BEHIND THE HEALTH HEADLINES

A new wonder drug, a frightening food scare, a miraculous cure for cancer... Are the headlines in the newspapers over-exaggerated, blurring the lines between fact and fiction, just to grab our attention?

We asked experts in their fields to delve a little deeper behind some recent dramatic health headlines to uncover the truth, the whole truth and nothing but the truth, so you get the full story.

NEVER BRUSH YOUR TEETH AGAIN! NEW DRUG "HELPS ROTTEN TEETH GROW BACK"

SUMMARY OF THE STORY

✢ Researchers from King's College London have discovered a possible new treatment for tooth decay.

✢ They found that a drug called Tideglusib (already trialled on Alzheimer's patients in an attempt to help brain cells regrow) stimulates stem cells in the pulp of teeth so that they generate new dentine, the hard material beneath the enamel surface of teeth.

✢ They soaked a biodegradable sponge with the drug and inserted it into a cavity where it triggered growth of dentine and, within six weeks, repaired the damage.

But could this signal the end of fillings?

"If this drug really can boost the regeneration of dentine by stimulating stem cell growth, then it could offer a more natural, permanent and truly painless alternative to fillings," says Karen Coates, dental advisor for the Oral Health Foundation (dentalhealth.org).

"While fillings have remained highly effective in repairing large cavities, they are susceptible to wear and tear, and can need repair and replacement. Often dentists have to remove and fill a larger area each time and after numerous treatments the tooth may need to be crowned or even extracted.

> Tideglusib stimulates stem cells in the pulp of teeth

"Creating a more natural way for the tooth to repair itself could not only eliminate these issues, but also be a less invasive treatment option for patients, great for those with dental phobia!

"However, the research is still very much in its early stages and more stringent clinical trials will have to take place before we can fully gauge its effectiveness for treating tooth decay.

"It's also worth noting that the research was conducted on mice and, while testing on mice does offer an understanding of the effectiveness and safety of new drugs, its success in humans is by no means guaranteed.

"It's an extremely interesting and novel approach, though, that could be a massive step forward in the treatment of dental decay."

Karen also adds that prevention is better than cure and that we should never stop brushing our teeth. Not only can plaque build-up cause decay, but it can also lead to gum disease, which has been linked to heart disease and even arthritis.

SENSE OF SMELL IS BIGGEST TELLTALE SIGN FOR ALZHEIMER'S

SUMMARY OF THE STORY

✢ Our sense of smell is known to decline as we age and it's also acknowledged that people with dementia appear to have a poor sense of smell and difficulty identifying smells.

✢ Researchers at Massachusetts General Hospital in the US have developed a simple set of smell tests that could detect a hindered sense of smell up to ten years before memory loss occurs – and so could pick out people at increased risk of developing dementia.

✢ In the series of tests – which looked at whether people could identify different odours, and whether they can remember them over a short period of time – some who performed badly had Alzheimer's or early symptoms of dementia while others who performed poorly (and had as yet no outwards sign of the disease) were shown to have a gene variant associated with Alzheimer's disease.

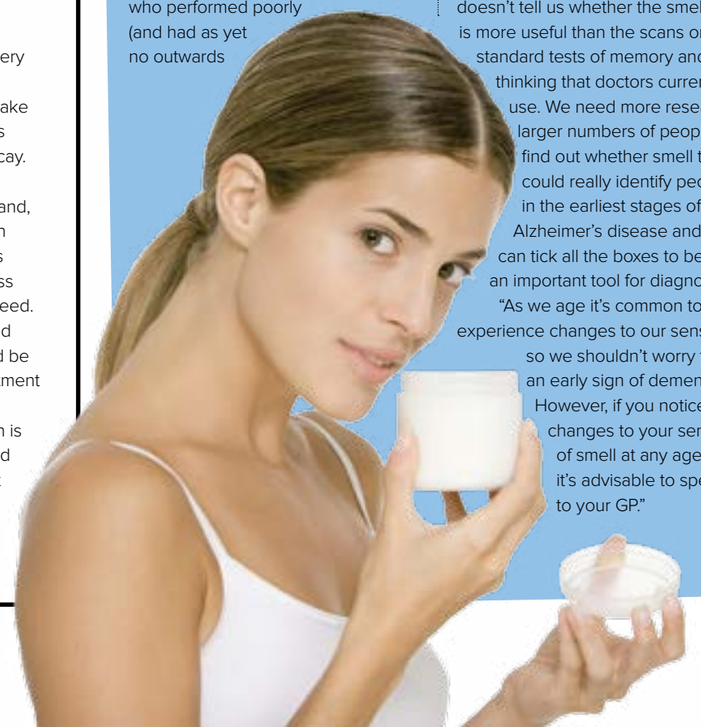
> People with dementia have a poor sense of smell and difficulty identifying smells

So could this simple smell test really help catch people at risk?

"New treatments currently being developed for Alzheimer's are more likely to be effective if they're given as early as possible, so if this test really could pick up early signs, it could be very useful," says Dr Doug Brown, director of research and development at Alzheimer's Society (alzheimers.org.uk).

"Smell tests tend to generate a lot of interest because they are less expensive and invasive than the brain scans and lumbar punctures that are currently used in research to pick up the earliest signs of Alzheimer's disease. But the story doesn't tell us whether the smell test is more useful than the scans or the standard tests of memory and thinking that doctors currently use. We need more research in larger numbers of people to find out whether smell tests could really identify people in the earliest stages of Alzheimer's disease and if they can tick all the boxes to become an important tool for diagnosis.

"As we age it's common to experience changes to our senses, so we shouldn't worry they're an early sign of dementia. However, if you notice changes to your sense of smell at any age, it's advisable to speak to your GP."



BURNT TOAST COULD GIVE YOU CANCER

SUMMARY OF THE STORY

✢ The Food Standards Agency has launched a campaign about the possible risk of acrylamide, a chemical that's created when foods, particularly starchy foods like potatoes and bread, are cooked for long periods at high temperatures, such as when baking, frying, grilling, toasting and roasting.

✢ The campaign, called Go For Gold, suggests we aim for a golden yellow colour or lighter when cooking – because the browner your chips are or the darker your toast, the more acrylamide is formed.

> The darker your toast, the more acrylamide is formed

But should we really be concerned?

"Acrylamide has been shown to be carcinogenic in laboratory animals and in 1994, the International Agency for Research on Cancer classified it as a probable human carcinogen," says Ayela Spiro, senior nutrition scientist at the British Nutrition Foundation (nutrition.org.uk). "In terms of human studies, evidence of increased risk of developing cancer in association with dietary exposure to acrylamide is limited and inconsistent. But as a precautionary approach, the FSA believes that exposure should be kept as low as reasonably practical.

"What is important to remember is that the Go For Gold campaign is not telling us to stop eating starchy foods – rather it's pragmatic advice on how to cook them. They form an important part of healthy eating for a balanced diet. For example, wholegrain starchy foods are a key source of fibre in the UK diet and there is strong evidence that higher intakes of fibre reduce the risk of bowel cancer.

"As well as following the Go For Gold advice, you can reduce the acrylamide content of foods by avoiding keeping raw potatoes in the fridge and frying foods at lower temperatures."

EATING AN EGG A DAY "KEEPS STROKE AT BAY"

SUMMARY OF THE STORY

✢ US researchers reviewed studies involving 300,000 people and concluded that eating up to one egg a day may cut a person's risk of stroke by 12 per cent.

✢ The study also found no link between egg consumption and heart disease.

So, should we all go to work on an egg?

"With this type of study researchers are looking at associations – not cause and effect," says Ayela Spiro, senior nutrition scientist at the British Nutrition Foundation (nutrition.org.uk). "Those who eat eggs regularly may have other healthy dietary and habits, for example.

"It's also important to remember that we don't eat single foods, but rather a complex interaction of foods and nutrients. So we need to look more broadly at whether the people involved eat balanced diets.

"How you eat your eggs can make all the difference too – a poached egg on wholegrain toast is healthier than an egg as part of a fry-up, for example!

"This study reinforces previous research that moderate egg consumption doesn't increase the risk of heart disease in healthy people. Eating eggs and other high cholesterol foods (like prawns) doesn't seem to have as great an effect on blood cholesterol as eating a diet high in saturated fat. However, there are some groups, such as those with familial hypercholesterolaemia, that may be more at risk from dietary cholesterol in foods."

IBUPROFEN DOESN'T WORK FOR BACK PAIN

SUMMARY OF THE STORY

✢ A study at The University of Sydney looked at over 6,000 people with back pain and found that taking non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen gave little more benefit than a placebo in easing pain.

✢ It also indicated that people who took NSAIDs were more likely to suffer from gastrointestinal problems than those who took the placebo in the studies.

NSAIDs are recommended by NICE (the National Institute for Health and Care Excellence) as a treatment for lower back pain, but, in light of this research, should we stop taking them?

No, says Mr Bob Chatterjee, consultant spinal surgeon (harleystreetspine.co.uk). "The research did show that drugs like ibuprofen were found to reduce pain in lots of people, making moving and everyday activities easier," he says. "It was just that the difference compared with a placebo was not huge and not large enough for the researchers to expound the benefits of NSAIDs.

> With back pain, different treatments work for different people

"With back pain, different treatments work for different people, so there is no 'one answer' for everybody. Although pharmaceutical treatments should be only one facet of the way we manage back pain, if you have ongoing back problems, painkillers like ibuprofen can be used to settle your symptoms to allow you to do stretches and exercise under the guidance of a good therapist.

"Regarding the risk of gastrointestinal problems, it's true NSAIDs aren't suitable for everyone and those who suffer from asthma or have an ongoing history of ulcers in the stomach can't take them. They also shouldn't be taken on an empty stomach, and if you start to get symptoms of acidity in the stomach – an upset stomach, nausea, or even bleeding from the stomach – you should stop taking them and consult your GP."

WORDS KIM JONES
PHOTOGRAPHS ALAMY, GETTY IMAGES

MELANOMA BREAKTHROUGH: "NEW DRUG 'STOPS THE DEADLIEST FORM OF SKIN CANCER SPREADING"

SUMMARY OF THE STORY

✢ Melanoma is the most dangerous form of skin cancer, mainly because it can spread quickly and attack organs such as the brain and lungs.

✢ This story looked at how researchers from Michigan State University have discovered that a chemical compound can block gene activity that causes the disease to spread, reducing the migration of melanoma cells by up to 90 per cent.

> Melanoma skin cancer is the fifth most common cancer in the UK

✢ The researchers were originally working on a compound to treat scleroderma, a rare and often fatal autoimmune disease that causes hardening of skin tissue and organs such as the lungs, heart and kidneys. They found that the same mechanisms that produce skin thickening in scleroderma also contribute to the spread of cancer.

"There are around 14,600 cases of melanoma skin cancer each year, making it the fifth most common cancer in the UK," says Dr Justine Alford, senior science information officer at Cancer Research UK (cancerresearchuk.org).

"This research is interesting, but it's still in its early stages.

"Studying cells and mice, the researchers looked at a pathway that appears to be important for the spread of certain types of cancer, particularly melanoma but also breast and stomach cancers.

"But it's too soon to say whether the same processes are at play in people. Although the scientists used human skin cancer cells, these may behave very differently in the whole body, so it's impossible to say whether what they found will accurately reflect what happens in patients. But if further research does find that this pathway is involved in cancer spread in people, then it could be an important drug target.

"The compound that the researchers used is not yet a drug for people, so the term 'drug' used in the headline isn't accurate. It's experimental and will need further development before it can be used in people."