

April 2006

# Technology Review



## **CAPILLARY REGENERATING TRANS DERMAL SYSTEM AS ANTI-HAIR LOSS TREATMENT**

**HEALTH TECHNOLOGY ASSESSMENT UNIT  
MEDICAL DEVELOPMENT DIVISION  
MINISTRY OF HEALTH**

## **Project Coordinators**

Dr Rusilawati Jaudin  
Principal Assistant Director  
Health Technology Assessment Unit  
Medical Development Division  
Ministry of Health Malaysia

Mr Nor Zawawi Daud  
Medical Assistant  
Health Technology Assessment Unit  
Medical Development Division  
Ministry of Health Malaysia

## 1. BACKGROUND

Hair loss is always a sensitive issue and most men and women find it difficult to discuss the problem. Some hair problems are inherited, many are acquired or contracted. Women's hair loss problem can be caused by stress, lack of sleep, hormone imbalance, post-natal and excessive chemical exposure. A combination of hormone and genetic factors are responsible for male and female pattern hair loss. A typical scalp contains 100,000 to 150,000 hair follicles before any hair loss will occur. 50 percent of all men experience hair loss sometime in their lives. The average growth rate of hair is about one fourth to one and a half inches per month. Over 50% of men by age 50 have male pattern hair loss. 40% of women will have female pattern (hereditary) hair loss by the time they reach menopause.

## 2. OBJECTIVE

This review is to determine the safety and effectiveness of hair care technology, the Capillary Regenerating Transdermal System (CRTS).

## 3. METHODOLOGY

An electronic search using databases like PUBMED, Ovid, Google and ECRI was carried out. Reports on relating issues from the AHFMR, BCOHTA, CaHTIU, CCOHTA, ICES, IWH, MUHC and FDA sites were also searched. The following keywords: *capillary regenerative transdermal system, hair loss treatment, hair loss management* and *alopecia* were used either singly or in combination.

## 4. TECHNICAL FEATURES

Capillary Regenerating Trans-Dermal System provides follicular stimulation which promotes hair growth. It stimulates the arterial, venous and lymphatic microcirculation of the scalp. The treatment of CRTS is rather simple i.e:

- No Surgery
- No Chemical
- No Herbs
- No Dugs
- No Tonic

As of date, CRTS has recorded:

- 1 – 3 month Visibly Stronger roots
- 3 – 6 month thicker hair, stronger root and glossier look

- 6 – 12 month a full set of strong healthy hair

The range of CRTS capillary treatment apparatus comprises two complementary devices, the first of which is the CRTS-1, destined for the in-surgery treatment of patient by capillary-care professionals. The second is the Mini CRTS-1 designed for personal use by those patients who want to accelerate and intensify their treatment, and as a complement to or for improving professional treatment.

CRTS-1 Professional Capillary Regenerating Trans-dermal System produces low-voltage sinusoidal electrical currents, which stimulate capillary regeneration through a range of treatment using three 18 ct gold electrodes, applied at three preset treatment levels. CRTS-1 treatment intensity can be adjusted simply by varying the intensity of the applied current, according to the patient scalp sensitivity and the various zones to be treated. Two 10-15 minutes treatment session per week improve both the quality of the patient's hair and its growth, and will provide follicular-stimulation. A one-day training session should suffice for practitioner to learn how to master the apparatus. The CRTS-1 apparently does produce positive result in cases where the follicular hair system has been irreversibly destroyed.

## **5. RESULT AND CONCLUSION**

No published articles on the safety and effectiveness of the Capillary Regenerating Trans-Dermal System (CRTS) as an effective anti-hair loss treatment were found from the search strategy stated above. Hence, as of date of review, it can be inferred that there is no evidence on its effectiveness as anti hair loss treatment and cannot be recommended for its use.