

Nitrofurantoin for urinary tract infections

This leaflet is about the use of nitrofurantoin for urinary tract infections (which may be shortened to UTIs).



This leaflet is for parents and carers about how to use this medicine in children. Our information sometimes differs from that provided by the manufacturers, because their information is usually aimed at adults. Please read this leaflet carefully. Keep it somewhere safe so that you can read it again.

Name of drug

If your child has ever had a reaction to any medicine, check with your doctor that your child can have nitrofurantoin, before giving it.

Nitrofurantoin

Brand names: Aratoin[®], Furdantin[®], Genfura[®], Macrochantin[®],
Modified-release: Macrobid[®]

Why is it important to take this medicine?

A urinary tract infection (UTI) is caused by bacteria in the urine (wee). It is important for your child to take this medicine in the way that your doctor has told you to, so that it kills all the bacteria and gets rid of the infection. If the infection is not treated, there is a risk that it could spread to the kidneys, causing damage.

Nitrofurantoin can also be used to prevent UTIs (prophylaxis) in children with infections that keep coming back, or in children who are at a high risk of such infections. In this case, it prevents the bacteria from growing in your child's urine.

What is nitrofurantoin available as?

- **Tablets:** 50 mg, 100 mg (contain lactose)
- **Capsules:** 50 mg, 100 mg (contain lactose)
- **Modified-release capsules:** 100mg (Macrobid capsules contain sugar and lactose)
- **Liquid medicine (suspension):** 25 mg in 5 mL; sugar-free liquid medicine may be available on request, ask your doctor or pharmacist.

When should I give nitrofurantoin?

For the treatment of a UTI

- Nitrofurantoin is usually given **four times** each day. This is usually first thing in the morning, at about midday, late afternoon and at bedtime. Ideally, these times should be about 4 hours apart (e.g. 8 am, midday, 4 pm, 8 pm).
- Modified-release capsules (Macrobid) are taken **twice** each day, once in the morning and once in the evening. Ideally, these times are 10–12 hours apart, for example some time between 7am and 8 am, and 7pm and 8 pm.

For the prevention of UTI

- Nitrofurantoin is given **once** a day, usually in the evening. Give the medicine at about the same time(s) each day so that this becomes part of your child's daily routine, which will help you to remember.

How much should I give?

Your doctor will work out the amount of nitrofurantoin (the dose) that is right for *your* child. The dose will be shown on the medicine label.

 **It is important that you follow your doctor's instructions about how much to give.**

How should I give it?



Tablets should be swallowed with a glass of water, milk or juice. Your child should not chew the tablet.



Capsules should be swallowed with a glass of water, milk or juice. Your child should not chew the capsule.



Liquid medicine: Shake the bottle well and measure out the right amount using an oral syringe or medicine spoon. You can get these from your pharmacist. Do not use a kitchen teaspoon as it will not give the right amount.

When should the medicine start working?

Your child should start to get better after taking the medicine for 2 days. It is important that they take **the whole course** of medicine that has been prescribed. **Do not stop early.**

What if my child is sick (vomits)?

- If your child is sick less than 30 minutes after having a dose of nitrofurantoin, give them the same dose again.
- If your child is sick more than 30 minutes after having a dose of nitrofurantoin you **do not** need to give them another dose. Wait until the next normal dose.

If your child is sick again, seek advice from your GP, pharmacist or hospital. They will decide what to do based on your child's condition and the specific medicine involved.

What if I forget to give it?

If you usually give it once a day in the evening

If you remember before bedtime, give the missed dose. You do not need to wake a sleeping child to give a missed dose. You can give the missed dose in the morning, as long as this is at least 12 hours before the evening dose is due.

If you usually give it twice a day

If you remember up to 4 hours after you should have given a dose, give your child the missed dose. For example, if you usually give a dose at about 7 am, you can give the missed dose at any time up to 11 am. If you remember after that time, do not give the missed dose. Just give the next dose as usual.

If you usually give it four times a day

Do not give the missed dose. Just give the next dose as usual.

 **Never give a double dose of nitrofurantoin.**

What if I give too much?

You are unlikely to do harm if you give an extra dose of nitrofurantoin by mistake. If you are concerned that you may have given too much, contact your doctor or local NHS services (details at end of leaflet). Have the medicine or packaging with you if you telephone for advice.

Important things to know about taking antibiotics

- It is important that your child **completes the course** of antibiotic. This means that they must take the medicine for the number of days that the doctor has told you to, or until all of the medicine has been taken. If you stop giving the antibiotic too soon, the bacteria that are left will start to multiply again, and may cause another infection. There is also a risk that these bacteria will be 'resistant' to (no longer killed by) the first antibiotic. This means that the antibiotic might not work next time your child has an infection.
- Children are sometimes sick (vomit) or get diarrhoea when taking antibiotics. Encourage them to drink water to replace the fluid they have lost.

- **Do not** give your child any medicine to stop the diarrhoea unless your doctor has told you to.
- Try to give the medicine at about the same times each day, to help you remember, and to make sure that there is the right amount of medicine in your child's body to kill the bacteria.
- Only give this medicine to your child for their current infection. **Never save** medicine for future illnesses. Return any unused antibiotics to your pharmacist.
- Only give the antibiotic to the child for whom it was prescribed. Never give it to anyone else, even if their condition appears to be the same, as this could do harm.

 If you think someone else may have taken the medicine by accident, contact your doctor for advice.

Are there any possible side-effects?

We use medicines to make our children better, but sometimes they have other effects that we don't want (side-effects).

Side effects you must do something about

 If your child is short of breath or is wheezing, or their face, lips or tongue start to swell, or they develop a rash, they may be allergic to nitrofurantoin. **Take your child to hospital or call an ambulance straight away.**

 Nitrofurantoin very rarely causes serious side-effects. They are not likely to happen, but you should contact your doctor straight away if your child has any of the following symptoms:

- their skin starts to turn red and then blisters or peels
- they experience bad headaches
- they are more sleepy than normal or have blurry or double vision.
- persistent fever, chills or cough that does not settle

Other side-effects you need to know about:

- Nitrofurantoin may make your child's urine go yellow/brown. This is nothing to worry about and will go away when the medicine is stopped.
- Nitrofurantoin may cause dizziness and drowsiness.
- Some children get diarrhoea or stomach pains and may feel sick (nausea) or be sick (vomit) when they first start taking nitrofurantoin. Giving the medicine with some food or milk may help. This should get better after a week or so as your child gets used to the medicine.
- Your child's hair may become thinner and some may fall out. It should grow back when the medicine is stopped. If this happens, discuss it with your doctor at your next visit.
- Your child may get tingling or numbness in their hands or feet. Contact your doctor if this happens.
- Your child's skin may feel itchy. Using a moisturising cream may help, but it should get better on its own.

Contact your doctor if you are worried about any of these side-effects.

There may, sometimes, be other side-effects that are not listed here. If you notice anything unusual and are concerned, contact your doctor. You can report any suspected side-effects to a UK safety scheme at www.mhra.gov.uk/yellowcard

Can other medicines be given at the same time?

- You can give your child medicines that contain paracetamol or ibuprofen, unless your doctor has told you not to.
- Nitrofurantoin should not be taken with some medicines that you get on prescription. Tell your doctor and pharmacist about any other medicines your child is taking before giving nitrofurantoin.
- Check with your doctor or pharmacist **before** giving any other medicines to your child. This includes herbal or complementary medicines.

Is there anything else I need to know?

 Your child should not have nitrofurantoin if they have G6PD deficiency or porphyria.

Where should I keep this medicine?

- Keep the medicine in a cupboard, away from heat and direct sunlight. It does not need to be kept in the fridge.
- Make sure that children cannot see or reach it.
- Keep the medicine in the container it came in.

Who to contact for more information

Your doctor, pharmacist or nurse will be able to give you more information about nitrofurantoin and about other medicines used to treat UTIs. You can also get useful information from:

England: NHS 111 Tel 111 - www.nhs.uk

Scotland: NHS 24 Tel 111 - www.nhs24.scot

Wales: NHS Direct Tel 0845 4647 (2p per min) or 111 (free) www.nhsdirect.wales.nhs.uk

Northern Ireland: NI Direct - www.nidirect.gov.uk

www.medicinesforchildren.org.uk



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The primary source for the information in this leaflet is the British National Formulary for Children. For details on any other sources used for this leaflet, please contact us through our website, www.medicinesforchildren.org.uk. We take great care to make sure that the information in this leaflet is correct and up-to-date. However, medicines can be used in different ways for different patients. It is important that you ask the advice of your doctor or pharmacist if you are not sure about something. This leaflet is about the use of these medicines in the UK, and may not apply to other countries. The Royal College of Paediatrics and Child Health (RCPCH), the Neonatal and Paediatric Pharmacists Group (NPPG), WellChild and the contributors and editors cannot be held responsible for the accuracy of information, omissions of information, or any actions that may be taken as a consequence of reading this leaflet.