (see section: ‘Do not take Fluconazole’).

There are some medicines that may interact with Fluconazole. Make sure your doctor knows if you are taking any of the following medicines:

- rifampicin, rifabutin or azithromycin (antibiotics for infections)
- abrocitinib (used to treat atopic dermatitis, also known as atopic eczema)
- alfentanil, fentanyl (used as anaesthetic)
- amiodarone (used for treating uneven heartbeats ‘arrhythmias’)
- amitriptyline, nortriptyline (used as anti-depressant)
- amphotericin B, voriconazole (anti-fungal)
- medicines that thin the blood to prevent blood clots (warfarin or similar medicines)
- benzodiazepines (midazolam, triazolam or similar medicines) used to help you sleep or for anxiety
- carbamazepine, phenytoin (used for treating fits)
- nifedipine, isradipine, amlodipine, felodipine, verapamil, hydrochlorothiazide (a diuretic) and losartan (for hypertension- high blood pressure)
- olaparib (used for treating ovarian cancer)
- ciclosporin, everolimus, sirolimus or tacrolimus (to prevent transplant rejection)

- cyclophosphamide, vinca alkaloids (vincristine, vinblastine or similar medicines) used for treating cancer
- halofantrine (used for treating malaria)
- statins (atorvastatin, simvastatin, fluvastatin or similar medicines) used for reducing high cholesterol levels
- methadone (used for pain)
- celecoxib, flurbiprofen, naproxen, ibuprofen, lornoxicam, meloxicam, diclofenac (Non-Steroidal Anti-Inflammatory Drugs (NSAID))
- oral contraceptives
- prednisone (steroid)
- zidovudine, also known as AZT; saquinavir (used in HIV-infected patients)
- medicines for diabetes such as chlorpropamide, glibenclamide, glipizide or tolbutamide
- theophylline (used to control asthma)
- tofacitinib (used for treating rheumatoid arthritis)
- tolvaptan used to treat hyponatremia (low levels of sodium in your blood) or to slow kidney function decline
- vitamin A (nutritional supplement)
- ivacaftor (alone or combined with other drugs used for treating cystic fibrosis)
- ibrutinib (used for treating blood cancer)
- lurasidone (used to treat schizophrenia)

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before you are given this medicine.

If you are planning to become pregnant, it is recommended to wait a week after a single dose of fluconazole before becoming pregnant.

For longer courses of treatment with fluconazole, talk to your doctor on the need for appropriate contraception during treatment which should continue for one week after the last dose.

You should not take Fluconazole if you are pregnant, think you may be pregnant, are trying to become pregnant or breast-feeding, unless your doctor has told you so. If you become pregnant while taking this medicine or within 1 week of the most recent dose, contact your doctor.

Fluconazole taken during the first or second trimester of pregnancy may increase the risk of miscarriage.

Fluconazole taken during the first trimester may increase the risk of a baby being born with birth defects affecting the heart, bones and/or muscles.

There have been reports of babies born with birth defects affecting the skull, ears, and bones of the thigh and elbow in women treated for three months or more with high doses (400 – 800 mg daily) of fluconazole for coccidioidomycosis. The link between fluconazole and these cases is not clear.

You can continue breast-feeding after taking a single dose of 150 mg fluconazole.

You should not breast-feed if you are taking a repeated dose of fluconazole.

Driving and using machines

When driving vehicles or using machines it should be taken into account that occasionally dizziness or fits may occur.

Fluconazole contains sodium

This medicine contains 177 mg of sodium (main component of cooking/table salt) in each bottle of 50 ml. This is equivalent to 8.9 % of the recommended maximum daily dietary intake of sodium for an adult.

This medicine contains 354 mg of sodium (main component of cooking/table salt) in each bottle of 100 ml, This is equivalent to 17.7 % of the recommended maximum daily dietary intake of sodium for an adult.

This medicine contains 709 mg of sodium (main component of cooking/table salt) in each bottle of 200 ml. This is equivalent to 35.5 % of the recommended maximum daily dietary intake of sodium for an adult.

3. How Fluconazole is given

This medicine will be given by your doctor or nurse as a slow injection (infusion) into your vein. Fluconazole is supplied as a solution. It will not be diluted further. There is more information for healthcare professionals in a section at the end of the leaflet.

The recommended doses of this medicine for different infections are below. Check with your doctor or nurse if you are not sure why you are being given Fluconazole.

Adults

<i>Condition</i>	<i>Dose</i>
To treat cryptococcal meningitis	400 mg on the first day then 200 mg to 400 mg once daily for 6 to 8 weeks or longer if needed. Sometimes doses are increased up to 800 mg.
To stop cryptococcal meningitis from coming back	200 mg once daily until you are told to stop
To treat coccidioidomycosis	200 mg to 400 mg once daily from 11 months for up to 24 months or longer if needed. Sometimes doses are increased up to 800 mg
To treat internal fungal infections caused by <i>Candida</i>	800 mg on the first day then 400 mg once daily until you are told to stop
To treat mucosal infections affecting the lining of mouth, throat and denture sore mouth	200 mg to 400 mg on the first day then 100 mg to 200 mg once daily until you are told to stop
To treat mucosal thrush – dose depends on where the infection is located	50 mg to 400 mg once daily for 7 to 30 days until you are told to stop
To stop mucosal infections affecting the lining of mouth, throat from coming back	100 mg to 200 mg once daily, or 200 mg 3 times a week, while you are at risk of getting an infection
To stop you from getting an infection caused by <i>Candida</i> (if your immune system is weak and not working properly)	200 mg to 400 mg once daily while you are at risk of getting an infection

Adolescents from 12 to 17 years old

Follow the dose prescribed by your doctor (either adults or children posology)

Children to 11 years old

The maximum dose for children is 400 mg daily.

The dose will be based on the child's weight in kilograms.

<i>Condition</i>	<i>Daily dose</i>
Mucosal thrush and throat infections caused by <i>Candida</i> – dose and duration depends on the severity of the infection and on where the infection is located	3 mg per kg of body weight once daily (6 mg per kg of body weight might be given on the first day)
Cryptococcal meningitis or internal fungal infections caused by <i>Candida</i>	6 mg to 12 mg per kg of body weight once daily
To stop cryptococcal meningitis from coming back	6 mg per kg of body weight once daily
To stop children from getting an infection caused by <i>Candida</i> (if their immune system is not working properly)	3 mg to 12 mg per kg of body weight once daily

Use in children 0 to 4 weeks of age

Use in children of 3 to 4 weeks of age:

- The same dose as above but given once every 2 days. The maximum dose is 12 mg per kg of body weight every 48 hours.

Use in children less than 2 weeks old:

- The same dose as above but given once every 3 days. The maximum dose is 12 mg per kg of body weight every 72 hours.

Elderly

The usual adult dose should be given unless you have kidney problems.

Patients with kidney problems

Your doctor may change your dose, depending on your kidney function.

If you receive more Fluconazole than you should

If you are concerned that you may have been given too much Fluconazole, tell your doctor or nurse immediately. The symptoms of a possible overdose may include hearing, seeing, feeling and thinking things that are not real (hallucination and paranoid behaviour).

If a dose of Fluconazole has been forgotten

As you will be given this medicine under close medical supervision, it is unlikely that a dose would be missed. However, tell your doctor or pharmacist if you think that a dose has been forgotten.

If you have any further questions on the use of this medicine, ask your doctor, pharmacist or nurse.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Stop using Fluconazole and seek medical attention immediately if you notice any of the following symptoms:

- Widespread rash, high body temperature and enlarged lymph nodes (DRESS syndrome or drug hypersensitivity syndrome).

A few people develop allergic reactions although serious allergic reactions are rare (may affect up to 1 in 1 000 people). If you get any of the following symptoms, tell your doctor immediately

- sudden wheezing, difficulty in breathing or tightness in the chest
- swelling of eyelids, face or lips
- itching all over the body reddening of the skin or itchy red spots
- skin rash
- severe skin reactions such as rash that causes blistering (this can affect the mouth and tongue).

Fluconazole may affect your liver. The signs of liver problems include:

- tiredness
- loss of appetite
- vomiting
- yellowing of your skin or the whites of your eyes (jaundice)

If any of these happen, stop taking Fluconazole and *tell your doctor immediately*.

Other side effects:

Additionally, if any of the following side effects gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

Common side effects (may affect up to 1 in 10 people) are:

- headache
- stomach discomfort, diarrhoea, feeling sick, vomiting
- increases in blood tests of liver function
- rash

Uncommon side effects (may affect up to 1 in 100 people) are:

- reduction in red blood cells which can make skin pale and cause weakness or breathlessness
- decreased appetite
- inability to sleep, feeling drowsy
- fit, dizziness, sensation of spinning, tingling, pricking or numbness, changes in sense of taste
- constipation, difficult digestion, wind, dry mouth
- muscle pain
- liver damage and yellowing of the skin and eyes (jaundice)
- wheals, blistering (hives), itching, increased sweating
- tiredness, general feeling of being unwell, fever

Rare side effects (may affect up to 1 in 1 000 people) are:

- lower than normal white blood cells that help defend against infections and blood cells that help to stop bleeding
- red or purple discoloration of the skin which may be caused by low platelet count, other blood cell changes
- blood chemistry changes (high blood levels of cholesterol, fats)
- shaking
- low blood potassium
- abnormal electrocardiogram (ECG), change in heart rate or rhythm,
- liver failure
- allergic reactions (sometimes severe), including widespread blistering rash and skin peeling, severe skin reactions, swelling of the lips or face
- hair loss

Reporting of side effects

If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly (see details below). By reporting side effects you can help provide more information on the safety of this medicine.

United Kingdom (GB and NI):

Yellow Card Scheme

Website: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store

Ireland:

HPRA Pharmacovigilance

Website: www.hpra.ie

5. How to store Fluconazole

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the label and the carton after EXP. The expiry date refers to the last day of that month.

Do not store above 25 °C.

Do not freeze.

The medicinal product must be used immediately after first opening the container.

Use only if the solution is clear and free from visible particles. Do not use if the bottle is damaged.

The bottles are for single use only. Once having been used, bottles and any remaining contents must be disposed of.

Do not throw away any medicine via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Fluconazole contains

- The active substance is fluconazole

Each ml contains 2 mg of fluconazole

- The other ingredients are
Sodium chloride and water for injections

What Fluconazole looks like and contents of the pack

Fluconazole is a clear colourless solution of the above mentioned ingredients in water.

It comes in bottles of polyethylene, containing 50 ml, 100 ml or 200 ml

Pack sizes: Packs of 10, 20 or 50 bottles

Not all pack sizes may be marketed.

Marketing Authorisation Holder and Manufacturer:

Marketing Authorisation Holder:

B. Braun Melsungen AG
Carl-Braun-Straße 1
34212 Melsungen
Germany

Postal address:

34209 Melsungen
Germany

Tel.: +49-5661-71-0

Fax: +49-5661-71-45 67

Manufacturer:

B. Braun Medical S.A.
Carretera de Terrassa, 121
08191 Rubí (Barcelona)
Spain

This medicine is authorised in the Member States of the European Economic Area and in the United Kingdom (GB and NI) under the following names:

Austria	Fluconazol B. Braun 2 mg/ml Infusionslösung
Belgium	Fluconazole B. Braun 2 mg/ml oplossing voor infusie
Denmark	Fluconazole "B. Braun" 2mg/ml
Finland	Fluconazole B. Braun 2 mg/ml infuusioneste, liuos
Germany	Fluconazol B. Braun 2 mg/ml Infusionslösung
Greece	Fluconazole B. Braun 2 mg/ml διάλυμα προς έγχυση
Ireland	Fluconazole 2 mg/ml solution for infusion
Italy	Fluconazolo B. Braun 2 mg/ml soluzione per infusione
Luxembourg	Fluconazol B. Braun 2 mg/ml Infusionslösung
Norway	Fluconazol B. Braun 2 mg/ml infusjonsvaeske, oppløsning
Poland	Fluconazole B. Braun 2 mg/ml, roztwór do infuzji
Slovenia	Flukonazol B. Braun 2 mg/ml raztopina za infudiranje
Spain	Fluconazol B. Braun 2 mg/ml solución para perfusión EFG
Sweden	Fluconazole B. Braun 2 mg/ml infusionsvätska, lösning
United Kingdom (GB and NI)	Fluconazole 2 mg/ml solution for infusion

This leaflet was last revised in February 2024

The following information is intended for healthcare professionals only:

Intravenous infusion should be administered at a rate not exceeding 10 ml/minute. Fluconazole is formulated in sodium chloride 9 mg/ml (0.9 %) solution for infusion, each 200 mg (100 ml bottle) containing 15 mmol each of Na⁺ and Cl⁻. Because Fluconazole is available as a dilute sodium chloride solution, in patients requiring sodium or fluid restriction, consideration should be given to the rate of fluid administration.

Fluconazole 2 mg/ml is compatible with the following administration fluids:

- Glucose 200 mg/ml solution for infusion (if available)
- Ringer's solution for infusion
- Hartmann's solution, Lactated Ringer's solution (if available)

- d) Potassium chloride solution 20 mEq/l in glucose 50 mg/ml (if available)
- e) Sodium bicarbonate 84 mg/ml (8,4 %) solution for infusion (if available)
- f) Sodium Chloride 9 mg/ml (0,9 %) solution for infusion
- g) Sterofundin ISO solution for infusion (if available)

Fluconazole may be infused through an existing line with one of the above listed fluids. Although no specific incompatibilities have been noted, mixing with any other medicinal products prior to infusion is not recommended.

The solution for infusion is for single use only.

Shelf life after first opening:

The medicinal product must be used immediately after first opening the container.

Shelf life after dilution according to directions

For mixtures with the solutions listed above, chemical and physical stability has been demonstrated at 25 °C over 72 hours.

From a microbiological point of view, the dilutions should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2 to 8 °C, unless dilution has taken place in controlled and validated aseptic conditions.

The dilution is to be made under aseptic conditions. The solution is to be inspected visually for particulate matter and discoloration prior to administration. The solution should only be used if the solution is clear and free from particles.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

For complete information on this medicinal product please refer to the summary of product characteristics.