International Agency for Research on Cancer

World Health Organization

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Tobacco cessation after cancer diagnosis: a fundamental component of cancer care (IARC Evidence Summary Brief No. 8)

Lyon, France, 23 September 2026 – In its eighth Evidence Summary Brief,[1] the International Agency for Research on Cancer (IARC) highlights evidence that stopping smoking after a cancer diagnosis can substantially improve survival and reduce the risk of cancer progression. The report will be presented at the Union for International Cancer Control (UICC) World Cancer Congress in Hong Kong Special Administrative Region (China) on 25 September 2026.

Tobacco smoking remains responsible for one quarter of cancer deaths worldwide. Although stopping smoking is well established as an effective way to prevent cancer, the benefits of smoking cessation after a cancer diagnosis are often underestimated by both health-care professionals and patients.

To strengthen the evidence on the benefits of cessation after diagnosis, IARC, in collaboration with the N.N. Blokhin National Medical Research Center of Oncology in Moscow, Russian Federation, conducted long-term studies of patients with lung cancer and kidney cancer who were smoking at diagnosis. Patients were actively followed up for more than a decade, with annual assessments of smoking behaviour, treatment, and cancer outcomes.

Key evidence

The findings show that:

- Smoking cessation after cancer diagnosis, compared with continued smoking, reduces the risk of death and cancer progression by up to 55%.
- Patients who stop smoking after a cancer diagnosis have approximately 2 years longer progression-free survival time than those who continue to smoke.
- All patients with cancer, even those with advanced cancer and heavy smoking histories, gain significant survival benefits from stopping smoking after diagnosis.
- The survival benefits of smoking cessation extend across a wide range of cancer types, including those strongly linked to tobacco use, such as lung cancer, and cancers less commonly perceived to be tobacco-related, such as kidney cancer.

[1] IARC (2026). Tobacco cessation after cancer diagnosis: a fundamental component of cancer care (IARC Evidence Summary Brief No. 8). https://www.iarc.who.int/wp-content/uploads/2026/09/IARC_Evidence_Summary_Brief_8.pdf

"It is never too late to stop smoking. Even after a diagnosis of advanced cancer, cessation can yield meaningful clinical benefits," says Dr Mahdi Sheikh, a scientist in the Early Detection, Prevention, and Infections Branch at IARC and the lead author of the report.

The evidence also indicates that integrating tobacco cessation into cancer care is highly cost-effective. In another study, led by researchers in the United Kingdom in collaboration with IARC, systematic integration of cessation services across National Health Service (NHS) cancer care was estimated to generate annual savings of approximately £88 million.

"Every patient with cancer who smokes deserves proactive cessation support. The evidence is clear; now health systems must act on it," says Professor Matthew Evison of the Manchester University NHS Foundation Trust, United Kingdom.

These findings highlight the importance of delivering tobacco dependence treatment alongside cancer care, supported by sustainable investment in cessation services and routine delivery within oncology settings. Successful implementation will require universal access to evidence-based counselling and pharmacotherapy delivered proportionately to the level of need, with more-intensive support directed to those bearing the heaviest burden.

Call to action

IARC calls on governments and health systems to make tobacco dependence treatment a core component of cancer care, with sustainable funding, access to free or subsidized cessation pharmacotherapy, appropriate training for oncology professionals, and routine assessment and support for tobacco cessation throughout the cancer care pathway. Cancer patient organizations should also raise awareness of the benefits of smoking cessation after diagnosis among patients, their families, and advocates.

Note to the Editor

This IARC Evidence Summary Brief is the eighth in a series of scientific Evidence Summary Briefs published by IARC to call attention to the findings of evidence-based studies in key aspects of cancer prevention. IARC Evidence Summary Briefs are available from https://www.iarc.who.int/evidence-summary-briefs-series/.

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The International Agency for Research on Cancer (IARC) is part of the World Health Organization. Its mission is to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The Agency is involved in both epidemiological and laboratory research and disseminates scientific information through publications, meetings, courses, and fellowships. If you wish your name to be removed from our press release emailing list, please write to terrassev@iarc.who.int.