

American Cancer Society's Advances in Oncology – 2023 Research Highlights

American Cancer Society (ACS) scientists continued to lead the nation in research excellence and innovation in 2023. Important discoveries published by the ACS research team will help shape future cancer treatment and care, translate into hope for patients and families, and move us closer to a world without cancer. This year's key research highlights include:

Cancer Statistics 2023

ACS researchers released Cancer Statistics, 2023, the organization's annual report on cancer facts and trends. Published in [CA: A Cancer Journal for Clinicians](#), it showed overall cancer mortality dropped 33% since 1991, 1,958,310 new cancer cases were projected, and 609,820 cancer deaths in the United States. Two of the most critical findings, led by [Rebecca Siegel](#) and [Dr. Ahmedin Jemal](#), were an astounding 65% reduction in cervical cancer rates in women ages 20-24 from 2012 through 2019, in the wake of the introduction of the human papillomavirus (HPV) vaccine. By contrast, prostate cancer, which is the second leading cause of cancer death for men in the U.S., increased by 3% per year from 2014 through 2019 after two decades of decline. Most concerning is that this increase was driven by the diagnosis of advanced disease. To help reduce this alarming trend, ACS launched [IMPACT](#), an initiative geared toward Improving Mortality from Prostate Cancer Together. *Watch for Cancer Statistics, 2024, coming in January.*

Lung Cancer Screening Guideline Update

ACS released an update of its lung cancer screening guideline to help reduce the number of people dying from the disease due to smoking history. The new guideline, led by [Dr. Robert Smith](#), recommends yearly screening for lung cancer for people aged 50 to 80 years old who smoke or formerly smoked and have a 20-year or greater pack-year history. The recommended annual screening test for lung cancer is a low-dose computed tomography scan (also called a low-dose CT scan, or LDCT). The guideline, last updated in 2013, published in the ACS flagship journal, [CA: A Cancer Journal for Clinicians](#).

Colorectal Cancer Facts and Figures 2023

Colorectal cancer (CRC) is swiftly shifting to more advanced disease and younger individuals according to Colorectal Cancer Statistics 2023, a report on cancer facts and trends. Researchers, led by Dr. Ahmedin Jemal and Rebecca Siegel, showed the proportion of individuals in the U.S. diagnosed with advanced-stage CRC increased from 52% in the mid-2000s to 60% in 2019. In addition, diagnoses of people under 55 years of age doubled from 11% (1 in 10) in 1995 to 20% (1 in 5) in 2019. Overall, in 2023, an estimated 153,020 people will be diagnosed with CRC, and 52,550 people will die from the disease. These major findings are published in [CA: A Cancer Journal for Clinicians](#).

E-Cigarette Use Up Sharply

A study by ACS researchers, led by [Dr. Priti Bandi](#), shows almost three-quarters of a million more adults in the U.S., ages 18-29 years, used e-cigarettes between 2019-2021 during the period that spanned the EVALI outbreak (E-cigarette or vaping product use-associated lung injury) and COVID-19 pandemic. Scientists report the year-on-year increase was primarily among adults who never smoked cigarettes. The study was published in the [American Journal of Preventive Medicine \(AJPM\)](#). Researchers found the findings concerning as it may point to an increase in nicotine addiction risk for young adults, potentially contributing to the progression to combustible tobacco products, and may also increase exposure to unknown toxicants, carcinogens, and the risk of respiratory diseases.

ASCO Annual Meeting 2023- Tumor Biology and How to Better Detect Cancer Earlier

ACS researchers reported studies at this year's [American Society of Clinical Oncology \(ASCO\) Annual Meeting](#). One [oral presentation](#), led by [Dr. Alpa Patel](#), discussed early detection of cancer in the preclinical phase, when development of cancers is unobservable. Shedding of ctDNA has previously been associated with aggressive

cancers, suggesting these tumors may develop rapidly before diagnosis. Assays of ctDNA in blood samples from prospective cohort studies at various lead times (interval between blood draw and diagnosis) may provide insight into the timescales of preclinical cancer development, as well as prognosis. The study results provided estimates for the average detection window in tumors shedding ctDNA across multiple cancer sites and stages, including cancer types with no current screening paradigm. Taking lead time into account, preclinical ctDNA status selected clinically significant cancers, limiting potential for overdiagnosis. Additionally, long-term survival remained better than in SEER (Surveillance, Epidemiology, and End Results) data, suggesting that ctDNA+ cancers can be survivable.
