

A vaccine for cancer

TRANSCRIPT

Note: This is not a word-for-word transcript.

Neil

Hello. This is 1 Minute English from BBC Learning English. I'm Neil.

Beth

And I'm Beth. In our lifetime, 1 in 8 people will be affected by cancer, a disease where cells grow uncontrollably and cause tumours in the body. Tumours can be benign, meaning not cancerous, or malignant, meaning cancerous, and in 2022 there were an estimated 9.7 million deaths from malignant cancers worldwide. But in this programme, we'll be focusing on some good news instead.

Neil

Vaccines are medicine which protect the human body by making it immune from a certain disease. Now, there's been a sudden and important discovery – a **breakthrough** - in the development of a new vaccine called mRNA.

Beth

So, could a vaccine for cancer soon become a reality? That's what we'll be finding out, as well as learning some useful new words and phrases. And remember, if you like listening to 1 Minute English and want to read along at the same time, you can find a transcript for the programme on our website, [bbclearningenglish.com](https://www.bbc.com/learningenglish).

Neil

Now I have a question for you, Beth. We've mentioned some of the most recent vaccines, but which disease did the first successful vaccine treat? Was it:

- a) flu?
- b) polio? or
- c) smallpox?

Beth

I'm going to say polio.

Neil

OK! Well, we'll find out the correct answer at the end of the programme. You might wonder why the body's immune system doesn't fight cancer automatically. The reason is that cancer has clever ways of hiding from our natural defences, as Dr Meredith McKean, director of research at Tennessee Oncology, explained to BBC World Service programme, The Inquiry:

Dr Meredith McKean

There's been a **number of** studies that have demonstrated the different techniques that the cancer has developed to be able to put up signals or proteins, essentially, on the surface of the cancer cells, to tell the immune system, 'Go away! **There's nothing here to look at!**' And so it's actually been **hijacking** these receptors to essentially tell the immune system to kind of take the brakes off, and be more aggressive in fighting cancer. That's really allowed a breakthrough with immune therapy over the past decade.

Beth

Dr McKean says that **a number of** studies have demonstrated how cancer spreads. She uses the phrase **a number of** to mean several, but it also makes her statement more convincing, because of course several studies are better than just one.

Neil

Cancer cells switch off the immune system by pretending to be healthy cells. It's like they're saying **Nothing to see here!** – an informal phrase which can be used to encourage people to move or look away from something, either in a playful way, or to cover something up. For example, a police officer at a crime scene might say, "Nothing to see here!" to move people on.

Beth

So, in other words, cancer **hijacks** healthy cells – it takes control of something which doesn't belong to it and uses it for its own advantage.

Neil

So, how would a vaccine change things? Well, existing treatments, like chemotherapy, aggressively target the cancer, but also attack healthy tissue, creating unpleasant side effects. New breakthrough vaccines, on the other hand, retrain the immune system to recognise cancer cells and eliminate those, and only those, naturally – even in patients with the disease already. Here's, Professor Eduardo Sanchez, of the Anderson Cancer Center in Texas, explaining more to BBC World Service's, The Inquiry:

Prof Eduardo Sanchez

Basically the cancer cells are telling the immune system, 'Don't attack me, don't eat me', right? The immune system has forgotten how to go about recognising those cancer cells, becoming **blind to** recognise those aberrations that cancer cells generate, and what we want to do with vaccines is to **re-educate** the immune system.

Beth

In cancer patients, the immune system is **blind to** cancerous growths – it completely fails to notice them or be aware of their danger, so the vaccine **re-educates** the immune system, or teaches it to behave, in a different way.

Neil

To recap, some cancer treatments work by unblocking our blocked natural defences, whereas vaccines retrain the immune system to find and attack cancer cells naturally. Because these two approaches are quite different, they can be used together and individually.

Beth

So, to answer my original question, Neil, a vaccine for cancer might not be too far away. But how about your question – isn't it time you revealed the answer?

Neil

I asked which disease was first successfully treated by a vaccine?

Beth

And I said polio. Was I right?

Neil

You were wrong, I'm afraid. The correct option was C, which is smallpox. OK, let's recap the vocabulary we've learned in this programme, starting with **breakthrough**, a sudden, dramatic and important discovery.

Beth

A number of something means several, or many, and can add credibility to what you say.

Neil

The phrase, **Nothing to see here!** is used to discourage people from paying attention or looking too closely at something, or to move them away.

Beth

If you **hijack** something, you use something that does not belong to you for your own benefit.

Neil

Being **blind to** something means failing to notice it or recognise it as a threat.

Beth

And finally, to **re-educate** means to teach somebody to think or behave in a new or different way. Once again our six minutes are up, but if you're hungry for more, head over to our website, bbclearningenglish.com, where you can find the worksheet for this programme, as well as a quiz. Good luck and we'll see you again soon. Bye for now!

Neil

Bye!

Vocabulary

breakthrough

sudden, dramatic and important discovery

a number of (something)

several or many; used to add credibility to what you are saying

Nothing to see here!

used to encourage people to move or look away from something, or to stop them from paying it much attention

hijack

take control of something that does not belong to you for your own advantage

blind to (something)

completely fail to notice or realise the threat of something

re-educate

teach somebody to think or behave in a new or different way