COENZYME Q_{10} (UBIQUINONE-10)

**Date:**
November 22, 2007

**Proper name(s):**
Coenzyme Q_{10}, ubidecarenone, (Sweetman 2007; USP 30; EP 2005)

**Common name(s):**
Coenzyme Q_{10}, CoQ_{10}, ubidecarenone, ubiquinone-10
(Storch et al. 2007; Sweetman 2007; USP 30; Park et al. 2005; O’Neil et al. 2001)

**Source material(s):**
- Bacteria, yeast (i.e. bacterial or yeast fermentation process)
  (Kawamukai 2002; Szkopinska 2000; Yoshida et al. 1998)
- Synthetic (e.g. Solanesol process)
  (Lipshutz et al. 2005; Lipshutz et al. 2002; Zhao et al. 1997)

**Route(s) of administration:** Oral

**Dosage form(s):**
Those pharmaceutical dosage forms suited to oral administration, including but not limited to chewable tablets, caplets, capsules, strips, lozenges, powders or liquids where the dose is measured in drops, teaspoons, or tablespoons are acceptable. This monograph is not intended to include food-like dosage forms such as bars, chewing gums or beverages.

**Use(s) or Purpose(s):**
Statement(s) to the effect of:
- Helps to maintain and/or support cardiovascular health (Rosenfeldt et al. 2007; Baggio et al. 1994; Langsjoen et al. 1988).
- Helps to reduce the frequency of migraine headaches and associated nausea and vomiting when taken as a prophylactic (Hershey et al. 2007; Sandor et al. 2005; Rozen et al. 2002).
- An antioxidant (Kalpravidh et al. 2005; Rosenfeldt et al. 2005; Crane 2001; Chello et al. 1994) for the maintenance of good health.
**Dose(s):**

Antioxidant and cardiovascular health: 30 - 100 mg, 1 - 3 times per day (Bonakdar and Guarneri 2005; Kalpravidh et al. 2005; Rosenfeldt et al. 2005; Chello et al. 1994; Langsjoen 1994; Langsjoen et al. 1988; Tanaka et al. 1982)

Migraine prophylaxis: 75 - 100 mg, 2 - 3 times per day (Sandor et al. 2005; Rozen et al. 2002)

**Duration of use:**

Migraine prophylaxis: Use for a minimum of 3 months to see beneficial effects (Hershey et al. 2007; Sandor et al. 2005; Rozen et al. 2002).

Other uses: No statement required.

**Risk information:** Statement(s) to the effect of:

**Caution(s) and warning(s):**

- Consult a health care practitioner prior to use if you are pregnant or breastfeeding.
- Consult a health care practitioner prior to use if you are taking blood pressure medication (Rosenfeldt et al. 2007; Singh et al. 1999).

Doses > 100 mg per day: Consult a health care practitioner prior to use if you are taking blood thinners (Landbo and Almdal 1998; Spigset 1994; Engelsen et al. 2003).

Migraine prophylaxis: Consult a health care practitioner if migraine frequency increases, and associated nausea and vomiting persist or worsen.

**Contraindication(s):** No statement required.

**Known adverse reaction(s):** No statement required

**Non-medicinal ingredients:** Must be chosen from the current NHPD List of Acceptable Non-medicinal Ingredients and must meet the limitations outlined in the list.
Specifications: Must comply with the minimum specifications outlined in the current NHPD *Compendium of Monographs*.

References cited:


References reviewed:


Bargossi AM, Grossi G, Fiorella PL, Gaddi A, Di Giulio R, Battino M. Exogenous CoQ10 preserves plasma ubiquinone levels in patients treated with 3-hydroxy-3-methylglutaryl

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Langsjoen PH. The clinical use of HMG CoA-reductase inhibitors (statins) and the associated depletion of the essential cofactor coenzyme Q10; a review of pertinent human and animal data. Tyler (TX); 2002. [Accessed 2007-10-23]. Available from:


Watts GF, Playford DA, Croft KD, Ward NC, Mori TA, Burke V. Coenzyme Q10 improves endothelial dysfunction of the brachial artery in Type II diabetes mellitus. Diabetologia 2002;45(3):420-426.


