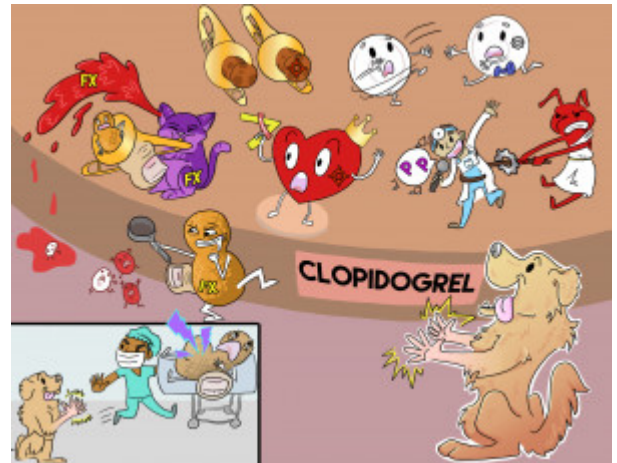


## Clopidogrel (Plavix)

Clopidogrel, also known as plavix, is considered an antiplatelet medication that works as an ADP receptor antagonist to prevent platelet aggregation. Clopidogrel is indicated for treatment of coronary syndrome and in order to prevent thrombotic events. Side effects of clopidogrel include hemorrhage, abdominal pain, thrombotic thrombocytopenic purpura, and pancytopenia. It is important that this medication is held before surgery in order to prevent increased bleeding during surgery.



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### Mechanism

#### ADP Receptor Antagonist

[A-dentist-sings-P's with Ant-toga](#)

Clopidogrel works by antagonizing ADP receptors in order to prevent ADP mediated aggregation. These effects are irreversible and last the full lifespan of the platelet.

#### Prevent Platelet Aggregation

[Plates can't Connect](#)

By blocking ADP receptors, clopidogrel prevents ADP regulated aggregation. These effects are irreversible and last the entire lifespan of the platelet, approximately 3-7 days.

### Indications

#### Acute Coronary Syndrome (ACS)

[Acute-angle Crown Heart](#)

Due to clopidogrel anti-thrombotic properties, it may be indicated for the management of acute coronary syndrome because this medication prevents blockages from forming within coronary arteries.

#### Prevention of Thrombotic Events

[Plugged Trombones Event](#)

As an antiplatelet medication, clopidogrel is used to prevent thrombotic events, such as myocardial infarction and ischemia. For those who do not tolerate aspirin well, this medication can be used as a second line of treatment.

### Side Effects

#### Bleeding

[Bleeding](#)

One of the main complications related to clopidogrel is hemorrhage. This occurs due to the antiplatelet properties of the medication. The patient taking clopidogrel should be on bleeding precautions and should be closely monitored for signs of bleeding. Further, clopidogrel should be monitored closely, if used with other drugs that promote bleeding.

### **Thrombotic Thrombocytopenic Purpura (TTP)**

**Trombone-side-toe-peanut with Purple-cat**

Thrombotic thrombocytopenic purpura is a serious complication that may occur due to use of clopidogrel. This side effect can cause small blood clots to form within the small vessels of the body leading to issues related to organ function. Patients should be monitored closely for signs of TTP including: bruising, kidney failure, fever, anemia, thrombocytopenia, and neurological symptoms.

### **Pancytopenia**

**Pan-side-toe-peanut**

Pancytopenia, which includes thrombocytopenia, leukopenia, and anemia, may occur with use of clopidogrel. For this reason, complete blood counts (CBC) should be closely monitored in patients receiving clopidogrel.

### **Abdominal Pain**

**Abdominal Pain-bolt**

Clopidogrel is absorbed in the gastrointestinal tract; therefore, it may cause abdominal pain related to GI bleeding. Patients taking clopidogrel should be monitored for abdominal pain and other signs of GI bleeding, such as blood in the feces.

## **Considerations**

### **Withhold Before Surgery**

**Held Back by Surgeon**

Due to the increased risk of bleeding from decreased formation of platelets, clopidogrel should be withheld 5 days before elective surgery to decrease the risk of hemorrhage during surgery. Some patients are kept on clopidogrel and the bleeding is managed, as discontinuing the medication may lead to a thrombotic episode.