

Antenatal Corticosteroids for Preterm Birth

Whānau Information

What are antenatal corticosteroids ?

Corticosteroids are a treatment that may be given to wāhine/people just before birth (antenatal) when birth is likely to be before 35 weeks of pregnancy. This treatment helps pēpi to survive and be healthy.

Corticosteroids are given as **an injection into māmā/person's buttock, thigh or arm muscle**. Betamethasone is the usual corticosteroid used in Aotearoa. The corticosteroid is absorbed into māmā/person's blood stream and then passes across the whenua/placenta to pēpi.

Corticosteroids start to be effective as soon as they are given and work best when given between 48 hours and seven days before birth. A **first course** is given as two injections 24 hours apart. If the wāhine/person remains pregnant a week after corticosteroids have been given and there is still a risk of preterm birth within the next week, a **repeat dose** may be given.



What are the benefits of antenatal corticosteroids for preterm pēpi?

Over the last 50+ years there has been a lot of research about the benefits and risks of giving corticosteroids to māmā/people before preterm birth. There is strong evidence to support the benefits for pēpi when they are given within a week before birth at less than 35 weeks. **The use of antenatal corticosteroids before birth less than 35 weeks, is now considered best practice globally.**

Multiple research trials shows that for preterm pēpi, antenatal corticosteroid treatment:

- Increases the chance of pēpi surviving
- Lowers the chance of pēpi having major complications like:
 - Breathing problems (called respiratory distress syndrome)
 - Bleeding in the brain (called intraventricular haemorrhage)
 - Inflammation of the gut/intestines (called necrotising enterocolitis)
 - Delay in childhood development.

Are there any side effects of antenatal corticosteroids for wāhine/people?

Corticosteroids are safe for use in pregnancy. They are not associated with any increased chance of infection in the uterus/womb (known as chorioamnionitis and endometritis).

Some wāhine/people experience side effects including:

- Pain, discomfort or bruising at the injection site
- Sleep disturbance for the first 1-2 nights
- Short term increase in blood sugar level for those with diabetes in pregnancy. This may require changes in diabetes medication around the time of injections, your doctor will discuss this with you.
- Headache
- Stomach upset

When should antenatal corticosteroids for preterm birth be used?:

A **first course** (two doses) If you are less than 35⁺⁰ weeks of pregnancy, and

- your waters/membranes have broken or you are having symptoms of preterm labour and labour is anticipated in the next seven days OR
- birth is planned within the next seven days because of concern for your and/or pēpi wellbeing.

A **repeat dose** If you are less than 33⁺⁰ weeks of pregnancy, and

- it has been more than 7 days since your last injection (to a total of 3 weekly repeats) AND
- and the chance of preterm birth in the next seven days remains high.

Antenatal corticosteroids are recommended regardless of whether

- you are planning vaginal birth or caesarean section
- you are having one pēpi or twins/triplets/more.

If you are **between 22⁺⁵ and 24⁺⁶ weeks** of pregnancy, your doctors and midwives will talk to you about your individual situation and whether corticosteroids are the best option. You can find more information about expecting birth at this very early stage on the Carosika Collaborative website.

When should antenatal corticosteroids for preterm birth not be used?

- if birth is unlikely in the next seven days (as the beneficial effect will have worn off by the time of birth)
- if māmā/person and/or pēpi is sick and immediate birth is recommended (corticosteroids can still be given if birth will be within the next few hours, as they start to have some effect straight away)
- routinely if birth may occur at 35⁺⁰ to 36⁺⁶ weeks. We have additional Whānau Information about corticosteroids for late preterm birth, this can be found on our website.



Other questions you may have?

Do I need to wait 24 hours between the two injections?

Yes. There is no evidence that giving corticosteroid injections closer together is more beneficial. We recommend waiting 24 hours for the second injection, even if birth is thought likely to occur in that time.

What can help me to reach the 48 hours where corticosteroids have their maximum effect?

If you are having contractions, a medication may be given to reduce them, allowing time for the corticosteroids to have their full effect.

Are there any long-term effects of antenatal corticosteroid use for preterm birth?

Some research on the potential longer-term effects of corticosteroids has led to hesitation about using corticosteroids for wāhine/people in some situations.

A population-based study suggests that for pēpi born at term, corticosteroids (given preterm) may increase the chance of childhood behavioural and mental disorders. There was no effect for pēpi born preterm. Information was collected from national registries rather than directly from whānau and wasn't able to fully account for why corticosteroids were used (which may also affect wellbeing). This study does not mean that corticosteroids for preterm birth are bad for pēpi but reinforces how important it is to only use them if there is a genuine chance of preterm birth.

Some studies suggest corticosteroid use may result in a lower birthweight for pēpi. When all the high-quality clinical trials are considered together this effect is not seen.

The latest evidence from the 50-year follow-up of the adults born to māmā/people in the first-ever corticosteroid clinical trial is very reassuring. There is no effect on heart and breathing health, mental wellbeing or on educational and employment achievements.

This Carosika Collaborative Whānau Information tool should be provided and used to support conversations between whānau and healthcare providers.

For more information including access to Taonga Tuku Iho (national best practice guide), you can access the Carosika Collaborative website www.carosikacollaborative.co.nz or by using the QR code.



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