

## FIVE THINGS TO KNOW ABOUT ...

## Dermoscopy

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**Dermoscopes are hand-held tools used to evaluate skin lesions**

Dermoscopy allows visualization of structures, colours and patterns in skin lesions not evident to the naked eye. Although the technique is primarily used by dermatologists, any health care provider can learn dermoscopy. Dermoscopes cost between several hundred to just over a thousand dollars, depending on the model and manufacturer.

**Dermoscopy reduces unnecessary biopsies of benign skin neoplasms**

The addition of dermoscopy to naked-eye examination in a prospective randomized trial resulted in a 42% decrease in patients referred for skin biopsy ( $p = 0.01$ ).<sup>3</sup> A retrospective study showed that the ratio of benign/malignant melanocytic lesions that were excised significantly decreased among two dermatologists who adopted dermoscopy (18:1 to 4.3:1,  $p = 0.037$ ) during a five-year period, with no change among four dermatologists who continued with naked-eye examinations alone (11.8:1 to 14.4:1).<sup>4</sup>

**A short training course in dermoscopy can be effective**

Primary care physicians given a one-day training course in techniques for skin cancer detection were randomly assigned to evaluate lesions suggestive of skin cancer during a 16-month prospective trial using either dermoscopy or naked-eye examination.<sup>5</sup> Patients with lesions suggestive of skin cancer were correctly identified in 79.2% of cases in the group examined using dermoscopy, compared with 54.1% of cases in the group examined with naked-eye examination ( $p = 0.002$ ).<sup>5</sup>

**Dermoscopy improves diagnostic accuracy for melanoma**

A conservative estimate based on meta-analysis of nine prospective studies with consecutively recruited patients suggests that dermoscopy is roughly nine times more sensitive for detecting melanoma (odds ratio 9.0, 95% confidence interval 1.5–54.6) than naked-eye examination.<sup>1</sup> Sensitivity was 18% higher with dermoscopy than with naked-eye examination (0.87 v. 0.69,  $p = 0.008$ ), with no difference in specificity.<sup>1</sup> Four studies have shown that these estimates apply not only to specialists but also to generalists trained in the procedure.<sup>2</sup> For images illustrating the use of dermoscopy in the diagnosis of melanoma, see Appendix 1, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140008/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140008/-/DC1).

**Dermoscopy has limitations in melanoma diagnosis**

Some melanomas lack discernible clinical and dermoscopic features, and are difficult to identify with a single evaluation. Sequential dermoscopy as part of ongoing surveillance of pigmented lesions may help identify so-called featureless melanomas.<sup>6</sup>

## References

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