

# No Amount of Alcohol Is Safe

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## Responsible Drinking? Not Very

"Responsible drinking" has become a 21st-century mantra for how most people view alcohol consumption. But when it comes to cancer, no amount of alcohol is safe.<sup>[1]</sup> That is the conclusion of the 2014 World Cancer Report (WCR), issued by the World Health Organization's International Agency for Research on Cancer (IARC).

Declared a carcinogen by the IARC in 1988,<sup>[2]</sup> alcohol is causally related to several cancers. "We have known for a long time that alcohol causes esophageal cancer, says Jürgen Rehm, PhD, WCR contributor on alcohol consumption, and Senior Scientist at the Centre for Addictions and Mental Health in Toronto, Ontario, Canada, "but the relationship with other tumors, such as breast cancer, has come to our attention only in the past 10-15 years."

## The Risk Is Dose-Dependent

The more alcohol that a person drinks, the higher the risk. The alcohol/cancer link has been strengthened by the finding of a dose/response relationship between alcohol consumption and certain cancers. A causal relationship exists between alcohol consumption and cancers of the mouth, pharynx, larynx, esophagus, colon-rectum, liver, and female breast; a significant relationship also exists between alcohol consumption and pancreatic cancer.<sup>[1]</sup>

Links have also been made between alcohol consumption and leukemia; multiple myeloma; and cancers of the cervix, vulva, vagina, and skin, but fewer studies have looked at these relationships and more research is needed to establish a confirmed association.<sup>[1]</sup> For bladder, lung, and stomach cancers, the evidence for an alcohol-cancer link is conflicting.

### *How Solid Are These Data?*

"For the cancers that have been identified as being causally linked with alcohol, we are absolutely certain that alcohol causes these cancers," says Dr. Rehm. "About a few cancers, such as pancreatic cancer, we are not yet certain," he says. "We believe that we have good evidence showing that alcohol can cause pancreatic cancer, but we would not go so far as we would for esophageal cancer or breast cancer. And for renal cancer, the IARC has said that there are indications that there may be an effect, but we don't have the same level of evidence that we have for cancers that are clearly detrimentally linked to alcohol."

But surely, light drinking doesn't cause or contribute to cancer? Apparently, it does. In a meta-analysis of 222 studies comprising 92,000 light drinkers and 60,000 nondrinkers with cancer, light drinking was associated with risk for oropharyngeal cancer, esophageal squamous cell carcinoma, and female breast cancer.<sup>[3]</sup> From this meta-analysis, it was estimated that in 2004 worldwide, 5000 deaths from oropharyngeal cancer, 24,000 from esophageal squamous cell carcinoma, and 5000 from breast cancer were attributable to light drinking. Light drinking was not associated with cancer of the colon-rectum, liver, or larynx.

However, a caveat is in order here. When alcohol use is self-reported, respondents might underestimate, or underreport, their actual alcohol intake.<sup>[4]</sup> This can result in finding associations between cancer and light to moderate drinking, when in reality, alcohol intake is much higher.