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Studies Link Daily Doses of Aspirin to Reduced Risk of Cancer

By **RONI CARYN RABIN**

Taking aspirin every day may significantly reduce the risk of many cancers and prevent [tumors](#) from spreading, according to two new studies published on Tuesday.

The findings add to a body of evidence suggesting that cheap and widely available aspirin may be a powerful if overlooked weapon in the battle against [cancer](#). But the research also poses difficult questions for doctors and public health officials, as regular doses of aspirin can cause [gastrointestinal bleeding](#) and other side effects. Past studies have suggested that the drawbacks of daily use may outweigh the benefits, [particularly in healthy patients](#).

One of the new studies examined patient data from dozens of large, long-term randomized controlled trials involving tens of thousands of men and women. Researchers at the University of Oxford found that after three years of daily aspirin use, [the risk of developing cancer was reduced by almost 25 percent when compared with a control group not taking aspirin](#). After five years, the risk of dying of cancer was reduced by 37 percent among those taking aspirin.

A second paper that analyzed five large randomized controlled studies in Britain found that over six and a half years on average, daily aspirin use reduced the risk of metastatic cancer by 36 percent and the risk of adenocarcinomas — common solid cancers including colon, lung and [prostate cancer](#) — by 46 percent.

Daily aspirin use also reduced the risk of progressing to metastatic disease, particularly in patients with [colorectal cancer](#), the studies reported.

The studies, led by Dr. Peter M. Rothwell, a professor of clinical neurology at the

University of Oxford, were published in the medical journal *The Lancet*. A third paper by Dr. Rothwell and his colleagues, published in *The Lancet Oncology*, compared the findings of observational studies and randomized trials of aspirin.

There is an urgent need for clinical trials of treatment regimens incorporating aspirin, Dr. Rothwell said.

“What really jumps out at you in terms of prevention is the striking 75 percent reduction in esophageal cancer and a 40 to 50 percent reduction in colorectal cancer, which is the most common cancer right now,” Dr. Rothwell said. “In terms of prevention, anyone with a family history would be sensible to take aspirin,” he added.

But while some experts called the new findings “provocative” and “encouraging,” mounting evidence about the preventive promise of aspirin puts health providers in a quandary. Aspirin increases the risk of not just of gastrointestinal bleeding, but of hemorrhagic strokes.

The new studies, however, also found that the risk of bleeding in aspirin users diminished over time, and that the risk of death from brain bleeds was actually lower in the aspirin users than in the comparison group.

“I think he’s on to something. I just want to be cautious, and I don’t want to exaggerate,” said Dr. Otis W. Brawley, chief medical officer and executive vice president of the American Cancer Society. “I’m not ready to say that everybody ought to take a baby aspirin a day to prevent cancer.”

Dr. Andrew T. Chan, an associate professor of medicine at Harvard Medical School and co-author of a comment published with the articles in *The Lancet*, said the studies, despite their limitations, “raise the level of excitement about using aspirin as a chemopreventive agent.”

“If you start to include the possibility that aspirin reduces the cancer risk beyond colon cancer, then the risk-benefit ratio shifts quite a bit, especially for those cancers where we have little to offer in the way of screening and early diagnosis,” Dr. Chan said.

The randomized clinical trials the Oxford investigators examined were not

focused on cancer prevention; they were originally intended to study the effects of aspirin on preventing heart disease. The application of the findings to cancer prevention may be flawed, some experts said.

In the United States, two major studies of low-dose aspirin to prevent cancer **did not find reductions in cancer with aspirin use**. Those findings were excluded from analysis by the Oxford researchers because they involved use of aspirin every other day, rather than daily use.

Though many Americans use baby aspirin daily to reduce their risk of heart disease, patients are generally advised to do so only when their cardiac risk is presumed to outweigh the risks of taking aspirin. Physicians remain extremely reluctant to recommend long-term use of aspirin in a healthy population.

Some cancer doctors commended the new research, saying that despite the limitations of the analyses, no other long-term clinical trials of aspirin and cancer are likely to be done because of the enormous expense involved and the fact that aspirin is a cheap generic drug.