

# Beta-Blockers Usage Guide for Dysautonomia

## General Information

- Common agents: Propranolol (Inderal or Deralin), Bisoprolol (Bicor), Atenolol (Noten), or other beta-blockers.
- Well-known class of medications familiar to all doctors.
- Mechanism: Works by slowing the pulse.
- Paradoxical effect in POTS: May improve symptoms despite lowering blood pressure.

## Important Notes

- Contraindicated in people with asthma (though the more cardio-selective agents are usually safe in mild to moderate cases — this would need discussion with the prescribing practitioner).
- If you feel notably worse in any way, stop taking and discuss with your treating practitioner.
- The ideal is to feel better, not worse.
- If no benefit is observed, try other treatments.
- May reduce blood volume, which can be a concern in hypovolemic patients.

## Common Side Effects

- Apathy.
- Nightmares.
- Erectile dysfunction.
- Excessive heart rate slowing.
- Dizziness on standing (may paradoxically improve in POTS).

## Propranolol Protocol

**Advantages:** Well-studied in POTS, affordable, may reduce migraine frequency.

**Disadvantages:** Can negatively impact the effect of some ADHD medications.

Dosage: 10mg tablets, and 40mg tablets available for higher doses.

Increase every 3–5 days as follows:

Days	Morning Dose	Evening Dose
1–3+	1 tablet	1 tablet
4–6+	2 tablets	2 tablets
7–9+	3 tablets	3 tablets
10–12+	4 tablets	4 tablets

Note: Increase dose only if needed and well-tolerated. Do not exceed recommended maximum dose without discussing with your doctor first.

## Bisoprolol Protocol

**Advantages:** Affordable, doesn't get into the brain well (less apathy and nightmares), can be only once a day.

**Disadvantages:** Not as well studied in POTS, won't help migraine.

Dosage forms: 2.5mg, 5mg and 10mg tablets

Increase every 3–5 days as follows:

Days	Morning Dose	Evening Dose
1–3+	2.5mg	2.5mg
4–6+	5mg	5mg
7–9+	7.5mg	7.5mg
10–12+	10mg	10mg

Note: Increase dose only if needed and well-tolerated. Do not exceed recommended maximum dose without discussing with your doctor first.

Very, very, few people will get to the 20mg total a day, but for a minority that is what it takes.

Once twice a day dosing is established, if desired you can try taking it all at once daily (i.e. instead of 5mg twice a day, just take 10mg of a morning) and see if that works just as well and is simpler. If it doesn't work as well then go back to the divided dosing.

## Additional Considerations

- **Combination Therapy:** Very little point in taking both a beta-blocker and ivabradine as they both work to slow the heart. However, in some cases where each agent is dose-limited by side effects, a combination of two agents at low doses may be successful.
- **Monitoring:** Regular heart rate and blood pressure checks.
- **Gradual Discontinuation:** Do not stop suddenly; taper off.
- **Drug Interactions:** Inform all healthcare providers about this medication.
- **Pregnancy/Breastfeeding:** Discuss risks and benefits with your doctor (Labetalol is generally the preferred beta-blocking agent in pregnancy and it's relatively easy to convert across).
- **Diabetes:** Can mask symptoms of low blood sugar; monitor glucose levels carefully.
- **Asthma:** Use with caution in patients with respiratory conditions.

## For Medical Practitioners

- Consider combining low doses of beta-blockers with ivabradine in select cases where each agent is dose-limited by side effects.
- Be aware of potential interactions with psychiatric or ADHD medications, especially for Propranolol.
- Educate patients on recognising signs of excessive beta-blockade (e.g. bradycardia, hypotension).

Remember: Individualise treatment based on patient response and always prioritise patient safety.