

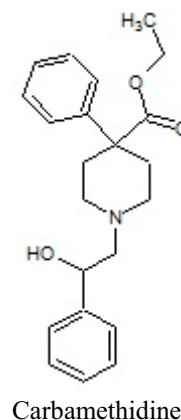
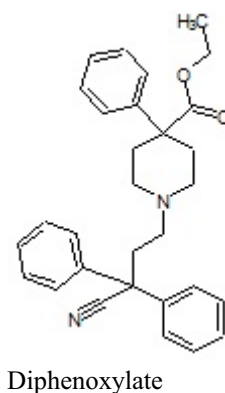
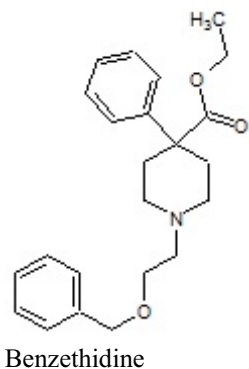
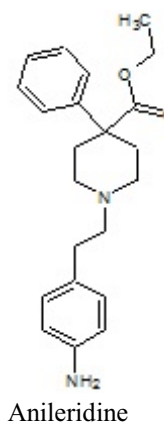
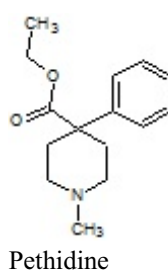
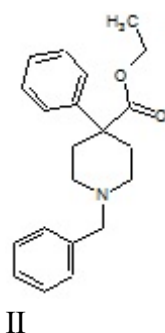
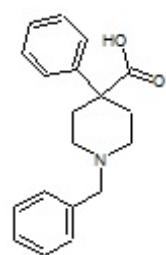
## Drug Status Report

**Drug:** 1-Benzyl-4-phenyl-4-piperidinecarboxylic acid (I)  
1-Benzyl-4-phenyl-4-piperidinecarboxylic acid, ethyl ester (II)

**Drug Name Status:** 1-Benzyl-4-phenyl-4-piperidinecarboxylic acid is the common name  
1-Benzyl-4-phenyl-4-piperidinecarboxylic acid, ethyl ester is the common name.

**Chemical Name:** I - 4-Phenyl-1-(phenylmethyl)-4-piperidinecarboxylic acid  
II- 4-Phenyl-1-(phenylmethyl)-4-piperidinecarboxylic acid, Ethyl ester

### Chemical structure:



**Molecular Formula:** I-  $C_{19}H_{21}NO_2$

II-  $C_{21}H_{25}NO_2$

**Pharmacological class / Application:** fine chemical (pethidine related)

### International status:

US: The substances are not currently listed on the schedules to the US Controlled Substances Act

and are not mentioned on the DEA website. However, as meperidine (pethidine) is listed on Schedule II to the CSA, I and II may be controlled by the CSA under the analogue provision, "...controlled substance analogue means a substance - the chemical structure of which is substantially similar to the chemical structure of a controlled substance in schedule I or II".

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Item 13 of Part I of Schedule VI to the CDSA is, "Piperidine and its salts". I and II are not salts of piperidine and are not included in Part I of Schedule VI.

Item 3 of Schedule I to the CDSA is, "Phenylpiperidines, their intermediates, salts, derivatives and analogues and salts of intermediates, derivatives and analogues". Pethidine (structure above) is subitem 17. Item 3 contains a series of substances that provides guidance for interpreting the scope of "analogues" as used in the title. The structures of anileridine, benzethidine, diphenoxylate and carbamethidine which are subitems 3(4), 3(7), 3(8) and 3(23) respectively are shown above. These structures show the broad range of substituents on the nitrogen of substances that are included in item 3. Although there is no substance currently listed in item 3 that contains an N-benzyl substituent as do I and II, both I and II must be considered to be analogues of the phenylpiperidines as analogue is defined in the CDSA as, "a substance that, in relation to a controlled substance, has a substantially similar chemical structure".

Recommendation: Both 1-Benzyl-4-phenyl-4-piperidinecarboxylic acid (I) and 1-benzyl-4-phenyl-4-piperidinecarboxylic acid, ethyl ester (II) are included in item 3 of Schedule I to the CDSA and are controlled substances.

August 31, 2009