



THE FACTS: IARC'S PUZZLING STANCE ON COFFEE - MONOGRAPH 116

For decades, the International Agency for Research on Cancer (IARC) warned coffee drinkers that their favorite beverage might cause cancer. Finally, IARC revisited its decision and [reclassified](#) coffee, downgrading it from “possibly carcinogenic” to “not classifiable.” While this decision is a step in the right direction, it raises new questions and concerns.

Background:

- Coffee has been a consumer favorite and commodity staple for centuries, with widespread [production and consumption](#) beginning in the 17th century.
 - It is the second most widely consumed beverage, behind water, making it an extremely [valuable agricultural commodity](#), particularly for [developing countries](#) such as Brazil, Vietnam, Indonesia, Colombia and India.
- Coffee is also a major driver of [small businesses](#), with coffee shops and chains supporting entrepreneurs and workers around the world.
- In 1991, [IARC classified coffee](#) as a Group 2B carcinogen (possibly carcinogenic). IARC claimed the data was “consistent with a weak positive relationship between coffee consumption and the occurrence of bladder cancer” but conceded that “the possibility that this is due to bias or confounding cannot be excluded.” No other cancer associations were found by IARC.
- In [June 2016](#), IARC acknowledged its finding was inconsistent with two decades of scientific study, and updated its assessment of coffee to Group 3 or “Not classifiable as carcinogenic to humans.”
 - This shift in opinion was a step in the right direction for an agency that has examined almost 1,000 agents over the past 30 years and has only once classified a substance as “Probably not carcinogenic to humans” (Group 4).
 - It was surprising IARC did not categorize coffee in Group 4 in light of the considerable evidence supporting the significant health benefits of coffee consumption including protection against [Parkinson's disease](#), [liver disease](#), [type 2 diabetes](#) and [liver cancer](#).

What IARC Said

“We can't say that it's completely safe because proving a negative is very difficult, but it has moved down a step in terms of the hierarchy of concern.” - *Dana Loomis, Deputy Section Head of IARC Monographs (July 18, 2016)*

What The Experts Said

“You would have to drink probably over 100 cups of coffee a day in order to get to that dangerous dose, so it is totally absurd.” - *Stanley Omaye, Ph.D., M.S., University of Nevada Professor of Nutrition and Toxicology (July 8, 2016)*

“If you look at the data, it's actually quite clear that coffee is beneficial.” - *Donald Hensrud, Ph.D., Mayo Clinic Director of Healthy Living Program (June 18, 2016)*

“The main thing is that, given the large amount of new and much larger and better studies that have accumulated in the past 25 years, why would one say ‘not classifiable?’ This

WHAT TO MAKE OF IARC'S CLASSIFICATIONS		
GROUP	WHAT DOES IT MEAN?	WHAT DOES IT INCLUDE?
GROUP 1	CARCINOGENIC TO HUMANS Sufficient evidence in humans. Causal relationship established.	Tobacco, mustard gas, plutonium, processed meats, canned fish, alcohol, sun
GROUP 2A	PROBABLY CARCINOGENIC TO HUMANS Limited evidence in humans. Sufficient evidence in animals.	Red meat, frying, very hot beverages, exposures from working in hairdressing
GROUP 2B	POSSIBLY CARCINOGENIC TO HUMANS Limited evidence in humans. Insufficient evidence in animals.	Pickled vegetables, radiofrequency electromagnetic fields, exposures from working in carpentry, gasoline
GROUP 3	CARCINOGENICITY NOT CLASSIFIABLE Inadequate evidence in humans. Inadequate evidence in animals.	Coffee, tea, caffeine, fluorescent lighting
GROUP 4	PROBABLY NOT CARCINOGENIC Evidence suggests no carcinogenicity in humans/animals.	ONLY 1 CHEMICAL EVER PLACED IN THIS GROUP, OF ALL SUBSTANCES ASSESSED Caprolactam, which is used in the manufacture of synthetic fibres.

Source: [Compound Interest](#)

makes no sense. It points (out) that IARC is willing to say there is a 'possible' risk based on very flimsy studies, but when there is much more evidence of a higher caliber that seems to point to the absence of a risk, IARC declares coffee 'not classifiable.'" - *Geoffrey Kabat, Ph.D., M.S., Cancer Epidemiologist at the Albert Einstein College of Medicine* ([July 8, 2016](#))

"If you look at the body of evidence out there about coffee, it's probably not bad for you, and may be good for you. So drink up." - *Timothy Caulfield, Canada Research Chair in Health Law and Policy at the University of Alberta* ([June 18, 2016](#))

Additional Links and Resources

- IARC Monographs evaluate drinking coffee, mate, and very hot beverages (IARC, [June 15, 2016](#))
- Deluge of studies leaves coffee lovers dizzy (CBC News, [June 18, 2016](#))
- IARC reverses itself on link between coffee and cancer (Legal News Line, [July 8, 2016](#))
- IARC lets coffee off the hook but only deepens the confusion (Forbes, [June 18, 2016](#))
- How coffee became a carcinogen (Slate, [Oct. 30, 2016](#))
- High-profile cancer reviews trigger controversy (Science Magazine, [June 24, 2016](#))