Treprostinil (Tyvaso Dried Powder Inhalation)

Updated August 2023

Tyvaso DPI is an inhaled medication to treat pulmonary arterial hypertension (PAH), also known as Group 1 pulmonary hypertension, and interstitial lung disease, also known as Group 3 pulmonary hypertension. Tyvaso DPI may improve patients’ ability to exercise, reduce strain on the heart and lessen disease progression.

The Food and Drug Administration approved Tyvaso DPI to treat PAH and interstitial lung disease in May 2022.

How Tyvaso DPI works

Treprostinil is a manufactured prostacyclin. Prostacyclins are hormones that affect blood vessel dilation and are low in people with pulmonary hypertension. Tyvaso DPI works by increasing the prostacyclin level. The medication is delivered directly to the lungs to widen narrowed blood vessels in the lungs. The medicine also can prevent platelets from clumping together to form blood clots. Relaxing and widening of the blood vessels in the lungs reduces pulmonary pressure. Lower pressure in the pulmonary arteries decreases the resistance or workload of the right ventricle to pump blood to the lungs.

Dosing and administration

How to use: Insert medication cartridges into a portable Tyvaso DPI inhaler for each treatment. Treatment consists of a single inhalation or one breath from a single-dose cartridge. You’ll need four treatment sessions each day during waking hours, about four hours apart.

Use one inhaler each week, then discard. You will receive five inhalers each month.

**Initial dosage:** One 16 microgram cartridge per treatment session. Dosage typically increases 16 mcg per treatment session at one- to two-week intervals, if tolerated. Your physician will determine a target maintenance dose. At higher doses, you might need two cartridge strengths per treatment session to achieve the dose.

Tyvaso DPI comes in single dose, color-coded cartridges:

- 16 mcg (purple).
- 32 mcg (dark blue).
- 48 mcg (light blue).
- 64 mcg (light green).

If you miss a scheduled treatment session, resume therapy as soon as possible at the usual time for your next dose.

If you go to the emergency room or are hospitalized, bring your Tyvaso DPI inhalers and medication cartridges.

https://phassociation.org/patients/treatments/treprostinil-inhaled/
Storage

Use unopened Tyvaso DPI cartridges within five weeks if not refrigerated. If you store cartridges in a refrigerator at 36 to 46 degrees F, the cartridges will be good until the expiration date.

If you refrigerate the cartridges, make sure the cartridge and inhaler are at room temperature for 10 minutes before use.

Use opened medication cartridges within three days. Don’t put back in refrigerator.

Obtaining Tyvaso DPI

Tyvaso DPI is a limited-distribution medication, which means you can’t buy it at a local pharmacy. It must be prescribed by a physician, and you’ll need insurance approval before starting therapy. Once you obtain prior authorization, a specialty pharmacy will send you a Tyvaso DPI kit with a four-week supply of disposable inhalers and cartridges. Specialty pharmacies include Accredo Specialty Pharmacy and CVS Caremark Specialty Pharmacy. A specialty pharmacy home nurse will teach you how to properly administer Tyvaso DPI.

Insurance coverage

Most health insurance plans will pay part of the cost of this medication. However, some plans leave patients with high out-of-pocket costs. Ask your specialty pharmacy or prescribing physician about financial assistance through a charitable foundation or the drug manufacturer’s patient assistance program. Find more information from PHA or call 301-565-3004.

Possible side effects

- Cough.
- Headache.
- Throat irritation/pain.
- Nausea.
- Reddening of the face and neck (flushing).
- Dizziness/fainting or loss of consciousness.
- Shortness of breath.

Possible serious side effects

- Low blood pressure.
- Bleeding problems, especially for people who take blood thinners.
- Bronchospasm, a tightening of the muscles that line the airways in your lungs.

**Monitoring for side effects**

Your doctor's office and specialty pharmacy RN will monitor you for toleration/side effects when you start therapy and when your dosage increases. Your doctor will monitor your blood pressure frequently because of the medication's potential to lower blood pressure. Your doctor will assess your ability to exercise on Tyvaso DPI.

**Drug interactions**

Discuss the medicines you take before starting a new treatment with your health care provider.

- Blood pressure or heart disease medications may need to be adjusted.
- Medicines that decrease blood clotting.
- Water pills (diuretics).
- Gemfibrosil (Lopid) or Rifampin (Rimactane, Rifadin, Rifamate, Rifater).

Note: Dialysis doesn't clear Tyvaso DPI. Tyvaso DPI doesn't affect warfarin use.

**Special considerations**

**Pregnancy and breastfeeding:** Tyvaso DPI hasn't been studied in pregnant or breastfeeding woman. It's not known whether the medication will harm a fetus or can be passed into breast milk. Talk to your health care provider if you are pregnant, plan to become pregnant or are breastfeeding.

**Pediatric patients:** Tyvaso DPI hasn't been studied in patients younger than 18.