

# Cisplatin

Cisplatin, cisplatinum, platamin, neoplatin, cismaplat or cis-diamminedichloroplatinum(II) (CDDP) is a chemotherapy drug.

Platinum-based [antineoplastic](#) drugs (informally called platins) are chemotherapeutic agents used to treat cancer. They are coordination complexes of platinum. These drugs are used to treat almost 50% of cancer patients.

It was the first member of a class of platinum-containing anti-cancer drugs, which now also includes carboplatin and oxaliplatin. These platinum complexes react in vivo, binding to and causing crosslinking of DNA, which ultimately triggers apoptosis ([programmed cell death](#)).

It is on the World Health Organization's List of Essential Medicines, a list of the most important medications needed in a basic health system.

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Cisplatin is a chemotherapy drug that is commonly used to treat various types of cancer, including brain tumors. Cisplatin is an alkylating agent that interferes with the DNA of cancer cells, causing them to die. In neurosurgery, cisplatin is often used as an adjuvant therapy in combination with radiation therapy and/or surgery to treat brain tumors. Cisplatin is typically administered via injection into the bloodstream and can cross the blood-brain barrier to reach the tumor.

Cisplatin has been shown to be effective in treating brain tumors, especially those that are malignant and not operable. However, the use of cisplatin in neurosurgery also has some potential side effects, such as nausea, vomiting, hair loss, and hearing loss. Cisplatin also can cause damage to healthy cells and organs, such as the kidneys, liver, and lungs. It is important to monitor the patient's health during and after cisplatin treatment.

It's important to note that despite its effectiveness, cisplatin is not suitable for all types of brain tumors, and the decision to use cisplatin in a patient is made by a team of doctors, including a neurosurgeon and a medical oncologist, taking into account the patient's overall health and the type and stage of the tumor.

## Cisplatin resistance

[Cisplatin resistance](#)

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