DESOXYN®
Methamphetamine Hydrochloride Tablets, USP 5 mg only

DESCRIPTION
DESOXYN® (methamphetamine hydrochloride tablets, USP), chemically known as (S)-N,α-dimethylbenzeneethanamine hydrochloride, is a member of the amphetamine group of sympathomimetic amines. It has the following structural formula:

\[
\text{CH}_3 - \text{CH} = \text{NH(CH}_3)\text{Cl} \]

DESOXYN tablets contain 5 mg of methamphetamine hydrochloride for oral administration.

Inactive ingredients:
Corn starch, lactose, sodium benzoate, stearic acid and talc.

CLINICAL PHARMACOLOGY
Methamphetamine is a sympathomimetic amine with CNS stimulant activity. Peripheral actions include elevation of systolic and diastolic blood pressure and weak bronchodilator and respiratory stimulant action. Drug of this class used in obesity is commonly known as "anorectics" or "anorexigenics." It has not been established, however, that the action of such drugs in treating obesity is primarily one of appetite suppression. Other central nervous system actions, or metabolic effects, may be involved, for example.

Adult obese subjects instructed in dietary management and treated with "anorectic" drug, lose more weight on the average than those treated with placebo and diet, as determined in relatively short-term clinical trials. The magnitude of increased weight loss of drug-treated patients over placebo-treated patients is only a fraction of a pound a week. The rate of weight loss is greatest in the first weeks of therapy for both drug and placebo subjects and tends to decrease in succeeding weeks. The origins of the increased weight loss due to the various possible drug effects are not established. The amount of weight loss associated with the use of an "anorectic" drug varies from trial to trial, and the increased weight loss appears to be related in part to variables other than the drug prescribed, such as the physician-investigator, the population treated, and the diet prescribed. Studies do not permit conclusions as to the relative importance of the drug and non-drug factors on weight loss.

The natural history of obesity is measured in years, whereas the studies cited are restricted to a few weeks duration; thus, the total impact of drug-induced weight loss over that of diet alone must be considered clinically limited.

The mechanism of action involved in producing the beneficial behavioral changes seen in hyperactive children including methamphetamine is unknown.

In human, methamphetamine is rapidly absorbed from the gastrointestinal tract. The primary site of metabolism is in the liver by aromatic hydroxylation, N-dealkylation and deamination. At least seven metabolites have been identified in the urine. The biological half-life has been reported in the range of 4 to 5 hours. Excretion occurs primarily in the urine and is dependent on urine pH. Alkaline urine will significantly increase the drug half-life. Approximately 45% of an oral dose is eliminated in the urine within the first 24 hours with about one-third of intact drug and the remainder as metabolites.
INDICATIONS AND USAGE

Attention Deficit Disorder with Hyperactivity: DESOXYN tablets are indicated as an integral part of a total treatment program which typically includes other measures (psychological, educational, social) for a stabilizing effect in children over 4 years of age with a behavioral syndrome characterized by the following group of developmental inappropriates: restlessness, difficulty in sitting still, overactive behavior, short attention span, distractibility, poor academic achievement, emotional lability, and impetuosity. The diagnosis of the syndrome should not be made with finality when these symptoms are only of comparatively recent origin. Stabilizing (i.e., mild-good) signs, learning disability, and abnormal EEG may or may not be present and a diagnosis of central nervous system dysfunction may or may not be warranted. Excessively Obese: a clinical (i.e., a few weeks) adjunct to a regimen of weight reduction based on caloric restriction, for patients in whom obesity is difficultly to alter through diet therapy, e.g., repeated diets, group programs, and other drug therapies. The limited usefulness of DESOXYN tablets (see CLINICAL PHARMACOLOGY) should be weighed against possible side effects associated with this drug, as have been described below.

CONTRAINDICATIONS

DESOXYN tablets are contraindicated during or within 14 days following the administration of monoamine oxidase inhibitors; hypertension cannot occur. It is also contraindicated in patients with glaucoma, advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, a known hypersensitivity or idiosyncrasy to sympathomimetic amines. Methamphetamine should not be given to patients who are in an agitated state or who have a history of drug abuse.

WARNINGS

Inasmuch as the anorectic effect usually develops within a few weeks, when this occurs, the recommended dose should not be exceeded in an attempt to increase this effect further, and the drug should be discontinued (see DRUG ABUSE AND DEPENDENCE).

Serious Cardiovascular Events

Sudden Death and Pre-existing Structural Cardiac Abnormalities or Other Serious Heart Problems:

- Children and Adolescents: Sudden death has been reported in association with CNS stimulant treatment at usual doses in children, and adolescents with structural cardiac abnormalities or other serious heart problems. Although rare, instances of increased pulse or agitation have been associated with stimulant use. Sudden death in children or adolescents with known or structural cardiac abnormalities, cardiomyopathy, or other serious cardiovascular disease, or other serious cardiac problems that may place them at increased vulnerability to the sympathomimetic effects of a stimulant drug.

- Adults: Sudden death, tachycardia, and myocardial infarction have been reported in adults taking stimulant drugs at usual doses for ADHD. Although the role of stimulants in these adult cases is not well defined, adults have a greater likelihood than children of having severe structural cardiac abnormalities, cardiomyopathy, or other serious cardiac problems. Adults with such abnormalities should also generally not be treated with stimulant drugs.

Hypertension and Other Cardiovascular Conditions: Stimulant medications cause a mild increase in average blood pressure (about 1-2 mmHg) and average heart rate (about 3-6 bpm), and individuals may have larger increases. While the mean changes are not expected to have short-term consequences, all patients should be monitored for larger changes in heart rate and blood pressure. Great care is indicated in treating patients whose underlying medical conditions might be complicated by increases in blood pressure or heart rate, e.g., those with pre-existing hypertension, heart disease, recent myocardial infarction, or uncontrolled hyperthyroidism.

Assessing Cardiovascular Status in Patients being Treated with Stimulant Medications: Children, adolescents, or adults who are being considered for treatment with stimulant medications should have a careful history (including a review of the family history of cardiac disease, or pre-existing cardiovascular disease) and physical exam to assess the presence of cardiac disease, and should include further cardiac evaluation if findings suggest such disease (e.g., electrocardiogram and echocardiogram). Patients who develop symptoms such as exertional chest pain, unexplained syncope, or other symptoms suggestive of cardiac disease during stimulant treatment should undergo a prompt cardiac evaluation.

Psychiatric Adverse Events

Pre-existing Psychosis:

Adverse reaction to stimulants may exacerbate symptoms of behavior disturbance and thought disorder in patients with a pre-existing psychotic disorder.

Bipolar Illness:

Psychotic reactions may occur in patients with unipolar or bipolar disorder on stimulant treatment. If symptoms of a manic episode or psychotic illness occur, the drug should be discontinued (see INDICATIONS AND USAGE).
depressive symptoms should be adequately screened to determine if they are due to bipolar disorder, such screening should include a detailed psychiatric history, including a family history of suicide, bipolar disorder, and depression.

Emergence of New Psychotic or Manic Symptoms: Treatment emergent psychotic or manic symptoms, e.g., hallucinations, delusional thinking, or mania in children and adolescents without a prior history of psychiatric illness or manic episodes can be caused by stimulants at usual doses. If such symptoms occur, consideration should be given to a possible causal role of the stimulant and discontinuation of treatment may be appropriate. In a pooled analysis of multiple short-term, placebo-controlled trials, such symptoms occurred in about 0.1% (4 patients with events out of 3482 exposed to methylphenidate or amphetamine for several weeks at usual doses) of stimulant-treated patients compared to 0 in placebo-treated patients.

Aggression: Aggressive behavior or hostility is often observed in children and adolescents with ADHD and has been reported in clinical trials and the postmarketing experience of some medications indicated for the treatment of ADHD. Although there is no systematic evidence that stimulants cause aggressive behavior or hostility, patients beginning treatment for ADHD should be monitored for the appearance of or worsening of aggressive behavior or hostility.

Long-Term Suppression of Growth Careful follow-up of weight and height in children ages 7 to 10 years who were randomized to either methylphenidate or non-medication treatment groups at age 14 months, as well as in naturalistic subgroups of newly methylphenidate-treated and non-medication-treated children over 14 months (to the age of 10 to 13 years) suggests that consistently medicated children (i.e., treatment for 7 days per week throughout the year) have a temporary slowing in growth rate (on average, a total of about 2 cm less growth in height and 2.7 kg less growth in weight over 3 years) without evidence of growth rebound during this period of development. Published data are inadequate to determine whether chronic use of methylphenidate may cause a similar suppression of growth. In general, it is anticipated that they likely have this effect as well. Therefore, growth should be monitored during treatment with stimulants, and patients who are not growing or gaining height or weight as expected may need to have their treatment interrupted.

Seizures There is some clinical evidence that stimulants may lower the convulsive threshold in patients with prior history of seizures, in patients with seizure EEG abnormalities in absence of seizures, and, very rarely, in patients without a history of seizures and no prior EEG evidence of seizures. In the presence of seizures, the drug should be discontinued.

Visual Disturbance Difficulties with accommodation and blurring of vision have been reported with stimulant treatment.

PRECAUTIONS General: DESOXYN tablets should be used with caution in patients with even mild hypertension. Methamphetamine should not be used to combat fatigue or to replace rest in normal persons. Prescribing and dispensing of methamphetamine should be limited to the smallest amount that is feasible at one time in order to minimize the possibility of overdose.

Information for Patients: The patient should be informed that methamphetamine may impair the ability to engage in potentially hazardous activities, such as operating machinery or driving a motor vehicle. The patient should be cautioned not to increase dosage, except on advice of the physician. Prescribers or other health professionals should inform patients, their families, and their caregivers about the benefits and risks associated with treatment with methamphetamine and should counsel them if it is appropriate to. A patient Medication Guide is available for DESOXYN. The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have. The complete text of the Medication Guide is available at www.esa.com.

Drug Interactions: Sodium requirements in diabetes mellitus may be altered in association with the use of methamphetamine and the concomitant diuretic therapy.

Methamphetamine may decrease the hypoglycemic effect of insulin.

DESOXYN should not be used concurrently with monoamine oxidase inhibitors (see CONTRAINDICATIONS). Concurrent administration of tricyclic antidepressants and indirect-acting sympathomimetic amines such as the amphetamines should be closely supervised and dosage carefully adjusted.

Phenothiazines are reported in the literature to antagonize the CNS stimulant action of the amphetamines.
Drug/Laboratory Test Interactions: Literature reports suggest that amphetamines may be associated with significant elevation of plasma corticosteroids. This should be considered if determination of plasma corticosteroid levels is desired in a person receiving amphetamines.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Data are not available on long-term potential for carcinogenicity, mutagenicity, or impairment of fertility.

Pregnancy
Teratogenic effects: Pregnancy Category C. Methamphetamine has been shown to have teratogenic and embryocidal effects in mammals given high multiples of the human dose. There are no adequate and well-controlled studies in pregnant women. DESOXYN tablets should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus.

Nonteratogenic effects: Infants born to mothers dependent on amphetamines have an increased risk of premature delivery and low birth weight. Also, infants may experience symptoms of withdrawal demonstrated by dysphoria, including agitation and significant lassitude.

Usage in Nursing Mothers: Amphetamines are excreted in human milk. Therefore taking amphetamines should be advised to refrain from nursing.

Pediatric Use: Safety and effectiveness for use as an anorectic agent in children below the age of 12 years have not been established. Long-term effects of methamphetamine in children have not been studied (see WARNINGS).

Drug treatment is not indicated in all cases of the behavioral syndrome characterized by hyperactivity and other symptoms, such as oppositional defiant disorder. The behavior may respond to treatment with stimulant drugs but the response is not always consistent and is not usually dramatic.

Amphetamines have been reported to exacerbate motor and phonic tics and Tourette's syndrome. Therefore, clinical evaluation for tic and Tourette's syndrome in children and their families should precede use of stimulant medications.

Geriatric Use: Clinical studies of DESOXYN did not include sufficient numbers of subjects age 65 years and over to determine whether these elderly subjects respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy observed in this population.

ADVERSE REACTIONS
The following are adverse reactions in decreasing order of severity within each category that have been reported:

Cardiovascular: Elevation of blood pressure, tachycardia and palpitation. Fatal cardiorespiratory arrest has been reported, mostly in the context of abuse/misuse.

Central Nervous System: Psychotic episodes have been rarely reported at recommended doses. Dizziness, dysphoria, overstimulation, euphoria, insomnia, tremor, restlessness and headache. Exacerbation of motor and phonic tics and Tourette's syndrome.

Gastrointestinal: Diarrhea, constipation, nausea, anorexia, and other gastrointestinal disturbances.

Hypersensitivity: Urticaria.

Endocrine: Impotence and changes in libido.

Miscellaneous: Pseudoparous goiter has been reported with the long-term use of stimulants in children (see WARNINGS).

DRUG ABUSE AND DEPENDENCE
Controlled Substance: DESOXYN tablets are subject to control under DEA schedule II.

Abuse: Methamphetamine has been extensively abused. Seizures, extreme psychical dependence, and severe social disability have occurred. There are reports of patients who have increased the dosage to many times that recommended. Attempted suicide following high dosage administration with an overdose fatalities and mental depression; changes are also noted on the EEG. Manifestations of chronic intoxication with methamphetamine include severe dermatoses, marked insomnia, instability, hypersensitivity, and personality change. The most severe manifestation of chronic intoxication is psychosis often clinically indistinguishable from schizophrenia. Abuse under misuses of methamphetamine have included death. Fatal cardiac arrhythmia has been reported in the context of abuse and misuse of methamphetamine.

OVERDOSAGE
Manifestations of acute overdosage with methamphetamine include restlessness, tremor, hyperreflexia, vivid imagery, confusion, hallucinations, panic states, hyperthermia, and the delirium syndrome. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include hypotension, hypertension, or tachycardia, and coronary artery constriction. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Consult with a Certified Poison Control Center regarding treatment for up to date guidance and advice. Management of acute methamphetamine intoxication is largely symptomatic and includes gastric evacuation, administration of activated charcoal, and sedation. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

Acidification of urine increases methamphetamine excretion, but it is believed to increase the risk of acute renal failure if myoglobinuria is present. Intravenous phentolamine (Regitine®) has been suggested for possible acute, severe hypertension, if this complicates methamphetamine overdosage. Usually a gradual drop in blood pressure will result when sufficient sedation has been achieved. Chlorpromazine has been reported to be useful in decreasing CNS stimulation and sympathomimetic effects.

DOSAGE AND ADMINISTRATION
DESOXYN tablets are given orally.
Methamphetamine should be administered at the lowest effective dosage, and dosage should be individually adjusted. Late evening medication should be avoided because of the resulting insomnia.

Attention Deficit Disorder with Hyperactivity: For treatment of children 6 years or older with a behavioral syndrome characterized by moderate to severe distractibility, short attention span, hyperactivity, emotional lability and impulsivity: an initial dose of 5 mg DESOXYN once or twice a day is recommended. Daily dosage may be raised in increments of 5 mg at weekly intervals until an optimum clinical response is achieved. The usual effective dose is 20 to 25 mg daily. The total daily dose may be given in two divided doses daily.

When possible, drug administration should be interrupted occasionally to determine if there is a recurrence of behavioral symptoms sufficient to require continued therapy.

For Obesity: One 5 mg tablet should be taken one-half hour before each meal. Treatment should not exceed a few weeks in duration. Methamphetamine is not recommended for use as an anorectic agent in children under 12 years of age.

HOW SUPPLIED
DESOXYN (methamphetamine hydrochloride tablets, USP) is supplied as white tablets imprinted with the letters OV on one side and the number 12 on the opposite side, containing 5 mg methamphetamine hydrochloride in bottles of 100 (NDC 07386-102-01).

Recommended Storage: Store below 86°F (30°C).
Dispense in a USP tight, light-resistant container.
Manufactured by:
Abbott Pharmaceuticals PR Ltd.
Barceloneta, PR 00617
For:
Deerfield, IL 60015, U.S.A.
Revised: March 2007
® Trademark of Ovation Pharmaceuticals, Inc.
03-5554
MEDICATION GUIDE

DESOXYN®
(Pronounced Dé-sŏks-ĭn)
(methamphetamine hydrochloride tablets, USP)

Read the Medication Guide that comes with DESOXYN® before you or your child starts taking it and each time you get a refill. There may be new information. This Medication Guide does not take the place of talking to your or your child’s doctor about your or your child’s treatment with DESOXYN.

What is the most important information I should know about DESOXYN? The following have been reported with use of methamphetamine hydrochloride and other stimulant medicines.

1. Heart-related problems:
   - sudden death in patients who have heart problems or heart defects
   - stroke and heart attack in adults
   - increased blood pressure and heart rate

Tell your or your child’s doctor if you or your child have any heart problems, heart defects, high blood pressure, or a family history of these problems. Your or your child’s doctor should check you or your child carefully for heart problems before starting DESOXYN.

Your or your child’s doctor should check you or your child’s blood pressure and heart rate regularly during treatment with DESOXYN.

Call your or your child’s doctor right away if you or your child has any signs of heart problems such as chest pain, shortness of breath, or fainting while taking DESOXYN.

2. Mental (Psychiatric) problems:
   - new or worse behavior and thought problems
   - new or worse bipolar illness
   - new or worse aggressive behavior or hostility

Children and Teenagers
   - new psychotic symptoms (such as hearing voices, believing things that are not true, are suspicious) or new manic symptoms

Tell your or your child’s doctor about any mental problems you or your child have, or about a family history of suicide, bipolar illness, or depression.

Call your or your child’s doctor right away if you or your child have any new or worsening mental symptoms or problems while taking DESOXYN, especially seeing or hearing things that are not real, believing things that are not real, or are suspicious.

What is DESOXYN?
DESOXYN is a central nervous system stimulant prescription medicine. It is used for the treatment of Attention-Deficit Hyperactivity Disorder; (ADHD). DESOXYN may help increase attention and decrease impulsiveness and hyperactivity in patients with ADHD. DESOXYN should be used as a part of a total treatment program for ADHD that may include counseling or other therapies. DESOXYN is also used short-term, along with a low calorie diet, for weight loss in obese patients who have not been able to lose weight on other therapies.

DESOXYN is a federally controlled substance (CII) because it can be abused or lead to dependence. Keep DESOXYN in a safe place to prevent misuse and abuse. Selling or giving away DESOXYN may harm others, and is against the law. Tell your or your child’s doctor if you or your child have (or have a family history of) ever abused or been dependent on alcohol, prescription medicines or street drugs.

Who should not take DESOXYN?
DESOXYN should not be taken if you or your child:

- have heart disease or hardening of the arteries
- have moderate to severe high blood pressure
- have hyperthyroidism
- have an eye problem called glaucoma
- are agitated
- have a history of drug abuse
- are taking or have taken within the past 14 days an antidepressation medicine called a monoamine oxidase inhibitor or MAOI.
- are sensitive to, allergic to, or had a reaction to other stimulant medicines

DESOXYN is not recommended for use in children less than 6 years old in the treatment of ADHD.

DESOXYN may not be right for you or your child. Before starting DESOXYN tell your or your child’s doctor about all health conditions (or a family history of) including:

- heart problems, heart defects, high blood pressure
- mental problems including psychosis, mania, bipolar illness, or depression
- tics or Tourette’s syndrome
- thyroid problems
- diabetes
- seizures or have had an abnormal brain wave test (EEG)

Tell your or your child’s doctor if you or your child is pregnant, planning to become pregnant, or breastfeeding.

Can DESOXYN be taken with other medicines?
Tell your or your child’s doctor about all of the medicines that you or your child take including prescription and nonprescription medicines, vitamins, and herbal supplements.
DESOXYN and some medicines may interact with each other and cause serious side effects. Sometimes the doses of other medicines will need to be adjusted while taking DESOXYN. Your or your child’s doctor will decide whether DESOXYN can be taken with other medicines.

(over)
Especially tell your or your child’s doctor if you or your child takes:
- anti-depression medicines including MAOIs
- anti-psychotic medicines
- blood pressure medicines
- insulin
- seizure medicines

Know the medicines that you or your child takes. Keep a list of your medicines with you to show your doctor and pharmacist.

Do not start any new medicine while taking DESOXYN® without talking to your or your child’s doctor first.

How should DESOXYN be taken?
- Take DESOXYN exactly as prescribed. Your or your child’s doctor may adjust the dose until it is right for you or your child.
- DESOXYN is usually taken 1 or 2 times each day.
- From time to time, your or your child’s doctor may stop DESOXYN treatment for a while to check ADHD symptoms.
- Your or your child’s doctor may do regular checks of the blood, heart, and blood pressure while taking DESOXYN. Children should have their height and weight checked often while taking DESOXYN. DESOXYN treatment may be stopped if a problem is found during these check-ups.
- If you or your child takes too much DESOXYN or overdoses, call your or your child’s doctor or poison control center right away, or get emergency treatment.

What are possible side effects of DESOXYN?
See “What is the most important information I should know about DESOXYN?” for information on reported heart and mental problems.

Other serious side effects include:
- slowing of growth (height and weight) in children
- seizures, mainly in patients with a history of seizures
- eyesight changes or blurred vision

Common side effects include:
- fast heart beat
- tremors
- trouble sleeping
- stomach upset
- dry mouth
- decreased appetite
- headache
- dizziness
- weight loss

DESOXYN may affect your or your child’s ability to drive or do other dangerous activities.
Talk to your or your child’s doctor if you or your child has side effects that are bothersome or do not go away.
This is not a complete list of possible side effects. Ask your or your child’s doctor or pharmacist for more information.

How should I store DESOXYN?
- Store DESOXYN in a safe place below 86°F (30°C). Protect from light.
- Keep DESOXYN and all medicines out of the reach of children.
General information about DESOXYN
Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use DESOXYN for a condition for which it was not prescribed. Do not give DESOXYN to other people, even if they have the same condition. It may harm them and it is against the law.
This Medication Guide summarizes the most important information about DESOXYN. If you would like more information, talk with your or your child's doctor. You can ask your or your child's doctor or pharmacist for information about DESOXYN that was written for healthcare professionals.
For more information about DESOXYN, contact OVATION Pharmaceuticals at 1-888-514-5204 or visit www.ovationpharma.com.

What are the ingredients in DESOXYN?
Active Ingredient: methamphetamine hydrochloride
Inactive Ingredients: Corn starch, lactose, sodium paraminobenzoate, stearic acid and talc

This Medication Guide has been approved by the U.S. Food and Drug Administration.