



**BETWEEN LIFE AND
DEATH. WHAT DOES
A PERSON IN A
COMA FEEL LIKE?**

Scientists have been trying for many years to understand what a person in such a vegetative state really feels and how to help him. Because it is almost impossible to contact the consciousness of these half-dead people, and few people who have come out of a coma, as a rule, prefer not to remember that state...

And yet – what happens to these unfortunate people locked in their own body?

Do they experience pain, fear? Do they understand who they are and what is going on around them?



DEAD OR STILL ALIVE?

Only in Europe every year 230 thousand people fall into a coma and remain in this state for a long time, and sometimes forever (30 thousand of them). The number is huge. Moreover, it is growing year by year – thanks to the latest in medicine. A sharp increase in the number of such patients followed when two novelties created by scientists in the 20th century were tested – a defibrillator that “turns on” a stopped heart with electric discharges, and an artificial lung ventilation machine that can “breathe” instead of the patient. Thus, the concept was sharply blurred: who should be considered dead, and who should be considered quite alive?

AN EXPERIMENT TO DETERMINE IF A PERSON IS IN PAIN.

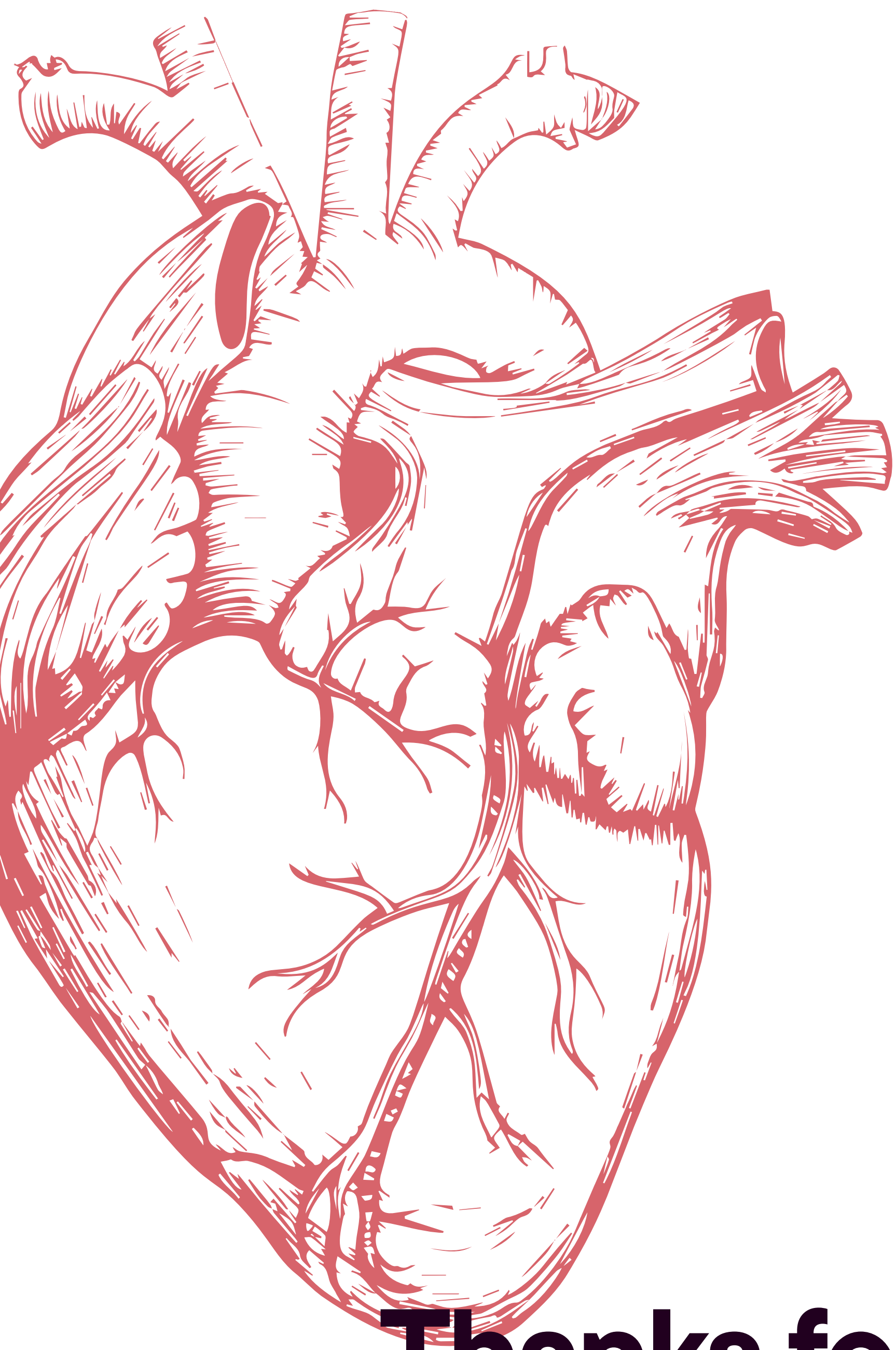
In December 1999, 26-years Canadian student Scott Rutley collided at an intersection with a police car chasing criminals. The young physicist was brain damaged and fell into a deep coma. So he spent 12 years – until his death, from an infection. Surely no one would remember his name if it were not for the persistence of Scott's parents. All these years they quit their jobs and spent caring for their son. Every day we had long conversations with him, read books to him, turned on the TV in the ward. It was they who first noticed certain finger movements, albeit microscopic, when their son heard his favorite tunes. The parents so actively persuaded the doctors to pay attention to this situation that they gave in and invited the prominent neuroscientist Adrian Owen, head of the laboratory of brain injuries and neurodegenerative diseases at the University of Western Ontario, to consult. He, although with a great deal of skepticism, agreed to check the work of the patient's brain using functional magnetic resonance imaging. Agreed – and did not regret!

"ARE YOU HURT?"

In the case of Scott Routley, the neurologist felt a special responsibility: the parents did not lose hope for so many years, they created all possible conditions for their son. They hoped that he would not leave them without talking in the end. And she was incredibly happy when their expectations were rewarded. The essence of the experiment is this: while the brain is being scanned by a tomograph, a person is asked questions. A glow in one or another part of the brain proves that it has been activated, and this allows you to receive answers.



The scientist asked the comatose, "Scott, please imagine that you are playing tennis!" In response, spots began to light up on the screen where the brain image was projected, that is, contact was established. After simple questions followed by an obvious on-screen reaction, Adrian, with his parents' permission, asked, "Scott, are you hurt? If not, imagine yourself playing tennis again." Fortunately, the same spots appeared on the screen as after the first question...



Thanks for attention!

Elen Esayan