



Darifenacin

Updated: July 7, 2017.

OVERVIEW

Introduction

Darifenacin is an anticholinergic and antispasmodic agent used to treat urinary incontinence and overactive bladder syndrome. Darifenacin has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Darifenacin (dar" i fen' a sin) is anticholinergic agent with a degree of selectivity for the M3 subtype of muscarinic acetylcholine receptors which is found predominantly in the smooth muscle of the bladder. Darifenacin increases bladder capacity and decreases bladder contractions and the urgency of urination. Darifenacin was approved for use in the United States in 2004 and indications include urinary urge incontinence and overactive bladder syndrome. Darifenacin is available in extended release tablets of 7.5 and 15 mg under the brand name Enablex. The recommended adult oral dose is 7.5 to 15 mg once daily. Common side effects are those of parasympathetic stimulation and include dryness of the mouth and eyes, decreased sweating, headache, visual blurring, constipation, and urinary retention. Because of its selectivity for the M3 muscarinic receptor, darifenacin is believed to be less likely than other anticholinergic agents to cause central nervous system effects such as restlessness, confusion and hallucinations. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like most anticholinergic agents, darifenacin has not been linked to episodes of liver enzyme elevations or clinically apparent liver injury. Darifenacin is metabolized by CYP 3A4 and 2D6, so that drug-drug interactions may occur. A major reason for its safety may relate to the low daily dose.

References on the safety and potential hepatotoxicity of darifenacin are given in the Overview section on the Anticholinergic Agents.

Drug Class: [Anticholinergic Agents](#)

PRODUCT INFORMATION

REPRESENTATIVE TRADE NAMES

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Darifenacin – Enablex®

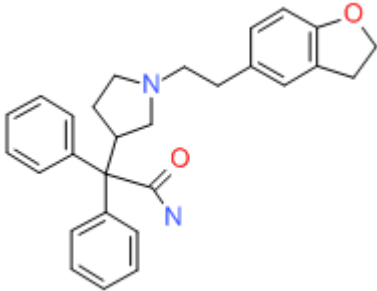
DRUG CLASS

Anticholinergic Agents

COMPLETE LABELING

Product labeling at DailyMed, National Library of Medicine, NIH

CHEMICAL FORMULA AND STRUCTURE

DRUG	CAS REGISTRY NUMBER	MOLECULAR FORMULA	STRUCTURE
Darifenacin	133099-04-4	C ₂₈ H ₃₀ N ₂ O ₂	 The chemical structure of Darifenacin is a complex organic molecule. It features a central carbon atom bonded to two phenyl rings and a nitrogen atom. This nitrogen atom is part of a five-membered ring system that includes another nitrogen atom and a carbonyl group (C=O). The second nitrogen atom in this ring system is connected via a two-carbon chain to a benzene ring, which is further substituted with a five-membered ring containing an oxygen atom.