International Agency for Research on Cancer



ISIC Communications Strategy in response to Monographs Volume 116: Coffee, maté, and very hot beverages

Presentation to ICO 20 September Joanna Scott – ISIC Communications Manager



Introduction

- The International Agency for Research on Cancer (IARC) is the specialised cancer agency of the World Health Organisation (WHO)
- IARC reviews all available scientific evidence on particular chemicals, common foods and beverages, and classifies them into 5 categories based on the strength of evidence that they may cause cancer
 - Group 1: Carcinogenic to humans
 - Group 2A: Probably carcinogenic to humans
 - Group 2B: Possibly carcinogenic to humans
 - Group 3: Not classifiable as to carcinogenicity
 - Group 4: Probably not carcinogenic
- IARC is a scientific, not a regulatory, body. Its classifications do not reflect a judgement or measure of the likely risk to public health in everyday life, which is outside IARC's remit, but its opinions are taken into consideration by regulatory and health authorities.



Context

- Following IARC's review of red/processed meat in 2015, it was clear that IARC's remit was not understood. The meat findings were widely misinterpreted as public health advice. There was significant risk of the same problem recurring for the coffee review
- In a worst-case scenario, IARC's findings on coffee could be misrepresented by media and misunderstood by the public, undoing much of ISIC's work to promote a better understanding of coffee and health .

science

Just two rashers of bacon a day raises your risk of cancer: Health chiefs put processed meat at same level as cigarettes

- Damning new report from the World Health Organisation released today
- · Rulings will send shock waves through farming and fast food industries
- · Experts said no need to cut out eating red and processed meat totally
- · But people who eat a lot should think about cutting down, they added

By SOPHIE BORLAND HEALTH CORRESPONDENT FOR THE DAILY MAIL PUBLISHED: 11:48, 26 October 2015 | UPDATED: 01:29, 27 October 2015



Bacon, burgers and sausages are as big a cancer threat as cigarettes, global health chiefs warned today.



- IARC had last reviewed coffee in 1991 when it was classified in Group 2B as one of 288 agents, including aloe vera and pickled vegetables.
- In 1991, IARC classified coffee as "possibly carcinogenic to the human urinary bladder" (Group 2B). This conclusion was reached after reviewing the limited evidence available at that time. IARC noted that the data "are consistent with a weak positive relationship between coffee consumption and the occurrence of bladder cancer, but the possibility that this is due to bias or confounding factors cannot be excluded."
- IARC did not find convincing evidence for an association of coffee with other types of cancer



Strategy

- Plan ahead: developed messaging for all three scenarios:
 - Group 2A, 2B, or 3
- Robust scientific response: use ISIC's expertise to provide science-based response to IARC review, avoiding 'finger-pointing' or stepping beyond ISIC's remit
- Develop the 'voice' of ISIC: official spokesperson provided a named expert for media comment
- Coordinate across European and international coffee sector: liaised with European and US NCAs and ICO with the objective of ensuring industry presented a united and consistent message on coffee and cancer
- Lay the groundwork: use existing ISIC materials as a reason to reach out to media and ensure ISIC was front-of-mind for coffee comment – without alerting them to IARC's upcoming review



ISIC preparation

ISIC developed a Core Issues Team (CIT) to streamline approval process, recognising that in a live situation, there is often little time to sign off materials and produced draft materials based on scenarios:

For media use:

- Scenario planning
 - Statements for each potential Group classification, very hot beverages statement, and interim holding statement
- Q&As and question topics
 - Explaining key terms and answering likely questions relating to IARC's review of coffee, with all answers supported by detailed scientific references

For internal use:

- Issues management plan and timeline
 - Setting out approach, roles and responsibilities, day-by-activity during key time period
- NCA IARC briefing presentation
 - Including media handling protocol
- Media training session
 - Developed and ran session for Roel Vaessen
- Spokesperson talking points
 - To assist with media interviews

For social media/website:

- Website FAQs
 - To be uploaded after IARC announcement
- Spokesperson video
 - Filmed short 'talking head' video with Roel Vaessen to provide simple overview of IARC's findings
- Tweet bank
 - To anticipate questions directed at the @coffeeandhealth account and plan appropriate responses



Pre-publication scenarios

Favourable Scenario RATING : GROUP 3

ISIC Position

- Welcome the conclusions of IARC assessment
- They reflect well the body of scientific evidence
- Moderate coffee consumption fits within a balanced diet

Neutral Scenario RATING : GROUP 2B

ISIC Position

- Acknowledge the conclusions of IARC assessment
- They reflect body of scientific evidence with no significant risk associated with coffee
- Review IARC's conclusions in more detail when full report is available

Negative Scenario RATING : GROUP 2A

ISIC Position

- Surprised by the conclusions of IARC assessment given the body of scientific evidence
- Review IARC's conclusions in more detail when full report is available



- 15 June 2016 The International Agency for Research on Cancer (IARC) published its review into the scientific evidence related to coffee and cancer, announcing that it has classified coffee in Group 3 for agents 'not classifiable as to carcinogenicity to humans'.
- The review, published in *The Lancet Oncology*, found no clear association between coffee intake and cancer at any body site and, in some cases, found evidence that coffee drinking may actually help reduce occurrence of certain cancers¹, citing reduced risks for cancers of the liver and uterine endometrium.

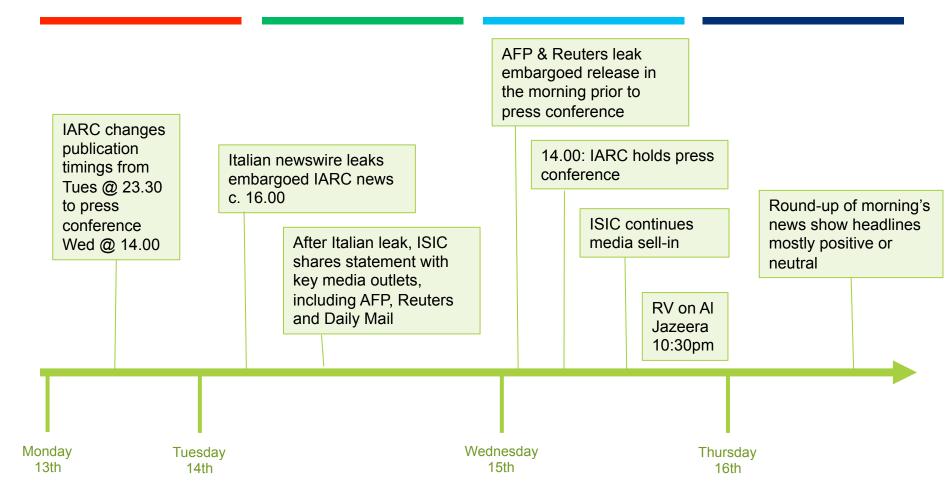


IARC conclusions –very hot beverages

- IARC's findings also suggested that temperature, rather than the type of drink, is linked to potential carcinogenicity.
- Drinking very hot beverages (over 65°C) was classified as probably carcinogenic to humans Group 2A
- However, as any drink consumed at temperatures over 65°C is hot enough to scald the mouth and tongue, it is very unlikely that consumers would be able to drink their coffee at such very hot temperatures.
- IARC's assessment relates to all beverages consumed at very high temperatures in general, not coffee in particular. In fact, very little of the research reviewed by IARC on this subject referred to coffee specifically.
- IARC's new classification concerning very hot beverage consumption concluded that very high temperature is defined as being significantly hotter than the temperature at which most people can comfortably drink coffee without scalding their mouth and tongue. Liquid temperatures higher than 65°C are above the normal human pain threshold.



Timeline of events





Challenges

• IARC press office activity

- During initial conversations with the IARC press office, they stated that they would not be issuing and embargoed press release
- On 13.06.16, a day before the expected Lancet Oncology report (due 14.06.16 at 23:30pm GMT), IARC announced it would hold a tele press conference at 2pm GMT on 15.06.16
- IARC also released an embargoed press release (restricting print until 1pm GMT on 15.06.16)

Media leaks

- IARC's embargoed release was leaked by an Italian newswire a day before the official announcement date (14.06.16)
- The French newswire also then broke the embargo, issuing the story the following morning (15.06.16)
- Several media outlets had clearly also been forewarned about the IARC announcement by "3rd parties" and had either access to the embargoed press release or insider information on the review outcome before the embargo lifted



ISIC media mentions & reach

HailOnline

2.2million unique monthly users

Coffee could keep cancer at bay: Consuming drink regularly may prevent certain types of disease such as womb and liver cancer

- Experts have found an 'inverse relationship' between coffee and cancer
- · WHO will reverse its previous finding about dangers of drinking coffee
- · Ruling is likely to benefit Britain's multi-billion pound coffee industry

By STEVEN WRIGHT, ASSOCIATE NEWS EDITOR FOR THE DAILY MAIL

PUBLISHED: 23:52, 14 June 2016 | UPDATED: 14:13, 15 June 2016

Coffee could help protect people from cancer, global health chiefs will announce today.

The World Health Organisation (WHO) will say there is evidence that drinking coffee regularly may prevent certain types of the disease, such as womb and liver cancer.

Experts are said to have found an 'inverse relationship' between coffee consumption and those types of cancer



Coffee could help protect people from cancer, global health chiefs will announce today

In a shock ruling, the cancer-research wing of the WHO will also reverse its previous finding about the dangers of drinking coffee.

In 1991, the International Agency for Research on Cancer (IARC) decreed coffee 'possibly caused cancer

But after reviewing academic and scientific research carried out over the last two decades, the WHO will today announce that it is revoking its previous conclusion that the drink could cause bladder cancer.

Instead coffee will be reclassified in WHO rankings, meaning there is insufficient evidence to say it might even possibly cause cancer.

It will move from Group 2B - in which substances are classified as 'possibly carcinogenic to humans' - into Group 3, for substances where there is no evidence of a link to cancer.

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Scientists reported that the many compounds in coffee are known to help lower inflammation or insulin resistance

For many years, drinking coffee was deemed to be unhealthy, with experts recommending people drink no more than five cups a day.

Much of that concern came from research in the 1970s and 1980s that linked the hot drink to higher rates of cancer and heart disease. The debate became a major topic in 1981, when two publications suggested coffee caused pancreatic cancer.

But crucially, say experts, the studies did not take into consideration that coffee drinkers are also more likely to smoke, possibly drink alcohol and engage in other behaviours that contribute to cancer and heart problems

More recent studies that account for these factors are starting to find the opposite, showing that coffee drinkers might have a slightly lower mortality risk.

In 2008 it was reported that three cups of coffee a day could reduce women's risk of developing cancer of the lining of the womb by 62 per cent.

A team at the National Cancer Centre, Japan, found coffee reduces insulin and oestrogen levels, both linked to the cancer's development.

In 2010, a US study said those who drink four cups of coffee a day are 39 per cent less likely to suffer from oral cancer

Doctors say people should drink coffee in moderation because caffeine can increase heart rate and blood pressure.

However, the researchers involved in the 2010 study insisted evidence is strong that some of the 1,000 chemicals in coffee - including antioxidants - could offer protection against the cancers

Roel Vaessen, secretary general of the Institute for Scientific Information on Coffee, a not-forprofit research organisation, said: 'ISIC



welcomes and supports this announcement, which takes into account the large body of new scientific evidence published since IARC last evaluated coffee in 1991.

'In its latest review, IARC has judged that there is no negative relationship between coffee consumption and cancer. IARC concluded that coffee may actually be protective for some cancers, such as liver and endometrial [womb lining] cancer.'

In the UK, about 8,475 new cases of womb cancer are diagnosed each year. It is more common in women who have been through the menopause.

Despite being a common type of cancer worldwide, liver cancer is relatively uncommon in the UK, with just over 4,000 new cases diagnosed each year.

Bill Murray, president of National Coffee Association (NCA) in the US: said: 'The World Health Organisation's IARC finding is great news for coffee drinkers and confirms evidence from an avalanche of studies by highly respected and independent scientists.

'IARC considered all the science and concluded that regular coffee consumption could reduce the risk of liver cancer and a cancer in the lining of the uterus."



coffee8health from the institute for scientific information on coffe

ISIC media mentions & reach

They once warned it may be carcinogenic, now...

Daily Mail

Circulation: 1.5m

By Stephen Wright Associate News Editor

COFFEE could help protect people from cancer, global health chiefs will announce today. The World Health Organisation

The World Health Organisation (WHO) will say there is evidence that drinking coffee regularly may prevent certain types of the disease, such as womb and liver cancer.

Experts are said to have found an 'inverse relationship' between coffee consumption and those types of cancer.

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Instead coffee will be reclassified in WHO rankings, meaning there is insufficient evidence to say it might even possibly cause cancer.

It will move from Group 2B - in which substances are classified as 'possibly carcinogenic to humans' - into Group 3, for substances where there is no evidence of a link to cancer.

The ruling is likely to be a huge boon to Britain's multi-billion pound coffee industry.

Coffee is drunk by 75 per cent of Britons, and it is also the most popular drink worldwide with around two billion cups consumed every day.

The rulings, revealed to the Daily Mail, come after experts from around the world met in France last month to re-evaluate the health risks of coffee.

They follow other recent research pointing to the health benefits of drinking coffee.

Last November, a study published in the scientific journal Circulation found that regular coffee drinkers had a lower risk of dying early from problems such as heart diseases, diabetes and brain conditions.

Scientists reported that the

many compounds in coffee are known to help lower inflammation or insulin resistance.

For many years, drinking coffee was deemed to be unhealthy, with experts recommending people drink no more than five cups a day.

Much of that concern came from research in the 1970s and 1980s that linked the hot drink to higher rates of cancer and

'No negative relationship'

heart disease. The debate became a major topic in 1981, when two publications suggested coffee caused pancreatic cancer. But crucially, say experts, the studies did not take into consideration that coffee drinkers are also more likely to smoke, possibly drink alcohol and engage in other behaviours that contribute to cancer and heart problems. More recent studies that account for these factors are starting to find the opposite, showing that coffee drinkers might have a slightly lower mortality risk.

Health chiefs

tell us coffee

could keep

cancer at b

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Doctors say people should drink coffee in moderation because caffeine can increase heart rate and blood pressure.

However, the researchers involved in the 2010 study insisted evidence is strong that some of the 1,000 chemicals in coffee – including antioxidants – could offer protection against the cancers. Roel Vaessen, secretary general of the Institute for Scientific Information on Coffee, a not-for-profit research organisation, said: 'ISIC welcomes and supports this announcement, which takes into account the large body of new scientific evidence published since LARC last evaluated coffee in 1991.

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rom the institute for scientific information on coffe

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A cappuccino a day is what the doctor orders (as long as it's under 65C)

Anna Maxted

June 27 2016, 5:00pm, The Times



The WHO says there is no link between coffee and cancer — but it may protect against type 2 diabetes and liver disease

Now and then, a friend boasts of giving up coffee and extols the glorious youth-renewing benefits of misery and denial. And as we pop another pod in the Nespresso machine, there's a squeak of guilt that we, the morally weak, remain slaves to caffeine (the UK consumes roughly 2.2 billion cups of coffee a year); that we are condemning ourselves to, allegedly, leathery skin, crumbling bones, thinning hair and — an espresso macchiato, please — the heightened risk of a heart attack or cancer.

Not any more. Last week, the International Agency for Research on Cancer (IARC) — part of the World Health Organisation (WHO) — confirmed that there is no link between coffee drinking and cancer. The IARC evaluated more than 500 relevant studies, and as a result declared coffee as "not classifiable as to carcinogenicity to humans". Pancreatic cancer, female breast cancer, prostate cancer — nothing, nada, no link to your latte habit. In fact, the review, published in *The Lancet Oncology*, also found evidence that drinking coffee may actually help to reduce the occurrence of certain cancers, such as in the liver and womb.

WHO has effectively caught up with scientific research, which has progressed a long way since the IARC's last review in 1991, when coffee was classified as "possibly carcinogenic to humans". Now it admits that this evaluation was based on "inadequate evidence". Only a beverage — be it coffee, hot chocolate or liquorice tea — drunk at higher than 65C posed a possible cancer risk. The chance of developing oesophageal cancer may increase at this temperature, a worry if you regularly enjoy burning your throat. (Previous studies on tea advise waiting four minutes for drinks to cool from "scalding" to "tolerable" — or adding cold milk.) Otherwise, it's lukewarm espressos all round.

Coffee has been relieved of a number of health-damaging accusations. Last year, the Dietary Guidelines Advisory Committee in the United States concluded that for adults,



THE TIMES

Circulation: 438,159

A cappuccino a day is what the doctor orders (as long as it's under 65C)

The World Health Organisation says coffee is healthy — but don't drink it while it's hot. By Anna Maxted

ow and then, a friend boasts of giving up coffee and. extals the glorious youth-renewing benefits of misery and denial. As we pop another pod in the Nespresso machine, there's a squeak of guilt that we, the morally weak, remain slaves to caffeine (the UK consumes 2.2 billion cups of coffee a year); that we are condemning ourselves to, allegedly, leathery skin, crumbling bones, thinning hair and an espresso, please - the heightened risk of a heart attack or cancer. No longer. Last week, the International Agency for Research on Cancer (IARC) - part of the World Health Organisation (WHO) - confirmed that there is no link between coffee drinking and cancer. The IARC evaluated more than 500 relevant studies, and as a result declared coffee as "not classifiable as to carcinogenicity to humans". Pancreatic cancer, female breast cancer, prostate cancer - nothing,

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Information on Coffee (ISIC), drinking 3-4 cups a day decreases the likelihood of type 2 diabetes by about 25 per cent, compared with drinking none.

Decaffeinated coffee also lowers our diabetes risk, suggesting that coffee contains other beneficial compounds besides caffeine; it certainly contains antioxidants that mop up free radicals. Yet who knew that your ristretto or flat white contains potassium, magnesium and niacin? Or that, unless consumed in large quantities. it does not turn you into a desiccated husk. A third of us believe that coffee dehydrates us yet, says Chris Stemman, the executive director of the British Coffee Association, "the caffeine levels consumed throughout the day in a couple of cups of coffee are no more a diuretic than water". The British Heart Foundation

(BHF) states that moderate amounts of caffeine do not lead to irregular heartbeats, coronary heart disease or affect blood pressure. Tracey Parker, senior dictitian at the BHF, says: "Up to five cups of coffee per day is not detrimental to health in terms of cardiovascular disease."

Recommended amounts vary according to what you're hoping to avoid. If cardiovascular mortality is your suspected nemesis, the perfect amount is approximately three cups daily. Yet overall, the magic number for optimal health seems to be 3-5 8oz cups of coffee daily. "In Starbucks, Soz would be a short," says Dr Miriam Nelson, a professor of nutrition and member of the Dietary Guidelines Advisory Committee. "We're not talking the huge ventis." A single Starbucks venti-sized brewed coffee contains about 410mg of caffeine; 400mg is equivalent to four mugs of instant, or four cups of brewed coffee. Yet, says Nelson, "because coffee is so pleasurable and we like it so much"



the assumption is that "it must be bad for you". We forget "coffee is actually a wholefood. It comes from the seed of a berry; it's not an artificial concoction." Low-fat, almond or soy milk are of equal merit, she believes: "It's making sure you're not adding a lot of extra calories and harmful fat. That's key." Take note if your fix is a Starbucks caramel apple spice venti (360 calories, before the whipped cream).

One persistent rumour is that coffee leaches calcium from your bones. Nelson, the author of Strong Women, Strong Bones, says: "There's no evidence that coffee hurts your bones." What about coffee inhibiting iron absorption (the ground for those claims about thinning hair)? "We

Coffee is actually a wholefood. It comes from the seed of a berry

certainly didn't see anaemia as a problem among coffee drinkers."

Professor Graeme Alexander, the consultant hepatologist and president of the British Association for the Study of the Liver, was as close to jumping for joy as eminent professors get. introducing a report this month called The Health Benefits of Coffee. "At last," he crowed, "liver physicians have found a lifestyle habit that is good for your liver! It doesn't matter where the patient comes from, or what type of liver disease they've got, it appears in large studies that coffee reduces the risk of liver scarring, fibrosis and liver cancer." He adds: "The highest coffee drinkers appear to get the most benefit; two, three cups a day."

The report's authors note that coffee components besides caffeine are being investigated for their beneficial interaction with the liver: "Kahweol and cafestol, naturally occurring compounds in coffee, have revealed certain anti-carcinogenic properties."

Not all of the research appears to be positive. In 2013 an Australian study declared that consuming relatively high amounts of a compound in coffee called chlorogenic acid seemed to raise the risk of obesity, diabetes and cardiovascular disease. The damaging dose (in mice) was equivalent to five or six cups of coffee a day. As Dr Sarah Jarvis, a fellow of the Royal College of General Practitioners, says: "In large quantities almost anything is bad for you, including exercise and water.

"There are so many potential confounding factors. About 20 or 30 years ago there was huge concern about coffee being associated with lung cancer. In fact, it was all down to the fact that heavy coffee drinkers were likely to be heavy smokers."

Does the way coffee is prepared affect its health-giving qualities? Not according to the LARC, which notes that while the chemical properties of coffee can differ, depending on the type of bean and how it is processed, roasted and prepared for drinking, studies "do not show consistent and robust differences in cancer risk for different kinds of coffee or different preparation methods".

Coffee snobs may be pleased to note, however, that according to the US Food and Drug Administration, light roasted instant coffee has the highest levels of the potentially harmful chemical acrylamide: Nescafé instant contains 471ppb (parts per billion) compared with Starbucks dark roast (132) or brewed (9). However, the ISIC says that "regular moderate coffee consumption is not considered to raise any concerns regarding exposure to acrylamide".

The big coffee chains use a variety of brewing methods. Jarvis says: "The Scandinavian method of brewing coffee, where you brew a pot and let i sit in its own juices, and every time someone comes round you boil it up again — that has been associated witi a risk of increased cholesterol, but only that method. Neither filter nor the Italian method of forcing the steam through the coffee are associated with the same risks."

She notes: "The majority of the cholesterol we have in our bodies is not cholesterol we eat or drink, it's cholesterol we make in our livers from saturated fat." So how does this relate to a dollop of cream - or a blob of coconut oil - in our americano? "A dollop of cream is very high in saturated fat. I am not a proponent of coconut oil. Any fat that is solid at room temperature is saturated." So getting fancy is not advised? "I would actively suggest that you don't. Jarvis's recipe for a healthy coffee is "semi-skimmed milk, no fuss, no anything else, certainly no sugar and ideally no artificial sweetener either. On the whole, I'd recommend drinking coffee by itself" - rather than with food -- "though its effect a the inhibition of iron is small, at best."

The apparent pros of our addiction far outweigh the cons. Not only are people who drink caffeinated coffee (three cups ideally, per day) less likely to develop Parkinson's disease, says Jarvis, but "there is a single compounin coffee, EHT, which has been isolated and is being looked into as a treatment for Parkinson's. It's related to protecting against reduction in neurons and nerve cells in the substantia nigra, the part of the brain closely linked with Parkinson's."

Not only that, Jarvis adds: "With respect to cognitive decline, caffeine may reduce build-up of [a protein called] amyloid beta, which is found in dementia." The ISIC reports that "3-5 cups daily can reduce the risk of developing Alzheimer's by up to 20 per cent".

Small wonder then, that this elixir of life has replaced the cuppa as our national drink (bea consumption dropped 22 per cent in the past five years, Mintel reported last August). Though for James Hoffmann, the co-founder of Square Mile Coffee, and a former world barista champion — who calls to chat from the World of Coffee symposium in Dublin — the issue isn't black and white. For him, our passion for coffee is more nuanced: it's a marvellous social glue, "it makes us better people in the morning" and it's delicious. He says: "I love black coffee; it's a little bit more like wine and brandy in that it's easy to taste the particular flavours."

And even though "It's better than a guilty pleasure, it's a positive pleasure", Hoffmann isn't sure that more people are drinking more coffee because it's healthier. "People drink it because they just love how it tastes," he says.



Can coffee cause cancer? Only if it's very hot, says WHO

agency

There is no conclusive evidence that <u>drinking coffee</u> a causes cancer, the World Health Organization's cancer agency said on Wednesday in a reverse of its previous warning, but it also said all "very hot" drinks are probably carcinogenic.

The International Agency for Research on Cancer (IARC) had previously rated coffee as "possibly carcinogenic" but has changed its mind.

It now says its latest review found "no conclusive evidence for a carcinogenic effect" of coffee drinking and pointed to some studies showing coffee may actually reduce the risk of developing certain types of cancer.

"(This) does not show that coffee is certainly safe ... but there is less reason for concern today than there was before," Dana Loomis, the deputy head of IARC's Monograph classification department told a news conference.

At the same time, however, IARC presented other scientific evidence which suggests that drinking anything very hot - around 65 degrees Celsius or above - including water, coffee, tea and other beverages, probably does cause cancer of the oesophagus.

Lyon-based IARC, which last year prompted headlines worldwide by saying processed meat can cause cancer, reached its conclusions after reviewing more than 1,000 scientific studies in humans and animals. There was inadequate evidence for coffee to be classified as either carcinogenic or not carcinogenic.

IARC had previously put coffee as a "possible carcinogen" in its 2B category alongside chloroform, lead and many other substances.

The U.S. National Coffee Association welcomed the change in IARC's classification as "great news for coffee drinkers".

The Institute for Scientific Information on Coffee, whose members are six of the major European coffee companies - illycaffè, Jacobs Douwe Egberts, Lavazza, Nestlé (NESN.S), Paulig, and Tchibo - said IARC had found "no negative relationship between coffee consumption and cancer".

LET IT COOL

In its evaluation of very hot drinks, IARC said animal studies suggest carcinogenic effects probably occur with drinking temperatures of 65 Celsius or above. Some experiments with rats and mice found "very hot" liquids, including water, could promote the development of tumours, it said.

The agency said studies of hot drinks such as maté, an infusion consumed mainly in South America, tea and other drinks in several countries including China, Iran, Japan and Turkey, found the risk of oesophageal cancer "may increase with the temperature of the drink" above 65 Celsius.

"These results suggest that drinking very hot beverages is one probable cause of oesophageal cancer and that it is the temperature, rather than the drinks themselves, that appears to be responsible," said IARC's director, Christopher Wild.

Oesophageal cancer is the eighth most common cause of cancer worldwide and one of the main causes of cancer death, with around 400,000 deaths recorded in 2012.

The WHO's official spokesman in Geneva, Gregory Hartl, stressed that smoking and drinking alcohol were among the most serious risk factors for oesophageal cancer and urged people to focus on reducing these as a priority. He said IARC's evaluation of hot drinks was based on limited available evidence in humans and animals and more research is needed.

"We say: be prudent, let hot drinks cool down," he told Reuters, adding that the WHO's advice was to "not consume foods or drinks when they are at a very hot - scalding hot - temperature".

Drinking very hot beverages is now classified as probably carcinogenic in IARC's group 2A category, alongside red meat and nitrogen mustard.

But David Spiegelhalter, a professor of the Public Understanding of Risk at Britain's University of Cambridge, said he was concerned that IARC's review would confuse people.

"Last year the IARC said that bacon is carcinogenic, but it became clear that when eaten in moderation it is not very risky. In the case of very hot drinks, the IARC concludes they are probably hazardous, but can't say how big the risk might be," he said in an emailed comment. "This may be interesting science, but makes it difficult to construct a sensible response."





- Further articles referencing ISIC either as a syndication or from within non-European market:
 - Capital Bay <u>WHO recommend drinking coffee to keep Cancer at bay</u>
 - The Daily Herald Can coffee cause cancer? Only if it's very hot
 - New York South East Post Why drinking very hot coffee may be a cancer risk
 - Health 24 <u>WHO agency: very hot drinks 'probably' cause cancer</u>
 - Nano News Leave the coffee to cool: scalding drinks pose throat cancer risk
 - Muscat Daily Very hot drinks 'probably' cause cancer: UN agency
 - FMT Can coffee cause cancer? Only if it's very hot, says WHO agency
 - Men's Health Singapore Cancer Is "Probably" Caused By Hot Drinks
 - Qatar Tribune <u>Can coffee cause cancer? Only if it's very hot: WHO</u>
 - Pop Herald <u>Alright, Maybe Coffee Doesn't Cause Cancer After All</u>
 - Pop Herald <u>Coffee no longer deemed possible carcinogen</u>
 - Pop Herald <u>Why drinking very hot coffee may be cancer risk</u>
 - Farandu Life <u>Coffee not linked to cancer, says WHO</u>
 - The Daily Star Lebanon <u>Coffee doesn't cause cancer, unless very hot</u>
 - New Age <u>Very hot drinks 'probably' cause cancer: UN</u>
 - Blog Notizie Not enough evidence to link coffee to cancer, says World Health Organization
 - Farandu Life <u>Coffee struck from list of possible cancer-causing agents</u>
 - Standard Digital Can coffee cause cancer? Only if it's very hot, says WHO agency



- Further articles referencing ISIC either as a syndication or from within non-European market:
 - Alan <u>UN: Hot drinks can cause cancer</u>
 - Domain-b Very hot drinks probably cancer risk: ICAR
 - Farandu Life <u>Drinking hot beverages 'could cause cancer'</u>
 - Wwnt Radio <u>The real reason coffee may kill you</u>
 - Bonham Journal <u>Not coffee or tea, but very hot drink causes cancer</u>
 - Borneo Bulletin Very hot drinks 'probably' cause cancer: UN agency
 - Young Herald Can coffee cause cancer? Only if it's very hot, says World Health Organization agency
 - Cambodian Times <u>WHO agency: very hot drinks probably cause cancer</u>
 - Maine News Online <u>WHO: There is no conclusive evidence that drinking coffee causes cancer</u>
 - Prothom Alo <u>Very hot drinks 'probably' cause cancer: UN</u>
 - Young Herald <u>Study Says Super-Hot Coffee and Tea 'Probably' Cause Cancer</u>
 - Singapore Star <u>WHO agency: very hot drinks probably cause cancer</u>
 - Pop Herald <u>Coffee is carcinogenic, but only if 'very hot', says WHO</u>
 - IOL <u>Beware very hot drinks WHO</u>
 - Pakistan Observer <u>CAN COFFEE CAUSE CANCER? ONLY IF IT'S VERY HOT, SAYS WHO AGENCY</u>
 - The Villages Suntimes <u>Drinking Very Hot Coffee Probably Causes Cancer, Experts Say</u>
 - Wwnt Radio Coffee Is Not a Carcinogen... Unless it's Very Hot
 - Deccan Chronicle Very hot drinks 'probably' cause cancer
 - Ambiente Ja World Health Organisation issues worrying warning about hot drinks



Analysis of outcome /1

- For ISIC
 - Extremely positive: ISIC comment and messaging featured in a number of prominent articles about the IARC review
 - The IARC outcome reflects ISIC's ongoing emphasis on robust, unbiased science as a means of communicating coffee's effect on health
 - ISIC observer able to provide scientific input for IARC scientists' consideration, which notably helped ensure that the definition of a 'very hot' beverage was given due attention



Analysis of outcome /2

• For the coffee industry as a whole

- Extremely positive: coffee has not only been downgraded by IARC, but from a consumer perspective, coffee's protective effect against certain cancers has been highlighted in headlines around the world
- The potentially negative news on very hot beverages had little impact as

 a) this did not single out coffee specifically and b) consumer concerns
 easily laid to rest, as most coverage made it clear that the definition of
 'very hot' was so high as to be undrinkable by most individuals



Thank You and Any Questions?

