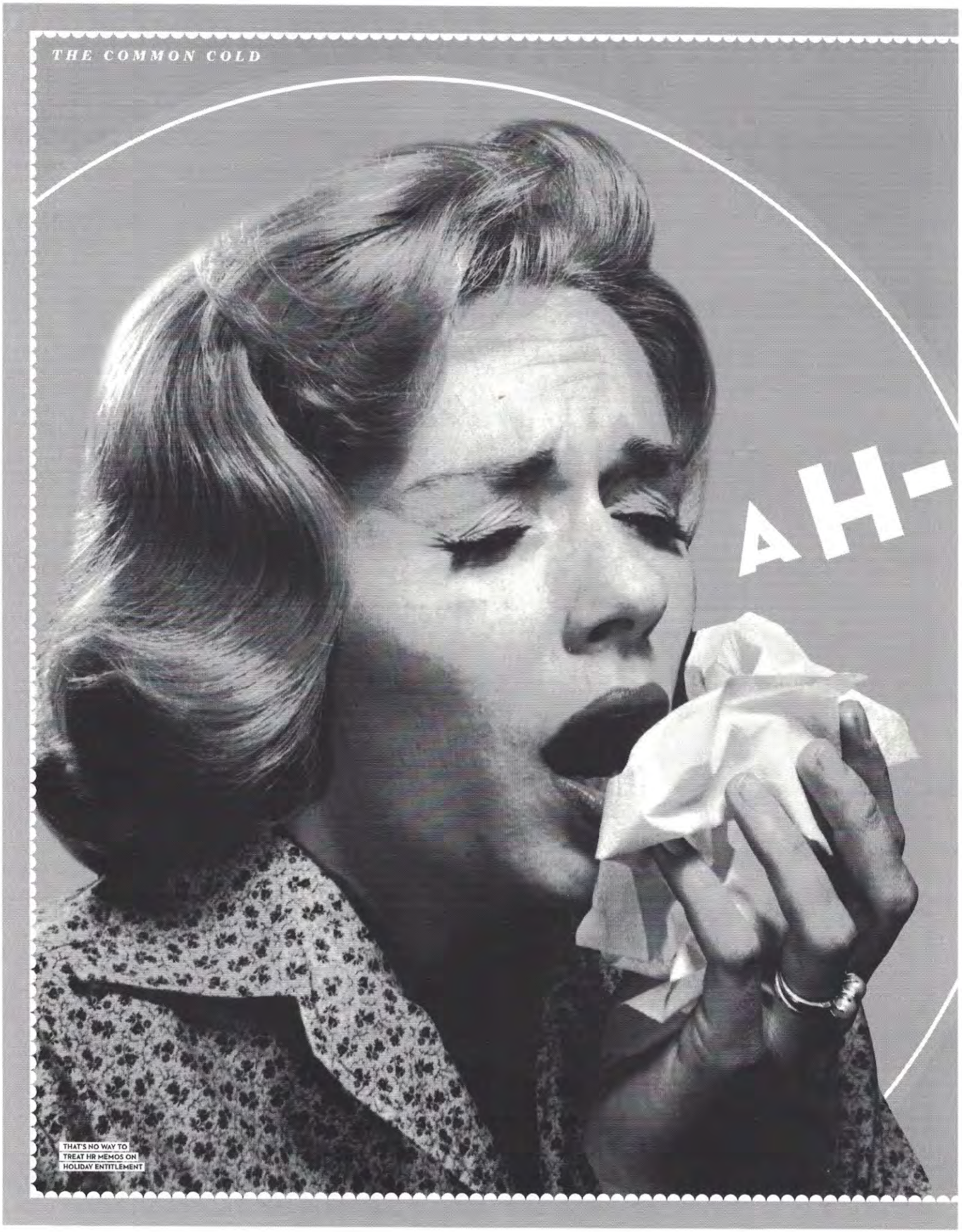

THE COMMON COLD
AH-
THAT'S NO WAY TO TREAT HR MEMOS ON HOLIDAY ENTITLEMENT

CHOO

We can gorge on vitamins, avoid germs and sterilise our hands neurotically but we can't defeat the common cold. Every year this 'low-risk illness' knocks the nation, so why can't we find a cure?

WORDS: HELEN FOSTER

There are many good things about winter: eggnog lattes, permission to sneak off home from a night out early because it's cold and wet, Burberry's sheepskin-lined biker boots... And then there are the downsides: dark nights, dropping temperatures and the near guarantee that you, your partner, and every person in your office will get at least one cold. That wretched, sniffling lurgy that means you're just as likely to spend the next three months with a packet of Kleenex in your hands and red, flaky nostrils as you are to find your bank account empty on 26 December. On average we get two to five colds a year and are four times more likely to get those colds in winter. Considering each of them lasts an average of nine days that's around five years of your life spent sneezing, coughing and generally feeling miserable.

The earliest reports of the common cold trace back to at least 500AD – we've been fighting it a good 1,500 years – so why hasn't evolution or science found a way to beat the wretched thing? It seems the cold virus is a clever little infection. "The reason deadly diseases like ebola are so rare is that they kill their host before they can pass it on. The cold, however, causes such a mild illness we can walk round with it for days, spreading it to other people. This ensures its survival and explains how it's managed to survive so long," says Professor Ron Eccles from the Common Cold Centre at Cardiff University.

There's actually two ways you can catch a cold. You can inhale it – the average sneeze sends 100,000 virus-containing droplets into the air "and the average person breathes in 15,000 litres of air every day," says Eccles. Then there's the hand route. The cold virus is so small that one million of them would fit on a one pound coin and every one of them is able to survive outside the body for up to 48 hours on areas like doorknobs, cashpoint buttons or the communal pen at the

bank – you know, things you can't help but touch. You pick them with your fingers and then rub your eye or poke a stray digit up your nose (most people touch their face in some way three times every five minutes), which then gets germs into the respiratory system where they take hold. In fact, it's estimated that one sneeze somewhere crowded like a station's escalator could infect up to 150 people in as little as five minutes via one of these methods.

Which infection route is most common is currently confounding scientists. Hygiene experts were leaning towards hand contact as the major culprit, but research published in September found that only three fewer people in every 100 got colds while using hand sanitisers than those who didn't, undermining that theory.

A COMMON CURE?

And that's the problem with the cold, it likes to confuse scientists. "One of the biggest barriers against finding a cure for the cold is that it's not caused by one virus but seven different families of viruses – all with substrains – that just happen to trigger the same symptoms when they infect us," says John Oxford, Professor of Virology at St Bartholomew's and the Royal London Hospital. The virus also mutates, changing its structure. This means the chance of there ever being one drug that'll stop it is slim. We did come close in the Sixties – a drug called Interferon, created in Finland, was found to knock out cold viruses. At the time, the Common Cold Research Centre in Salisbury called in the entire supply of Interferon for the trial – and found it worked. "Problem was, the whole world's supply treated only 20 people," says Oxford. "So it was soon determined that it was unsustainable as an option."

Professor Wendy Barclay, chair in influenza virology at Imperial College London has a different idea. "I believe the future of the cold cure is finding ways to stop us, as the host, triggering the illness," she says. "It's recently been discovered that the severity of a cold's symptoms is triggered not by the virus itself but by how intensely your immune system mounts its defence to it." Yes, that's right, you create your own miserable symptoms. In fact, when a cold enters your system a staggering 6,530 of your genes switch on or off triggering reactions designed to kill it – and many of those reactions cause symptoms. For example, fever – that's your body raising its temperature to a level where the virus can't multiply; sneezing – that's your body's attempt to get the virus coating your nasal lining out of your system. A modification of this immune response would stop cold symptoms occurring without needing to kill the virus to do it. It's hard to do though. "Not only does it mean working out exactly which immune chemicals you need to alter – you also need to determine if there are any knock-on effects in other parts of the immune system by doing it," says Barclay. She does believe a cure will come though – eventually. "In the future, when we have all had our genes mapped and personalised medicine is the norm, we'll do it as we'll be able to tailor it to people's individual genetic reaction."

THE FIVE BEST COLD REMEDIES

According to our experts

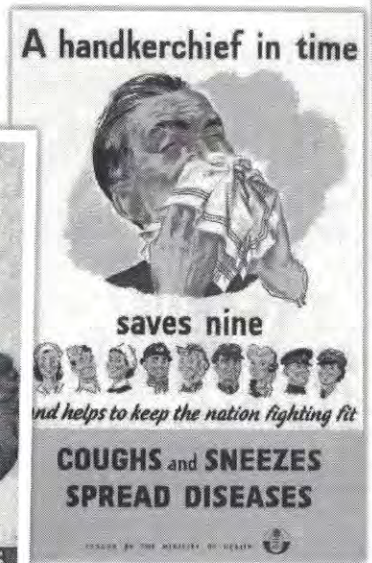
- **Professor Eccles:** "Use paracetamol to lower your temperature and a decongestant such as Sudafed or Otrivine to tackle a blocked nose. If you have a cough I prefer hot honey drinks or lozenges over cough mixtures as you can take them throughout the day."
- **Dr Mike Dixon, GP:** "I often recommend the herb pelargonium sidoides found in Kaloba (£7.99 at Boots) to cold-prone patients. It's been shown to have anti-viral as well as anti-bacterial activity and may help improve the patient's immune function."
- **Pharmacist Ann Hart:** "Oscillococcinum is a homeopathic remedy," says Hart. "Our Arab customers swear by it." It's also the number one cold cure in France. Buy at victoriahealth.com, £14.99.
- **Dr Foster:** "Echinacea's been shown to shorten the time you suffer from a cold and reduce the symptoms. Or, try Sambucol (black elderberry). It's been shown to capture respiratory viruses before they infect cells, trapping and killing them." New this year are Sambucol One-A-Day Gel Capsules, £12.99 for 24.
- **Professor Oxford:** "Vicks First Defence (£5.99) has the science behind it. It's acidic, and acidity kills the common cold virus."

NEW DRUGS

That doesn't mean that companies aren't working on finding treatments right now. Eccles is most excited about an extract of red seaweed called iota-carrageenan, which has been shown to attack rhinoviruses (these account for 30-50% of colds). University of Virginia researchers have found that a drug called oxymetazoline, already used in nasal sprays, shortens the time people suffer cold symptoms. More importantly, it reduces the amount of virus cells that live in the nose, potentially stopping it being sneezed out and spreading. Belgian researchers have found that probiotic bacteria combined with silver could stop *any* virus from infecting nasal cells (they are now working out how to put this into a nasal spray).

However, the most likely 'cure' to see the light of day in the next few years is a drug currently called BTA798. Made by an Australian company, this remedy targets a protein on the surface of the rhinovirus family of colds, stopping them attaching to nasal cells. It's currently in phase two of trials (drug tests normally have three phases) and so could be marketed within the next three to five years if all goes well. But even then it will initially only be used on people at high risk of complications from the cold such as those with asthma or cystic fibrosis. The company didn't respond to our questions asking why this is but if you listen to the cynics it's because there's a lot more money to be made in the mass market by treating the cold than in curing it.

It's estimated that the reward for finding the absolute cure for the cold will be around $700 million (£430 million) to whichever company achieves it. Market research group Mintel has found the current treatment business, which focuses almost solely on reducing symptoms, is worth around £532 million in the UK alone. "It's a constantly evolving market



because every cold season we want to believe there's something new or more effective out there to help us," says Eccles. "That's why if one year's products are marked strong, next year's will be branded double strength or ultra strength. But in fact you'll get the same type of symptom relief from established remedies such as a basic painkiller."

SELF-DEFENCE

Our best defence against the cold virus is therefore to stop ourselves catching it. And here, modern life works against us. It's no coincidence that you're four times more likely to get a cold in winter than in summer. The virus thrives at 33°C – the nasal cavity's temperature in winter.

"But we also crowd into places in winter, which helps the virus jump from person to person," says Oxford. Lack of sunlight is also a potential issue. An estimated 90% of us are deficient in vitamin D in winter as it's made from sunlight hitting the skin. "And vitamin D supports our immune system, which is the first line of defence for infection," says immunologist turned herbalist Dr Seréne Foster. In fact, according to research from Greenwich Hospital and Yale University School of Medicine, you're nearly three times more likely to come down with a cold if you're exposed to it when levels of vitamin D in your blood are low. A vitamin D supplement should therefore be part of your winter shopping list.

Another thing to put on that self-defence list is the flu jab. Pharmacist Ann Hart from Lloyds Pharmacy in London's Selfridges told us that her customers who have the flu jab in store often come back saying they also didn't seem to get as many colds either. "Flu vaccination won't protect you against actual cold viruses but what people don't realise is that influenza can cause milder cold-like illnesses too and a flu jab will stop you catching those," explains Barclay. "There's also the possibility that having the vaccination generally wakes up your immune system, making it more effective overall."

One alternative defence is to join a Californian movement called Skip The Shake. It sells blue plastic wristbands (find them at skiptheshake.com) which say, to those in the know, that you don't do hand shaking or other touchy feely behaviour like air kissing during the winter season. After all, in studies showing which occupations are most likely to transmit cold and flu bugs, those who do a lot of hand shaking – lawyers, accountants and bankers – or those who share equipment like radio DJs or TV producers are in the top 10. You'll also cut your risk of germ exposure if you disinfect surfaces and doorknobs daily when someone in the house has a cold, and wash your hands regularly at the office and always after being on public transport.

"I'd also suggest trying to stand at least a metre away from people when you're talking to them – then if they sneeze or cough the droplets are less likely to reach you," says Oxford. "If we developed the same sense of social responsibility about colds and flu that they have in Japan, transmission rates would fall. There, if someone has a cold they wear a face mask to stop infecting people – here we just soldier on."

The fact is, the best thing you can do for your fellow workmates – and yourself if you do come down with a bug – is to take the day off. After all, new research from the Department of Occupational Medicine in Herning Hospital, Denmark, said people who work when they are sick are less effective anyway – it's better to come in when you've recovered. Plus, as Jennifer Ackerman, author of the new book *Ah-Choo: The Uncommon Life Of Your Common Cold* (£14.49, Twelve Publishing) points out, "Having a cold gives us a chance to get off the merry-go-round for a few days. It's a time for uninterrupted reading, which few of us get to indulge in the way we used to." The sniffles don't sound so bad now do they?

COLD, HARD FACTS

- COLDS START TO REPLICATE IN YOUR SYSTEM WITHIN 8-12 HOURS OF YOU COMING INTO CONTACT WITH THE GERM. YOU'LL NORMALLY GET SYMPTOMS TWO TO THREE DAYS AFTER – THIS IS WHEN YOU'RE MOST INFECTIOUS.
- SOME PEOPLE WITH A COLD VIRUS SHOW NO SYMPTOMS BUT ARE 'SILENT CARRIERS' OF THE VIRUS.
- YOU'RE LESS LIKELY TO CATCH COLD IF YOU WALK TO WORK SAY STUDIES. NINETY NINE PER CENT OF TRAIN COMMUTERS CAUGHT A COLD IN THE WINTER OF 2008, COMPARED TO 88% WHO WALKED TO WORK – AND ONLY 56% OF THOSE WHO WORKED FROM HOME.

The scary, mad and smelly remedies for the common cold

500AD: Gua sha
Still practised today, this Chinese remedy sees the skin rubbed with a camphor or menthol balm then scraped with a coin (or other metal item) until blood appears under the skin. The theory is that colds are caused by an excess of the wind element in the system – and this releases them.

1700s: Dr John Hill's Pectoral Balsam of Honey
A mix of honey, plant resin, wine and a dash of opium. This was designed to be taken twice daily in water. In 1796 *The Times* warned about less effective counterfeit versions.

1900s: Mustard remedies
Still being used as late as the First World War, these saw a plaster covered with a paste of mustard and cornflour being applied to the chest. The theory was the heat loosened mucus and the stench unclogged your nose.

2000s: Airborne
This vitamin-based US remedy sold in its millions but the company had to settle a lawsuit in 2008 for more than $23 million over misleading claims that the product cures and prevents colds.

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