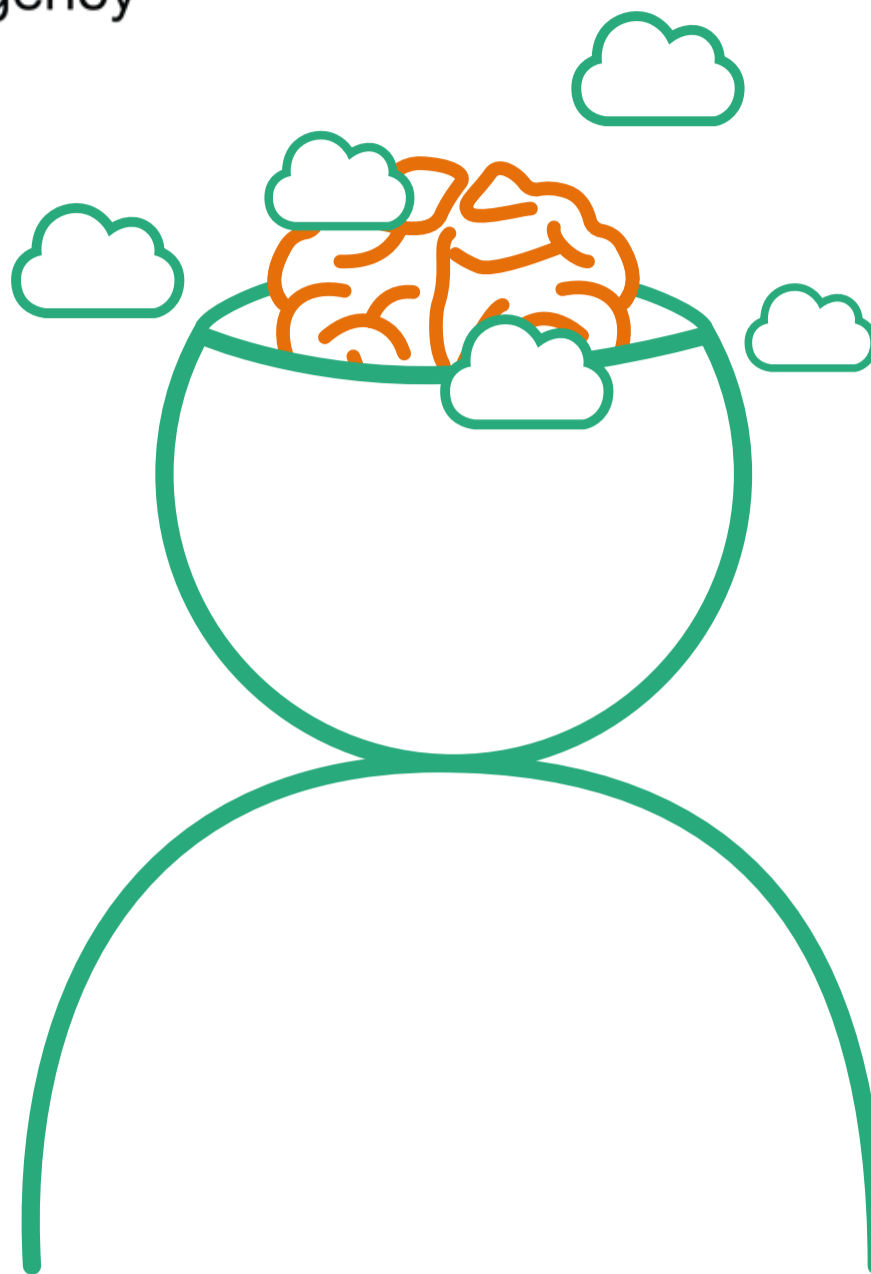




Ministry for the
Climate Emergency



What is brain pollution?

A Public Health Information briefing about
the **dangers of advertising** by the Ministry for the
Climate Emergency on tackling the least understood
public health crisis.



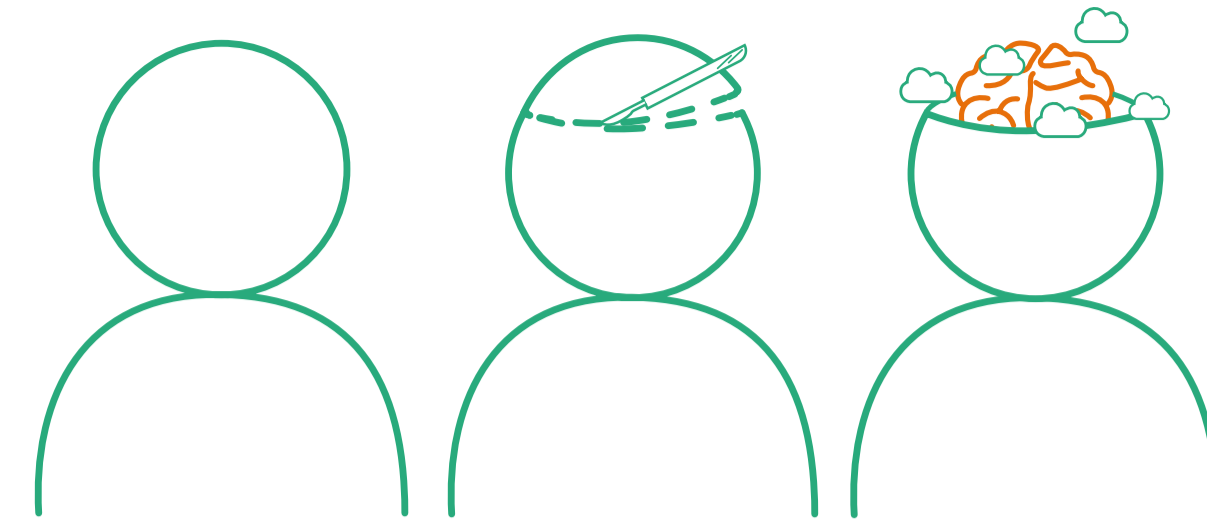
We all have Brain Pollution.

We must act now before it is too late for us and the climate emergency.

Key areas included in this briefing:

- ▶ What is brain pollution?
- ▶ How big is the problem?
- ▶ Why does it matter?
- ▶ Who is responsible?
- ▶ What can be done about it?

Read on to find out how advertising
is promoting our climate crisis.



What is Brain Pollution?

We've all heard of the disastrous effects of noise and air pollution for human health and the planet but what about brain pollution? Brain pollution is the term for the well established but poorly recognised effects that advertising has on human health and well-being, as well as the choices people make and their consequences. For these reasons, the Ministry for the Climate Emergency has produced this briefing to raise awareness and outline the options for actions to tackle brain pollution.

We no longer see once common adverts with smiling doctors, cigarette in hand, encouraging us to smoke, but there are many adverts that encourage people and whole economies to smoke in a different way, by promoting high carbon lifestyles. This is how the brain pollution of advertising has a climate and ecological impact. But the Ministry for the Climate Emergency is also concerned about other impacts on people.

Extensive scientific research shows that when exposed to advertising people "buy into" the materialistic values and goals it encourages.¹ When this happens they report lower levels of personal well-being, experience conflict in relationships, engage in fewer positive, social behaviours, and it has detrimental effects on study and work. The more that people prioritize materialistic values and goals, the less they embrace positive attitudes about the environment and the more likely they are to behave in damaging ways.

As a result of exposure to brain pollution, people place more value on consuming what they see advertised and less on the time for things like playing sports, or with children or chatting with friends and family. In other words, brain pollution makes people want to work, shop, and consume relatively more than to rest, recreate, and relate with others - making us less enjoyable to be around as friends and family members.

More shocking still, the latest findings from neuroscience reveal that advertising goes as far as lodging itself in the brain, rewiring it by forming physical structures and causing permanent change.

Brands which have been made familiar through advertising have a strong influence on the choices people make. Under MRI scans the logos of recognisable car brands are shown to activate a single region of the brain in the medial prefrontal cortex related to familiar logo recognition.² Brands and logos have also been shown to generate strong preferences between virtually identical products, such as in the case of sweet, fizzy drinks. Under anonymous testing people responded equally, but cued by the drinks branding measured responses in the ventromedial prefrontal cortex and expressed

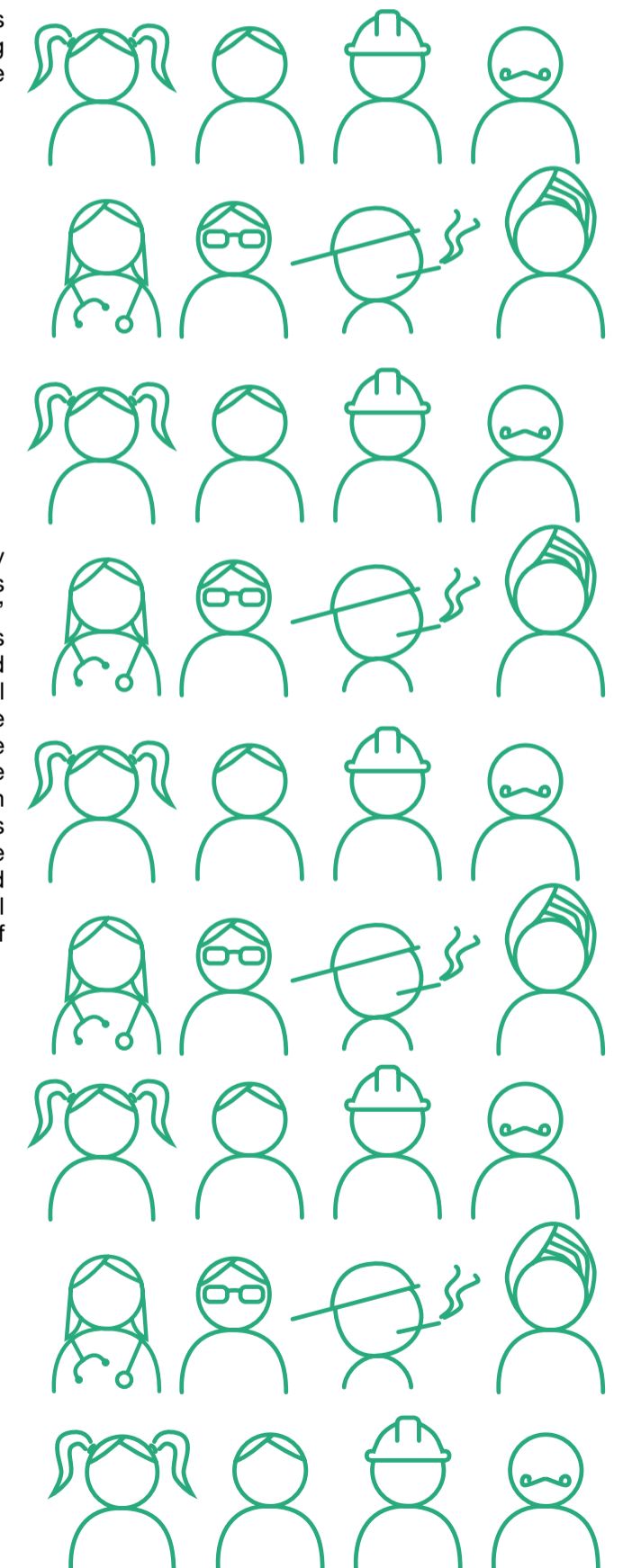
preferences were very different. Researchers conclude that 'there are visual images and marketing messages that have insinuated themselves into the nervous systems of humans.'³

**"if an ad does not
modify the brains
of the intended
audience, then it
has not worked"**

Researchers have known for decades that, '[S]cary as it may sound, if an ad does not modify the brains of the intended audience, then it has not worked.'⁴ How we respond to an advert is 'what the ad leaves behind.'⁴ Through a combination of experience and exposure to advertising, connected to emotional responses, brands and their logos become more 'mentally available', this happens through the development of new neural pathways which are reinforced by repeated exposure.⁵ Still other research demonstrates how exposure to different brands can influence the behaviour of people, for example making them behave more or less creatively, and more or less honestly.⁶ Customisable tools for neural profiling are now available to test the effectiveness of brands and logos on consumers.⁷



**"when exposed
to advertising
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How big is the problem?

Advertising is everywhere. No one can escape from its grip. Its pervasive intrusion into our daily lives - and brains - is exactly what makes it so powerful and effective. Advertising is so prevalent that we don't actively notice it anymore so we are passively exposed to its messages and incitements. In 2017, an individual (in the US) was expected to encounter between 4000-10,000 adverts daily.⁸ And these figures have been on a steep curve - almost doubling since 2007 - with the advent of digital advertising. In 2018 the car sector globally is estimated to have spent over \$35.5 billion on TV advertising - roughly equal to the annual income of a country like Bolivia.⁹

Modern advertising and marketing techniques, developed from war time propaganda methods, go back at least to the early 20th century. Amplified over the following decades together with new digital technologies they have created a whole new market called the "attention economy", with human attention now treated as a commodity by marketers and ad agencies.

Advertising occupies our everyday lives, whether in our private sphere watching TV, listening to the radio, reading newspapers and magazines, opening the mail, browsing the internet or social media. Social media channels like Instagram and the whole new phenomenon of "influencers" are now also rife with so-called "native ads" which appear like normal posts but are in fact sponsored messages. These are partly responsible for the enormous increase in the number of ads we are exposed to on a daily basis.

These adverts are also increasingly present in the public sphere with physical billboards populating our towns and cities' infrastructure, inside cinemas and not to forget ad agencies' latest trick - digital screens - which are very energy hungry.¹⁰

Advertising's presence is often subtle and its strategies to target a young audience are ever more refined. Research shows that children are now at the mercy of so-called "surveillance advertising".¹¹ It is estimated that by the time a child turns thirteen, adtech firms would have gathered an astonishing 72 million data points on them.¹² Latest research reveals that 820 million profiles of children in the UK are being broadcast daily through online advertising marketplaces.¹³ The more data collected from an early age, the easier it is for advertisers to turn young children into consumer targets.



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The number of data points recorded by ad tech firms on children by the time they reach age 13

Around 4,000 - 10,000



£28.28 Billion

spent on advertising in the UK in 2019³¹

8.7 million

deaths annually as a result of air pollution from burning fossil fuels

\$35.5 Billion

spent on car ads in 2018 globally



85%

of Fords advertising budget was spent on advertising SUVs, the vehicle behind the second biggest cause of rising CO2 levels globally

820,000,000

profiles of children broadcast online daily in the UKs advertising marketplace

Why does it matter?

As we've seen, the detrimental impacts of advertising's brain pollution on mental health, human behaviour and relationships are well established. The pursuit of materialistic goals it encourages undermines individuals' wellbeing.¹⁴ When brain pollution enters the human body it makes us feel we are lacking something, triggers feelings of inadequacy and exploits our insecurities. Marketing strategies directed at women in particular exploit bodily insecurities by promoting "beauty ideals" that are only possible to reach by buying this or that product.¹⁵

In studies, brain pollution is also seen to contaminate the human sense of care and compassion towards others - exactly the kind of behaviours on display

during the global coronavirus pandemic that helped pull so many through, and which are vital in confronting the climate emergency too. But, exposure to adverts lead us to focus more on so-called "extrinsic values", those guiding our sense of competitiveness and greed through conformity, image, financial success, achievement and power - and less on "intrinsic values" those that govern our feelings of empathy and caring towards others, expressed through affiliation, self-acceptance, community feeling and benevolence.¹⁶

Advertising sets out to increase the consumption of products and services and the sector is getting bigger.¹⁷ But overconsumption of superfluous, non-essential goods is driving planetary breakdown. Polluting, high-carbon, consumer lifestyles promoted by advertising are an obstacle to reaching safe climate and ecological targets.¹⁸ Adverts promoting large cars and privileged, frivolous flying are especially dangerous.

Over the last ten years, for example, brain pollution from car manufacturers selling large, high-pollution

Who is responsible?

When it comes to regulating advertising, national regulatory bodies are in charge of policing commercial adverts and ensuring that adverts meet their codes of conduct and guidelines. But instead of providing safeguards against the potential detrimental impacts of advertising on human wellbeing and nature - research shows that these bodies too often are enabling brain polluters. Would you trust health professionals charged with reducing the impacts of smoking on the public if its governing body included members of the tobacco industry? This however is how the UK advertising regulator operates - the Advertising Standards Authority (ASA). Representatives of the industry are effectively given the power to write their own rules.²⁶ Similarly, regulators in the USA (the National Advertising Division of Better Business Bureau) and Sweden (Reklamombudsmannen - Advertising ombudsman) are directly funded by the industry and governed by a process of self-regulation. Research in the Journal of European Consumer and Market Law points at the ineffectiveness and inconsistencies of both the UK (ASA) and Dutch advertising regulators (Dutch Reclame Code Commissie) when it comes to regulating advertising by fossil fuel companies.²⁷

The process for removing harmful adverts is particularly tedious and relies entirely on individuals' willingness to file complaints to the regulators. Advertising regulators will then only consider those complaints if they are proven to be in breach of their own, often narrow, codes of conduct - and even in those cases it is not yet guaranteed that they will follow through with them.²⁸ But these codes are far

from being adapted to changing political and social contexts or new urgent challenges like the climate emergency. For instance they are not taking into account dangers posed by the rise in green marketing claims by major polluters in the car, aviation and energy industries. Responding to the scale of this threat, in the UK recently, it took a different body, the Competition & Markets Authority, to launch a public consultation investigating misleading green claims. The ASA only recently announced plans to develop new codes, but so far no regulations have been written to restrict greenwashing in particular.²⁹

When it comes to planning regulations on advertising billboards at the local level, current policies and guidance are outdated and do not accommodate the natural concerns of councils and residents around climate, air pollution, environmental light pollution, the 'attention economy', mental health and the dominance of non-consensual adverts in public spaces. Things have changed greatly too since existing rules were made, with the rising number of applications for digital brain pollution screens and changing advertising technologies that use facial detection and tracking capabilities.³⁰

Thousands of local authorities across the world have now declared a climate emergency and some are legally required to deliver on their zero carbon pledges. The Ministry believes that controls on the most damaging forms of advertising - for high-carbon goods and services - should be included in those policies.

"sports utility vehicles" (SUVs) has risen.¹⁹ In 2018, car maker Ford reportedly spent 85% of its advertising budget promoting SUVs and light trucks in the USA, a rise from 50% just two years earlier.²⁰ In 2019 the International Environment Agency (IEA) noted that SUVs were the second biggest cause of increasing CO2 emissions (after power generation, but ahead of aviation and heavy industry).²¹ This type of advertising is not only fuelling our climate and nature crises but is promoting the burning of fossil fuels which chokes our towns and cities and whose air pollution in total was responsible for an estimated 8.7 million deaths in 2018.^{22 23}

The latest research shows that there are more than the obvious examples too. In the case of advertising for beef and tobacco products there are clear links between advertising and the climate and ecological emergency.²⁴ As the latest IPCC report warned of a "code red" for humanity, the Ministry for the Climate Emergency believes that it is time for greater public awareness of the dangers of brain pollution and the urgent need for more controls on the most damaging forms of advertising.²⁵

What can be done about it?

Governments and local authorities can use their powers to reduce brain pollution and stop adverts fuelling the climate emergency. Several cities across the world such as Amsterdam, Grenoble, São Paulo, Geneva, Norwich and Bristol have already taken steps to combat the effects of brain pollution caused by advertising. **Individuals can get involved, and officials and elected representatives find out more by going to badverts.org** Watch the Ministry's public information film at badverts.org or search #BrainPollution #Badvertising



This briefing is published by the Ministry for the Climate Emergency % the Badvertising campaign and the New Weather Institute (newweather.org) to raise public awareness of the dangers of #BrainPollution.

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Major Brain Polluters of London

London is a major centre for the advertising industry. Several advertising agencies have multiple major polluters as clients. This map shows a selection of some of the more prominent ones and with a range of the polluter companies they work for according to adbrands.net



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1 Adam&Eve

Clients include:
Exxon Mobil, Volkswagen

2 Wunderman Thompson

Clients include:
Shell, HSBC

3 Mindshare

Clients include:
BP, Gazprom, Black Rock

4 Havas Media Group

Clients include:
BP, Heathrow, Total Energies

5 McCann

Clients include:
Barclays

6 Mediacom

Clients include:
Ryanair, KLM, Shell

7 UM

Clients include:
Emirates, Exxon Mobil, Statoil

8 Wavemaker

Clients include:
Heathrow, Chevron, Texaco
Ogilvy

Clients include: BP, HSBC

9 OMD

Clients include: Barclays, Easy Jet

PHD

Clients include: Virgin Atlantic,
HSBC

AMV BBDO

Clients include: Exxon Mobil



badvertising



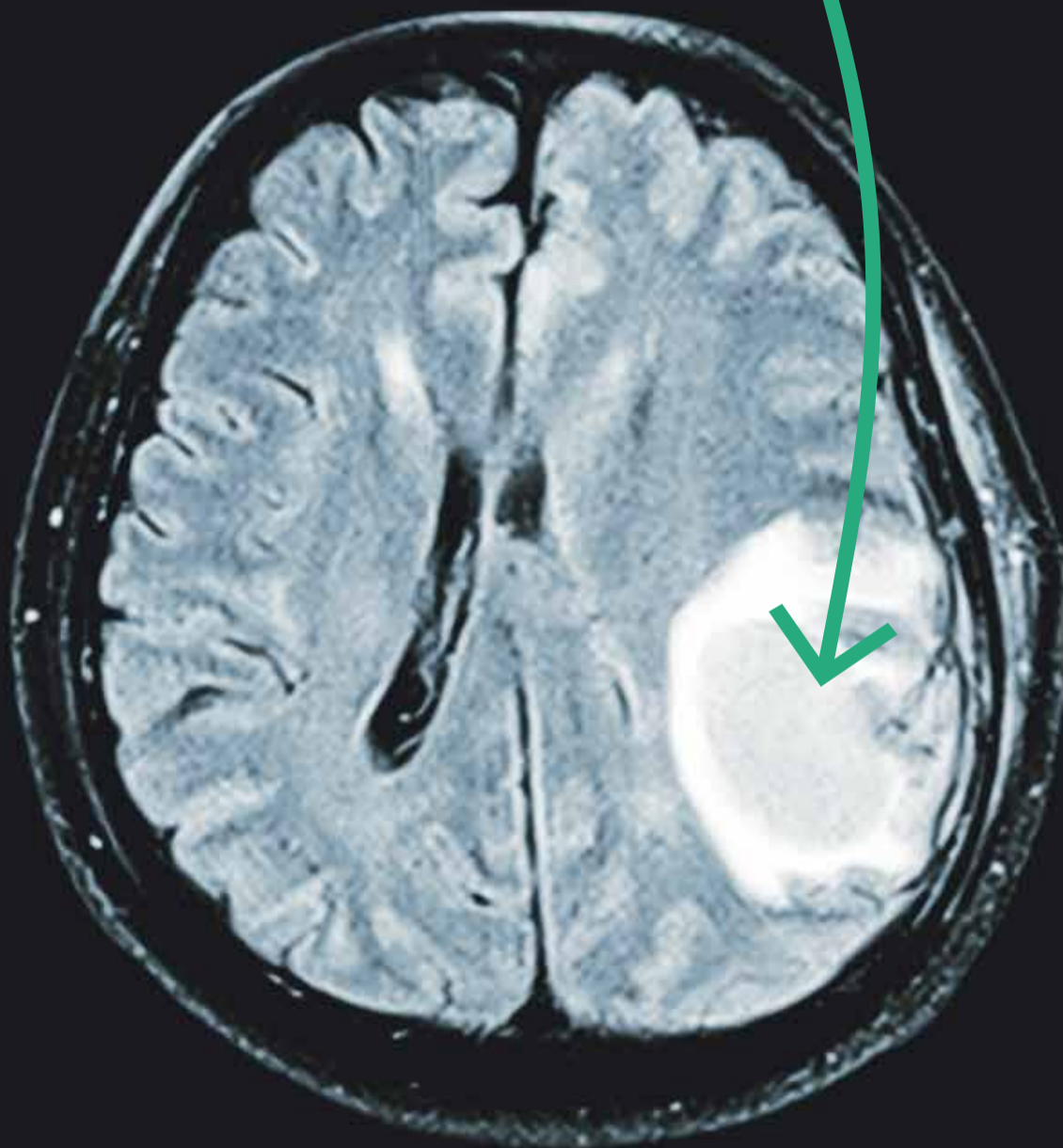
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bwa.design

It's not a
tumour.

It's an
advert...

DOB: 09/04/1980



Earth temp.



[L]

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Find out how advertising is affecting your
brain and promoting a climate crisis.

#BrainPollution

badverts.org