CAR POSITION STATEMENT ON THE USE OF THYROID SHIELDS

Approved: June 2011

Many Canadians have expressed concern based on a recent media report which indicates that thyroid shields should be requested and used during routine mammography examinations. The report states that the shield should be used in order to avoid radiation exposure to the thyroid which could potentially cause thyroid cancer. This information is simply *not* based on any scientific literature.

The radiation dose to the thyroid during a mammography examination is exceptionally low¹ since the thyroid is never directly exposed to the x-ray beam. The use of thyroid shields can also interfere with the accuracy of mammography exams. A shield may impede proper breast positioning during an examination and could cause shadows to appear on the mammography images. Furthermore, in the report entitled *Summary of Thyroid Cancer Risks Due to Mammography* by R. Edward Hendrick, PhD, FACR, Dr. Hendrick concludes, "In short, mammography results in a negligible amount of radiation dose to the thyroid, even without thyroid shielding."²

Two statements, one by CancerCare Ontario and the other by the American College of Radiology in collaboration with the Society of Breast Imaging, support the CAR position that the use of thyroid shield for mammography is not indicated.

Patients are recommended not to delay or forgo any breast examinations based on unfounded media reports.

¹ Committee to Assess Health Risks from Exposure to Low Levels of Ionizing Radiation, Board on Radiation Effects, Research Division on Earth and Life Studies, et al. (2006). *National Academy of Sciences: Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII – Phase 2 (pp 273)*. Washington, DC: The National Academies Press.

² Hendrick, R.E. *Thyroid Cancer Risks Due to Mammography*. Retrieved from <u>http://mammographysaveslives.org/Documents/Thyroid%20Cancer%20Risks%20Due%20to%20Mammography.pdf</u>