

**DIETHYLPROPION HYDROCHLORIDE ER- diethylpropion hydrochloride  
er tablet, extended release  
Directrx**

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**DIETHYLPROPION HYDROCHLORIDE**

Diethylpropion Hydrochloride Extended Release Tablets, 75 mg are available for oral administration as extended release tablets containing 75 mg diethylpropion hydrochloride, USP. The inactive ingredients in each extended release tablet are: mannitol, carbomer homopolymer, tartaric acid, hydroxypropyl methylcellulose, povidone, and magnesium stearate.

Diethylpropion hydrochloride is a sympathomimetic agent. The chemical name for diethylpropion hydrochloride is 1-phenyl-2-diethyl-amino-1-propanone hydrochloride.

Its chemical structure is:

[molecular structure]

In diethylpropion hydrochloride extended release tablets, 75 mg, diethylpropion hydrochloride is dispersed in a hydrophilic matrix. On exposure to water, the diethylpropion hydrochloride is released at a relatively uniform rate as a result of slow hydration of the matrix. The result is controlled release of the anorectic agent.

Diethylpropion hydrochloride is a sympathomimetic amine with some pharmacologic activity similar to that of the prototype drugs of this class used in obesity, the amphetamines. Actions include some central nervous system stimulation and elevation of blood pressure. Tolerance has been demonstrated with all drugs of this class in which these phenomena have been looked for.

Drugs of this class used in obesity are 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. For example, other central nervous system actions or metabolic effects may be involved.

Adult obese subjects instructed in dietary management and treated with "anorectic" drugs 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 averages some fraction of a pound a week. However, individual weight loss may vary substantially from patient to patient. 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 possible origins of the increased weight loss due to the various 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 relationship, 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 most studies cited are restricted to a few weeks duration; thus, the total impact of drug-induced weight loss

over that of diet alone is unknown.

Diethylpropion is rapidly absorbed from the GI tract after oral administration and is extensively metabolized through a complex pathway of biotransformation involving N-dealkylation and reduction. Many of these metabolites are biologically active and may participate in the therapeutic action of diethylpropion hydrochloride extended release tablets, 75 mg. Due to the varying lipid solubilities of these metabolites, their circulating levels are affected by urinary pH. Diethylpropion and/or its active metabolites are believed to cross the blood-brain barrier and the placenta.

Diethylpropion and its metabolites are excreted mainly by the kidney. It has been reported that between 75-106% of the dose is recovered in the urine within 48 hours after dosing. Using a phosphorescence assay that is specific for basic compounds containing benzoyl group, the plasma half-life of the aminoketone metabolites is estimated to be between 4 to 6 hours.

The controlled-release characteristics of diethylpropion hydrochloride extended release tablets, 75 mg have been demonstrated by studies in humans in which plasma levels of diethylpropion-related materials were measured by phosphorescence analysis. Plasma levels obtained with the diethylpropion hydrochloride extended release tablets, 75 mg formulation administered once daily indicated a more gradual release than the immediate-release formulation (three 25 mg tablets given in a single dose).

Diethylpropion hydrochloride extended release tablets, 75 mg have not been shown superior in effectiveness to the same dosage of the immediate-release formulation (one 25 mg tablet three times daily). After administration of a single dose of diethylpropion hydrochloride extended release tablets, 75 mg (one 75 mg extended release tablet) or diethylpropion hydrochloride solution (75 mg dose) in a cross-over study using normal human subjects, the amount of parent compound and its active metabolites recovered in the urine within 48 hours for the two dosage forms were not statistically different.

Diethylpropion hydrochloride extended release tablets, 75 mg are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction in patients with an initial body mass index (BMI) of 30 kg/m<sup>2</sup> or higher and who have not responded to appropriate weight reducing regimen (diet and/or exercise) alone. Below is a chart of BMI based on various heights and weights. BMI is calculated by taking the patient's weight, in kilograms (kg), divided by the patient's height, in meters (m), squared. Metric conversions are as follows: pounds divided by 2.2 = kg; inches x 0.0254 = meters.

Body Mass Index (BMI), kg/m<sup>2</sup>

Weight  
(pounds)

Height (feet, inches)

5'0"

5'3"

5'6"

5'9"

6'0"

6'3"

140

27

25

23

21

19

18

150

29

27

24

22

20

19

160

31

28

26

24

22

20

170

33

30

28

25

23

21

180

35

32

29

27  
25  
23  
190  
37  
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31  
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26  
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200  
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210  
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29  
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43  
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36  
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30  
28  
230  
45

41  
37  
34  
31  
29  
240  
47  
43  
39  
36  
33  
30  
250  
49  
44  
40  
37  
34  
31

The usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below. Diethylpropion hydrochloride extended release tablets, 75 mg are indicated for use as monotherapy only.

Pulmonary hypertension, advanced arteriosclerosis, hyperthyroidism, known hypersensitivity or idiosyncrasy to the sympathomimetic amines, glaucoma, severe hypertension (See PRECAUTIONS).

Agitated states.

Patients with a history of drug abuse.

Use in combination with other anorectic agents is contraindicated.

During or within 14 days following the administration of monoamine oxidase inhibitors, hypertensive crises may result.

Diethylpropion hydrochloride extended release tablets, 75 mg should not be used in combination with other anorectic agents, including prescribed drugs, over-the-counter preparations, and herbal products.

In a case-control epidemiological study, the use of anorectic agents, including diethylpropion, was associated with an increased risk of developing pulmonary

hypertension, a rare, but often fatal disorder. The use of anorectic agents for longer than 3 months was associated with a 23-fold increase in the risk of developing pulmonary hypertension. Increased risk of pulmonary hypertension with repeated courses of therapy cannot be excluded.

The onset or aggravation of exertional dyspnea, or unexplained symptoms of angina pectoris, syncope, or lower extremity edema suggest the possibility of occurrence of pulmonary hypertension. Under these circumstances, diethylpropion hydrochloride extended release tablets, 75 mg should be immediately discontinued, and the patient should be evaluated for the possible presence of pulmonary hypertension.

Valvular heart disease associated with the use of some anorectic agents such as fenfluramine and dexfenfluramine has been reported. Possible contributing factors include use for extended periods of time, higher than recommended dose, and/or use in combination with other anorectic drugs. Valvulopathy has been very rarely reported with diethylpropion hydrochloride extended release tablets, 75 mg monotherapy, but the causal relationship remains uncertain. The potential risk of possible serious adverse effects such as valvular heart disease and pulmonary hypertension should be assessed carefully against the potential benefit of weight loss. Baseline cardiac evaluation should be considered to detect preexisting valvular heart diseases or pulmonary hypertension prior to initiation of diethylpropion hydrochloride extended release tablets, 75 mg treatment. Diethylpropion hydrochloride extended release tablets, 75 mg are not recommended in patients with known heart murmur or valvular heart disease. Echocardiogram during and after treatment could be useful for detecting any valvular disorders which may occur.

To limit unwarranted exposure and risks, treatment with diethylpropion hydrochloride extended release tablets, 75 mg should be continued only if the patient has satisfactory weight loss within the first 4 weeks of treatment (e.g., weight loss of at least 4 pounds, or as determined by the physician and patient).

Diethylpropion hydrochloride extended release tablets, 75 mg are not recommended for patients who used any anorectic agents within the prior year.

If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Diethylpropion hydrochloride extended release tablets, 75 mg may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Prolonged use of diethylpropion hydrochloride may induce dependence with withdrawal syndrome on cessation of therapy. Hallucinations have occurred rarely following high doses of the drug. Several cases of toxic psychosis have been reported following the excessive use of the drug and some have been reported in which the recommended dose appears not to have been exceeded. Psychosis abated after the drug was discontinued. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol.

## General

Caution is to be exercised in prescribing diethylpropion hydrochloride extended release tablets, 75 mg for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Diethylpropion hydrochloride extended release tablets, 75 mg should not be administered to patients with severe hypertension.

Reports suggest that diethylpropion hydrochloride may increase convulsions in some epileptics. Therefore, epileptics receiving diethylpropion hydrochloride extended release tablets, 75 mg should be carefully monitored. Titration of dose or discontinuance of diethylpropion hydrochloride extended release tablets, 75 mg may be necessary.

The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

#### Information for Patient

The patient should be cautioned about concomitant use of alcohol or other CNS-active drugs and diethylpropion hydrochloride extended release tablets, 75 mg (See WARNINGS). The patient should be advised to observe caution when driving or engaging in any potentially hazardous activity.

#### Laboratory Tests

None

#### Drug Interactions

Because diethylpropion hydrochloride extended release tablets, 75 mg are monoamines, hypertension may result when either agent is used with monoamine oxidase (MAO) inhibitors (See CONTRAINDICATIONS).

Efficacy of diethylpropion with other anorectic agents has not been studied and the combined use may have the potential for serious cardiac problems; therefore, the concomitant use with other anorectic agents is contraindicated.

Antidiabetic drug requirements (i.e., insulin) may be altered. Concurrent use with general anesthetics may result in arrhythmias. The pressor effects of diethylpropion and those of other drugs may be additive when the drugs are used concomitantly; conversely, diethylpropion may interfere with antihypertensive drugs (i.e., guanethidine,  $\alpha$ -methyldopa). Concurrent use of phenothiazines may antagonize the anorectic effect of diethylpropion.

#### Carcinogenesis, Mutagenesis, and Impairment of Fertility

No long-term animal studies have been done to evaluate diethylpropion hydrochloride for carcinogenicity. Mutagenicity studies have not been conducted. Animal reproduction studies have revealed no evidence of impairment of fertility (See PREGNANCY).

#### Pregnancy

Teratogenic Effects: Pregnancy Category B. Reproduction studies have been performed in rats at doses up to 1.6 times the human dose (based on mg/m<sup>2</sup>) and have revealed no evidence of impaired fertility or harm to the fetus due to diethylpropion hydrochloride. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed. Spontaneous reports of congenital malformations have been recorded in humans, but no causal relationship to diethylpropion has been established.

Non-Teratogenic Effects. Abuse with diethylpropion hydrochloride during pregnancy may result in withdrawal symptoms in the human neonate.

#### Nursing Mothers

Since diethylpropion hydrochloride and/or its metabolites have been shown to be excreted in human milk, caution should be exercised when diethylpropion hydrochloride extended release tablets, 75 mg are administered to a nursing woman.

### Geriatric Use

Clinical studies of diethylpropion hydrochloride extended release tablets, 75 mg did not include sufficient numbers of subjects aged 65 and over to determine whether they 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.

This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

### Pediatric Use

Since safety and effectiveness in pediatric patients below the age of 16 have not been established, diethylpropion hydrochloride extended release tablets, 75 mg is not recommended for use in pediatric patients 16 years of age and under.

**Cardiovascular:** Precordial pain, arrhythmia (including ventricular), ECG changes, tachycardia, elevation of blood pressure, palpitation and rare reports of pulmonary hypertension. Valvular heart disease associated with the use of some anorectic agents such as fenfluramine and dexfenfluramine, both independently and especially when used in combination, have been reported. Valvulopathy has been very rarely reported with diethylpropion hydrochloride extended release tablets, 75 mg monotherapy, but the causal relationship remains uncertain.

**Central Nervous System:** In a few epileptics an increase in convulsive episodes has been reported; rarely psychotic episodes at recommended doses; dyskinesia, blurred vision, overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, mydriasis, drowsiness, malaise, headache, and cerebrovascular accident

**Gastrointestinal:** Vomiting, diarrhea, abdominal discomfort, dryness of the mouth, unpleasant taste, nausea, constipation, other gastrointestinal disturbances

**Allergic:** Urticaria, rash, ecchymosis, erythema

**Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset

**Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia

**Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dysuria, dyspnea, hair loss, muscle pain, increased sweating, and polyuria.

Diethylpropion hydrochloride extended release tablets, 75 mg are schedule IV controlled substances. Diethylpropion hydrochloride has some chemical and pharmacologic



similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states, and mydriasis. Fatigue and depression usually follow the central stimulation.

Cardiovascular effects include tachycardia, arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in convulsions, coma and death.

The reported oral LD<sub>50</sub> for mice is 600 mg/kg, for rats is 250 mg/kg and for dogs is 225 mg/kg.

Management of acute diethylpropion hydrochloride intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates diethylpropion hydrochloride extended release tablets, 75 mg overdosage.

Diethylpropion Hydrochloride Extended Release Tablets, 75 mg:

One extended-release 75 mg tablet daily, swallowed whole, in midmorning.

Geriatric use:

This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function (See PRECAUTIONS, GERIATRIC USE).

Diethylpropion Hydrochloride Extended Release Tablets, 75 mg are supplied in bottles of 100 (NDC 0527-1477-01) and 250 (0527-1477-25).

Each white to off-white capsule-shaped tablet is debossed "LCI" on one side and "1477" on the other side.

Store at 20 to 25°C (68 to 77°F) [See USP Controlled Room Temperature].

Keep tightly closed and protect from excessive heat.

Distributed by:

Lannett Company, Inc.  
Philadelphia, PA 19136

CIB70603D

Rev. 12/19



## DIETHYLPROPION HYDROCHLORIDE ER

diethylpropion hydrochloride er tablet, extended release

### Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:72189-307(NDC:0527-1477)
<b>Route of Administration</b>	ORAL	<b>DEA Schedule</b>	CIV

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
<b>DIETHYLPROPION HYDROCHLORIDE</b> (UNII: 19V2PL39NG) (DIETHYLPROPION - UNII:Q94YYU22B8)	DIETHYLPROPION HYDROCHLORIDE	75 mg

### Inactive Ingredients

Ingredient Name	Strength
<b>MANNITOL</b> (UNII: 3OWL53L36A)	
<b>HYPROMELLOSE ACETATE SUCCINATE 06081224 (3 MM2/S)</b> (UNII: 6N003M473W)	
<b>POVIDONE K30</b> (UNII: U725QWY32X)	
<b>CARBOMER HOMOPOLYMER TYPE A</b> (UNII: F68VH75CJC)	
<b>MAGNESIUM STEARATE</b> (UNII: 70097M6I30)	
<b>TARTARIC ACID</b> (UNII: W4888I119H)	

### Product Characteristics

<b>Color</b>	white	<b>Score</b>	no score
<b>Shape</b>	OVAL	<b>Size</b>	19mm
<b>Flavor</b>		<b>Imprint Code</b>	LCI;1477

**Contains**

**Packaging**

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:72189-307-30	30 in 1 BOTTLE; Type 0: Not a Combination Product	12/29/2021	

**Marketing Information**

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA091680	12/29/2021	

**Labeler** - Directrx (079254320)

**Registrant** - Directrx (079254320)

**Establishment**

Name	Address	ID/FEI	Business Operations
Directrx		079254320	repack(72189-307)