

# Daytrana

(methylphenidate transdermal system)

## **Indication**

Daytrana is a prescription central nervous system (CNS) stimulant medicine used for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) in children and adolescents 6 to 17 years of age.

## **Pharmacology**

Daytrana (methylphenidate transdermal system) is a mild CNS stimulant by blocking the reuptake of norepinephrine and dopamine into presynaptic neurons. It appears to stimulate the cerebral cortex and subcortical structures similar to amphetamines.

As a transdermal patch, Daytrana has lower first-pass metabolism compared to the oral methylphenidate. Therefore, much lower doses (on a mg/kg basis) of methylphenidate as a transdermal patch can still produce higher blood concentrations compared to oral formulations.

## **Dosing**

The once-a-day Daytrana patch comes in four sizes: 10 mg patch per 9-hour wear, 15 mg patch per 9-hour wear, 20 mg patch per 9-hour wear, and 30 mg patch per 9-hour wear. The suggested starting dose is 10 mg for initial therapy or for patients switching over from other methylphenidate preparations, regardless of dose. Gradual titration may be indicated. Max dosing is 30 mg patch per 9-hour wear.

Apply to the hip two hours before an effect is needed and remove 9 hours after application. Avoid applying it to inflamed or heat exposed skin as this can increase the absorption. Absorption is not affected by perspiration. The patch provides up to 10 hours of efficacy when worn for up to 9 hours, which is the maximum recommended wear time.

## **Application Instructions for Patients**

When applied correctly, the Daytrana patch should stay in place for the full duration of treatment. Exposure to water during bathing, swimming, or showering may affect how well the patch sticks, so be sure to follow the 6 steps below to ensure you apply the patch properly.

1. Carefully cut open the pouch containing the patch, and make sure it is not damaged. The patch should separate easily from the protective liner. Do not use patches that have been cut or damaged in any way. Throw away the patch if the protective liner is hard to remove.
2. Hold the patch with the protective liner facing you—the word "DAYTRANA" will appear backwards because you are looking at the bottom of the patch.
3. Gently bend the patch along the faint line and slowly peel half the liner to expose the sticky surface underneath. Try to avoid touching the sticky part with your fingers. If you do touch it, wash your hands immediately after application.

4. Place the sticky side of the patch firmly on the hip and smooth it down. Make sure the skin is clean, dry, and cool without any powder, lotion, or oil. Alternate the hip on which the patch is worn each day to reduce potential irritation.
5. Gently fold back the other half and slowly peel off the remaining protective liner.
6. Press the entire patch firmly into place and hold for about 30 seconds. This ensures adhesion of the patch to the skin. Go over the edges with your fingers to make sure that it's secure.

NOTE: Wash your hands immediately after applying the patch. Patches should not be reapplied with bandages, tape, or other household adhesives. Also, do not use hair dryers, heating pads, electric blankets, or other heat sources directly on the patch. If you must replace a patch that has fallen off, the total wear time for the first and second patch should not be more than a total of 9 hours in 1 day. Do not reapply the same patch that fell off.

### **Removal Instructions for Patients**

The Daytrana patch can be easily removed in 3 steps.

1. Peel the patch off slowly, then fold the used patch in half so that it sticks to itself.
2. Flush the used patch down the toilet or, if you have a septic tank, dispose of it in a lidded trash receptacle right away.
3. Remove any adhesive residue from the skin by gently rubbing the area with oil or lotion.

NOTE: Any unneeded or expired Daytrana patches should be disposed of properly. Remove patches from their protective pouches, peel off the liners, and fold the sticky sides together. Then flush the patches down the toilet or throw them away in a lidded trash receptacle right away. Wash your hands after you handle the patch. Proper disposal is important since unneeded or expired patches still contain medication that could be harmful to small children or pets if touched or consumed.

### **Side Effects & Considerations**

The most common side effects of Daytrana in children *6 to 12 years old* include: Decreased appetite, trouble sleeping, nausea, vomiting, weight loss, tics, and changes in mood.

The most common side effects of Daytrana in children *13 to 17 years old* include: Decreased appetite, nausea, trouble sleeping, weight loss, dizziness, and stomach pain.

Daytrana may also cause skin problems where it is applied (redness, small bumps, itching). For localized skin reactions (redness at site), use cortisone cream (1-2%). For persistent, severe, or systemic reactions, discontinue the patch.

In June 2015, the FDA added a warning that Daytrana can cause chemical leukoderma, a permanent loss of skin color. These reactions are not harmful but are irreversible and can be disfiguring to patients. Instruct patients to contact their physician if they notice skin color changes; in such cases, an alternative medication should be considered.

## **References**

- Daytrana Website: <https://www.daytrana.com/>
- Up To Date: [https://www.uptodate.com/contents/methylphenidate-drug-information?search=daytrana&source=panel\\_search\\_result&selectedTitle=1%7E115&usage\\_type=panel&kp\\_tab=drug\\_general&display\\_rank=1#F195259](https://www.uptodate.com/contents/methylphenidate-drug-information?search=daytrana&source=panel_search_result&selectedTitle=1%7E115&usage_type=panel&kp_tab=drug_general&display_rank=1#F195259)
- Child Medication Fact Book for Psychiatric Practice, Second Edition, by Carlat Publishing