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7505.

(continued from page 10)—Influence on the effectiveness of coughing:

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ABSTRACTS

Gault, W. R. & Gatens, P. F.: Use of Low Intensity Direct Current in Management of Ischemic Skin Ulcers. *Physical Therapy* 56 (3): 265-269, March 1976.

A clinical investigation of the use of low intensity direct current (LIDC) in treating ischemic skin ulcers was conducted at the University of Missouri. The purpose of the study was to evaluate the effect of LIDC on altering the healing rate of ischemic skin ulcers. One hundred ulcers were treated with LIDC. Six of the patients had bilateral symmetrical ulcers which provided the control group. The six control ulcers were managed exactly the same as their counterpart except that LIDC was omitted. The mean healing ratio of the control ulcers was 14,7 per cent per week compared to 30 per cent per week of the treated counterpart. The mean healing rate of the 100 ischemic skin ulcers treated with LIDC was 28,4 per cent per week. The data indicated that ischemic skin ulcers treated with the current responded with a healing rate approximately twice as fast as those ulcers that did not receive LIDC treatment. The authors concluded that the use of LIDC added an effective modality to the armamentarium of the physical therapist for the treatment of ischemic skin ulcers.

Authors' Summary.

Weisberg, J.: Influence of icing and brushing on the Achilles' tendon reflex in adult human subjects. *Physiotherapy Canada* 28 (1): 21-23, March 1976.

The technique of icing and brushing the skin overlying a muscle group, as originally developed by Margaret Rood, was used over the gastrocnemius in this study, to determine whether an alteration in amplitude of the Achilles' tendon reflex is produced.

Two groups of healthy adult human subjects aged between 14 and 40 years — an experimental group (16 subjects) and a control group (15 subjects) — were tested. Both legs of each subject in the test group were stimulated, after one side was "treated" for 20-25 seconds with brushing and then for 5-10 seconds with icing. The subsequent foot displacement was measured with a photoelectric device, and the amplitude of the free Achilles' tendon reflex was recorded on an electrocardiogram.

The results of the study showed a mean increase in amplitude of the Achilles' tendon reflex of 40% on the "treated" side (10% on the "untreated" side) in the experimental group. The author therefore concludes that icing and brushing over the muscle does bias the muscle spindle, enhancing muscular contraction.

J.M.

Zimnicki, B. A. & Fernie, G. R.: Biofeedback and the lower extremity amputee: a new training aid. *Physiotherapy Canada* 28 (2): 79-82, May 1976.

A simple biofeedback device has been developed to aid in the prosthetic training of above-knee geriatric amputees. It consists of a switch which when attached to the prosthetic knee joint causes a buzzer to sound whenever the joint is not fully extended. A training protocol has been devised and has been used with success on nine patients who had difficulty in learning. The biofeedback trainer both focuses the attention of the patient on knee control and provides a more immediate and simple signal of errors than can be provided by a therapist. This system can be used by the patient in the absence of the therapist thus making better use of his hospital stay.

Authors' Summary.