What is gabapentin (Neurontin), and how does it work (mechanism of action)

Gabapentin is an anti-seizure (anti-convulsant) drug that is used for preventing seizures and for treating post-herpetic neuralgia, the pain that follows an episode of shingles.

Doctors do not know how gabapentin works (the mechanism of action). Gabapentin structurally resembles the neurotransmitter gamma aminobutyric acid (GABA). (Neurotransmitters are drugs that nerves use to communicate with one another.) It is possible that this similarity is related to gabapentin's mechanism of action. In animal models used for testing the anticonvulsant and analgesic (anti-pain) activities of drugs, gabapentin prevents seizures and reduces pain-related responses.

Is gabapentin (Neurontin) available as a generic drug?

Yes, this drug is available in generic form.

Do I need a prescription for this drug?

Yes, you need a prescription from your doctor or other medical health care professional for gabapentin.

What are the FDA and non-FDA approved uses for gabapentin (Neurontin)?

- Gabapentin is approved for treating seizure disorders and nerve damage from herpes zoster (shingles, postherpetic neuralgia).

- There are many non FDA-approved uses for gabapentin. These include
  - Alcohol withdrawal
  - Cocaine withdrawal
  - Hiccups
  - Restless leg syndrome
  - Hyperhidrosis
  - Headaches
  - Diabetic neuropathy
  - Hot flashes
What are the side effects of gabapentin (Neurontin)?

The most common side effects of gabapentin are:

- Dizziness
- Sleepiness
- Ataxia
- Fatigue
- Drowsiness
- Fluid retention (edema)
- Hostility
- Nausea
- Vomiting
- Difficulty speaking
- Jerky movements
- Unusual eye movements
• Double vision
• Tremors
• Memory loss
• Unsteadiness

Other adverse effects and serious side effects associated with gabapentin include:

• Weight gain
• Joint pain
• Motion sickness
• Blurred vision
• Viral infection

Antiepileptic medications have been associated with an increased risk of suicidal thinking and behavior. Anyone considering the use of antiepileptic drugs must balance this risk of suicide with the clinical need. Patients who are started on therapy should be closely observed for clinical worsening, suicidal thoughts, or unusual changes in behavior.

What is the dosage for gabapentin (Neurontin)? How should I take it?

Gabapentin is available as:

• Capsules: 100, 300, and 400 mg.
• Tablets: 100, 300, 400, 600, and 800 mg.
• Solution: 250 mg/5 ml

Dosage for postherpetic neuralgia and seizures.

• The recommended dose for postherpetic neuralgia is 1800 mg daily in 3 divided doses (Neurontin) or 1800 mg once daily (Gralise). Gralise is not interchangeable with other gabapentin products.
• Seizures are treated with 900-1800 mg/daily in 3 divided doses (Neurontin). Withdrawal of treatment should occur slowly over a week.

Gabapentin may be taken with or without food.

Is gabapentin (Neurontin) an opioid narcotic? Is it addictive?
Gabapentin is not an opioid narcotic, and it is not classified as a controlled substance by the Drug Enforcement Agency (DEA). However, this medication does share signs and symptoms associated with drug misuse, addiction, and withdrawal symptoms of opioids like:

- Sweating
- Anxiety
- Muscle pain
- Insomnia
- Goosebumps (philoerections)

There have been reports of patients abusing this drug.

Which drugs or supplements interact with this drug?

- Antacids reduce the concentration of gabapentin in blood. Therefore, gabapentin should be administered 2 hours or more after taking antacids.
- Morphine significantly increases blood concentrations of gabapentin and may increase central nervous system-related adverse events associated with gabapentin.

Is gabapentin (Neurontin) safe to use if I'm pregnant or breastfeeding?

- Doctors do not know the safety of gabapentin during pregnancy.
Gabapentin is secreted in human breast milk; therefore, if you are pregnant you should only use this medication if the benefits outweigh the unknown risk to the fetus.

What else should I know about this drug?

How should I keep gabapentin stored?

- Tablets and capsules should be stored between 15 C and 30 C (59 F to 86 F).
- Gabapentin solution should be refrigerated between 2 C and 8 C (36 F to 46 F).

When was gabapentin approved by the FDA?

- The FDA approved gabapentin in December 1993.

Summary

Gabapentin (Neurontin, Gralise, Horizant, Fanatrex FusePag) is a drug prescribed for the treatment of seizure disorders, nerve damage from shingles and postherptic neuralgia. Off label uses of gabapentin include treatment for:

- Substance abuse withdrawal
- Hiccups
- RLS (restless legs syndrome)
- Headaches
- Diabetic neuropathy
- Hot flashes
- Fibromyalgia
- Hyperhydrosis

See more info: gabapentin on RxList

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