

## Looping and prednisone

Prednisone is a powerful therapy used to reduce inflammation for the treatment of many conditions including arthritis, asthma, skin disorders and some cancers. It does so by suppressing the immune system. Prednisone is a member of a class of drugs called glucocorticoids sometimes called simply “steroids” which include dexamethasone, hydrocortisone, methylprednisolone, and betamethasone - all have the same basic effect of reducing inflammation. Such “steroids” should not be confused with anabolic steroids which are used to build muscles. Anabolic steroids do not affect sugar levels or reduce inflammation.

Glucocorticoids have a predictable side effect of raising glucose through a combination of increasing glucose production by the liver and reducing insulin sensitivity in muscle. The effect of prednisone (and methylprednisolone) on sugar starts within an hour of taking the medication and then lasts 10-12 hours. The effect with dexamethasone lasts up to 24 hours; with hydrocortisone it lasts 3-4 hours.

The higher the dose of glucocorticoid, the greater the anti-inflammatory effect and the greater the rise is sugar. For prednisone and methylprednisolone doses > 20 mg per day (or dexamethasone doses > 4 mg daily) the glucose-raising effect is strong.

The simplest intervention for Loopers using glucocorticoids is to create a **custom preset (override)** function, which enables users to temporarily modify insulin delivery settings. This feature allows users to fine-tune their insulin dosing in response to the glucose-raising effects of steroids.

### Example: Steps to Set Up a Custom Preset in Loop for prednisone 20 mg daily:

1. Open the Loop app on your device.
2. Tap the blue heart icon located in the lower panel of the Home Screen.
3. Press the "+" sign in the top right corner to create a new custom preset.
4. Name your preset (e.g., "Steroid Adjustment").
5. Adjust insulin delivery:
  - Your current settings deliver 100% of your standard insulin needs.
  - Setting the insulin delivery to 150% increases basal rate, bolus insulin, and correction doses by 50% (setting it to 80% decreases insulin delivery by 20%).
6. Set your target range, adjusting it as needed.
7. Choose the duration:
  - You can configure the custom preset for a specific number of hours or leave it active until manually disabled.

### Recommended custom preset for prednisone use (see screenshot below):

- 150% insulin needs
- Target range: 5.5 - 5.5 mmol/L
- Duration: 10 hours
- Start time: 1 hour after taking the prednisone pill(s)


This adjustment helps compensate for the glucose-raising effects of steroids. However, individual responses may vary, making continuous glucose monitoring (CGM) essential to optimize insulin adjustments.

## Monitoring and Adjustments

- Regularly check CGM trends to assess the effectiveness of the preset.
- If glucose levels continue to rise, consider increasing the preset percentage. Some users may need to increase to 200% or more .
- If experiencing lows, reduce the preset percentage accordingly.

[Cancel](#) **New Preset** [Save](#)

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Symbol 

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Name Steroid adjustment

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Overall Insulin Needs 150%



Basal, bolus, and correction insulin dose amounts are increased by 50%.

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Target Range 5.5 – 5.5 mg/dL

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Enable Indefinitely

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Duration 10 hr

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short URL = <https://bit.ly/LoopPrednisone>