

GENTAMICIN

Brand names Cidomycin, Genticin, Minims gentamicin
Used in the following combined preparation Gentisone HC

GENERAL INFORMATION

Gentamicin is one of the aminoglycoside antibiotics. The injectable form is usually reserved for hospital treatment of serious infections. These include lung, urinary tract, bone, joint, and wound infections, as well as peritonitis, septicaemia, and meningitis. This form is also used together with a penicillin for prevention and treatment of heart valve infections (endocarditis).

In the form of drops, gentamicin is used to treat eye and ear infections.

Gentamicin given by injection can have serious adverse effects on the ears and the kidneys. Damage to the ears may lead to deafness and problems with the balance mechanism in the inner ear. Courses of treatment are, therefore, limited to seven days when this is possible. Treatment is monitored by measuring blood levels of gentamicin, especially when high doses are needed or kidney function is poor.

QUICK REFERENCE

Drug group Aminoglycoside antibiotic (p.86)
Overdose danger rating Low
Dependence rating Low
Prescription needed Yes
Available as generic Yes

INFORMATION FOR USERS

Your drug prescription is tailored for you. Do not alter dosage without checking with your doctor.

How taken/used



Injection, eye/ear drops.

Frequency and timing of doses

1–3 x daily (injection); 3–4 x daily or as directed (ear drops); every 2 hours or as directed (eye drops).

Adult dosage range

According to condition and response (injection); according to your doctor's instructions (eye and ear drops).

Onset of effect

Within 1–2 hours.

Duration of action

8–12 hours.

Diet advice

None.

Storage

Keep in original container at room temperature out of the reach of children.

Missed dose

Apply eye/ear preparations as soon as you remember.

Stopping the drug

Complete the course. Even if you feel better, the original infection may still be present and may recur if treatment is stopped too soon.

Exceeding the dose

Although overdose by injection is dangerous, it is unlikely because treatment is carefully monitored. For other preparations of the drug, an occasional unintentional extra dose is unlikely to cause concern. But if you notice any unusual symptoms, notify your doctor.

SPECIAL PRECAUTIONS

Be sure to tell your doctor if:

- You have a long-term kidney problem.
- You have a hearing disorder, especially a perforated eardrum.
- You have myasthenia gravis.
- You have Parkinson's disease.
- You have previously had an allergic reaction to aminoglycosides.
- You are taking other medicines.



Pregnancy

No evidence of risk with eye or ear drops. Injections are not prescribed, as they may cause hearing defects in the baby. Discuss with your doctor.



Breast-feeding

No evidence of risk with eye or ear preparations. Given by injection, the drug may pass into the breast milk. Discuss with your doctor.



Infants and children

Reduced dose necessary for injections.



Over 60

Increased likelihood of adverse effects. Close monitoring of treatment is therefore necessary.



Driving and hazardous work

No known problems from preparations for the eye or ear.



Alcohol

No known problems.

POSSIBLE ADVERSE EFFECTS

Adverse effects are rare but those that occur with the injectable form of gentamicin may be serious. Dizziness, loss of balance (vertigo), impaired hearing, and changes in the urine should be reported promptly. If ear drops are used when the eardrum is perforated, damage

to the inner ear may occur. Allergic reactions, including rash and itching, may occur with all preparations that contain gentamicin. Blurred vision or eye irritation may occur with the eye preparations and should be reported to your doctor.

Symptom/effect	Frequency		Discuss with doctor		Stop taking drug now	Call doctor now
	Common	Rare	Only if severe	In all cases		
Nausea/vomiting		●	●			
Dizziness/vertigo		●		●	●	●
Rash/itching		●		●	●	●
Ringings in the ears		●		●	●	●
Loss of hearing		●		●	●	●
Bloody/cloudy urine		●		●	●	●

INTERACTIONS

General note A wide range of drugs, including furosemide, vancomycin, and cephalosporins, increase the risk of hearing

loss and/or kidney failure with gentamicin given by injection.

PROLONGED USE

Not usually given for longer than seven days. When given by injection, there is a risk of adverse effects on hearing and balance.

Monitoring Blood levels of the drug are usually checked if it is given by injection. Tests on kidney function are also usually carried out.