

# Dexamethasone

## First Line Treatment

Corticosteroids or steroids are the standard first-line treatment approach for Immune Thrombocytopenia (ITP) and usually include prednisone or dexamethasone.

These treatments are based on a naturally occurring hormone produced by the adrenal glands involved in controlling inflammation, stress response, metabolism, behaviour, electrolyte balance and more.

Corticosteroids work by suppressing the immune system to raise the platelet count.



### **BRAND NAMES** Dexamethasone



### **HOW DOES THE TREATMENT WORK?**

Dexamethasone reduces the destruction of antibody-coated platelets in the blood and bone marrow, thereby increasing effective platelet production. It may also reduce ITP bleeding by directly impacting the blood vessels.



### **HOW IS IT ADMINISTERED?**

It can be administered by intravenous injection or orally as a tablet or liquid.

It is recommended to be administered after meals or with food or milk to decrease gastrointestinal upset.



### **DOSAGE**

40 mg/day or 0.6mg/kg per day for four days.



### **COMMON SIDE EFFECTS**

The side effects vary with dose and duration of administration.

Common side effects include mood swings, anger, anxiety, insomnia (difficulty sleeping), weight gain, cushingoid face (puffy and rounder facial features), stomach irritation, ulcers, high blood pressure, high blood sugar, and fluid retention.

In younger children, an increased appetite and irritability are also common.

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### RARE SIDE EFFECTS

Corticosteroids can lead to reduced growth when used long-term in paediatric patients. Other rare side effects can include osteoporosis (weakening of bones), skin changes including thinning and senile purpura, hair loss, avascular necrosis (death of bone) of joints, psychosis, cataracts, infections, adrenal insufficiency with repetitive cycles.

A rapid decline in platelet count may occur between cycles.



### TREATMENT RESPONSE

Initial response time is between 3 and 14 days, with a peak response of 4 to 28 days.



### LIKELIHOOD OF AN INITIAL RESPONSE

Approximately 80%.



### LIKELIHOOD OF A LONG-TERM RESPONSE?

Platelet counts generally fall as the dose is reduced or the drug is discontinued. There is no evidence that long-term use leads to sustained response.



### OTHER CONSIDERATIONS

Mood alterations are widely reported.

Corticosteroids are widely used as an initial therapy in ITP, and the American Society of Hematology (ASH) Guidelines panel recommends that children who:

- have non-life threatening mucosal bleeding and/or diminished HRQoL, against courses of corticosteroids longer than 7 days and in favour of courses 7 days or shorter.
- have non-life threatening mucosal bleeding and/or diminished HRQoL, suggests prednisolone rather than dexamethasone.
- are newly diagnosed with no or minor bleeding, recommends observation rather than corticosteroids.

### REFERENCES

<https://itpaustralia.org.au/itp-in-children/>

<http://itpaustralia.org.au/wp-content/uploads/2024/10/2023-ANZCHOG-Paediatric-ITP-Treatment-Guidelines.pdf>

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