



TO: Chair and Members of the Board of Health

FROM: Graham L. Pollett, MD, FRCPC  
Medical Officer of Health

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## DAILY ASPIRIN REDUCES CANCER RISKS

### **Recommendation**

*It is recommended that Report No. 079-12 re Daily Aspirin Reduces Cancer Risks be received for information.*

### **Background**

Cancer is one of the leading causes of death and disease. In Middlesex-London, lung cancer ranks as the 2<sup>nd</sup> and colorectal cancer as the 5<sup>th</sup> leading causes of death. Cancer also causes substantial morbidity or illness in the local population as it is the 5<sup>th</sup> leading cause of hospitalization. While lung cancer rates have diminished in Middlesex-London men since the late 80s, lung cancer rates in women and colorectal cancer rates in both sexes have not declined in the past 20 years.

### **Research Regarding Daily Aspirin**

New research, however, indicates that the simple preventive measure of taking an aspirin every day may reduce one's risks of developing cancer and dying from cancer, even after a relatively short period of daily use. Three studies (cited in [Appendix A](#)), reviewing over 50 randomized controlled trials, published recently in the reputable medical journal, The Lancet, indicate that after 3 years of daily aspirin use there was a 24% reduction in risk of developing cancer. After 5 years of daily aspirin there was a 37% reduction in risk of dying from cancer. The research also found the reduction in cancer deaths after such a short period on daily dose aspirin may be explained by a lowered risk of cancer metastasis or spreading to other places in the body. The greatest reduction in metastasis risk was in cancer of the gastrointestinal track. [Appendix B](#) is a copy of an article that appeared in the Globe and Mail on March 22, 2012, which highlights the research's findings.

Risk reduction was seen at varying dose levels (ranging from baby aspirin to full adult dose pills) but was only demonstrated with daily use. Alternate day use did not show a reduction in cancer incidence, cancer metastases or deaths from cancer. Risk reduction was seen in women and men.

This research indicates that the newly discovered cancer risk reduction may make it a useful tool for chronic disease prevention. Risks associated with daily aspirin use include bleeding, particularly in the gastrointestinal system or brain. While the research indicates that over the long term the reduction of risk in cancer death outweighs the risk of fatal and non-fatal bleeding, experts are still wary of the harmful effects of a broad, population-level recommendation to take a daily aspirin.

### **Knowledge Exchange at Health Unit**

This research was reviewed at the May Evidence Club meeting in Environmental Health and Chronic Disease Prevention Services. Evidence club is a group of staff that meets monthly to discuss current research topics including ways to critically appraise and interpret research articles and implications for program and service delivery.

This report was prepared by Ms. Sarah Maaten, Epidemiologist, Environmental Health and Chronic Disease Prevention Services.

Graham L. Pollett, MD, FRCPC  
Medical Officer of Health

**This report addresses** the following Board of Health Outcome of the Ontario Public Health Standards:

Public health practitioners, policy-makers, community partners, health care providers, and the public are aware of the best available research regarding the factors that determine the health of the population and support effective public health practice.

Relating to: Foundational Standard Requirement 8; Research and Knowledge Exchange

The board of health shall engage in knowledge exchange activities with public health practitioners, policy-makers, community partners, health care providers, and the public regarding factors that determine the health of the population and support effective public health practice gained through population health assessment, surveillance, research, and program evaluation.